

Internal debt management in Africa

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Preface

This paper discusses various aspects of the problems African governments face in financing their generally large budgetary deficits. Its primary objectives are to focus on the main methods of financing which are realistically available given the generally thin financial markets in Africa, and to identify the reasons why each of these methods imposes clear limits on how much funding a government can raise without imposing high costs on its country's economic progress. It is not the purpose of the paper to explore the reasons why African budgetary deficits stand at such high levels, although two particular matters of relevance to this question, namely the influences of financial sector insolvency and the effects of adjustment programmes, are considered in some detail. In general we are not trying to make judgements about whether it is bad policies, bad luck or some combination of these which account for the high deficits. Nor is it the purpose of the paper to judge either the possible excesses of public expenditure or the possible inadequacies of the revenue-raising efforts. Rather, by focusing on the problems posed for economic management by the financing of large deficits, it attempts to suggest certain technical economic reasons why African governments often do need to restrain their own deficits, however caused, as part of a sound package of adjustment measures.

This somewhat back-to-front, and possibly unconventional approach, is adopted in order to identify a relatively wide range of substantially under-researched issues which individual African countries need to address if they are to have a clearer view of the realistic limits on public deficits, and how these deficits might be better managed. The presumption here is that while political judgements are necessarily invoked in debate about public expenditure and taxation policies in poor countries, there is a need for more and better research on some issues to filter out the genuinely political issues from the largely technical ones. If, to take a simple example, there is some rate for the inflation tax beyond which public revenues from that tax would actually decline, it is important to know why and what the critical rate might be. Armed with that knowledge, it is possible to perceive that reductions in public expenditures, designed to help curtail the use of the inflation tax, are not always and inevitably a threat to living standards or the level of provision of public goods. On the contrary, they may defend these. Furthermore, while the issues and techniques associated with taxation are well known and well documented, those associated with the financing of deficits are relatively little explored, either conceptually or empirically: like the deficit itself they are often treated as a matter of only residual interest.

There is little in this paper which can claim to be original other than the bringing together of a relatively wide range of issues in an attempt to define a research agenda for interested African scholars. In order to interrupt the flow of the paper as little as possible, indications about possible research questions are listed separately as Research Issues at the end of the paper. Following further discussion with interested parties, it is proposed that these issues be packaged together to form a number of research projects for implementation either in individual African countries or, on a comparative basis, in several countries at the same time.

The outline of the paper is as follows. Section I briefly describes the trends and prevailing magnitudes of fiscal deficits in Africa, and provides some discussion of the main components of these deficits and the ways in which they relate to Africa's external debt problem. This discussion is supported by brief descriptions of the situation in selected African countries for which appropriate data are available. A separate Appendix elaborates this more fully for 13 countries. Section II attempts to describe the main financing mechanisms which are realistically available to the typical African government, and briefly notes some of the advantages and disadvantages of each of these. Section III utilizes some relatively simple theory to show in more detail why there are limits on each of the main methods of budgetary finance, namely domestic borrowing, external borrowing and inflationary finance. Sections IV and V look at two issues which currently impinge very severely on the fiscal and deficit-financing problems of many African countries. The first of these, which is covered in Section IV, is the important but grossly neglected issue of the impact of banking-sector crisis and insolvency on fiscal deficits and their financing. Section V acknowledges that the magnitude of fiscal deficits, as well as the problems associated with their financing, will both be affected by some of the adjustment policies which African countries are increasingly urged to adopt. Discussion in Section V concentrates on just two such policies, namely the more active use of the exchange rate and interest-rate reform. Finally, Section VI explores some of the tax and other reasons which discourage saving in Africa and, in particular, the impediments in the way of the emergence of capital markets from which African governments could, in principle, extract significantly more voluntary financing of their deficits than they currently achieve.

I. Introduction

The first nine years of the 1980s saw a generally worsening situation for fiscal balance in the developing countries as a whole, with the overall deficit rising from the equivalent of 1.5 percent of GDP in 1980 to a peak of 6 percent in 1987, after which it declined slightly. In Africa, the situation has been persistently worse than the developing country average. In 1980, the average fiscal deficit in Africa was equivalent to 4.7 percent of GDP; it rose to a peak of 8 percent in 1987, but even in 1988 it remained well in excess of 7 percent (IMF, 1988). This major and continuing financing gap creates a variety of serious problems for economic management, several of which are analysed in depth in later sections of this paper.

The persistently high deficits are the result both of policies, which in the 1980s have sought to moderate expenditures while increasing revenues, and exogenous circumstances which have worked to make the fiscal situation worse. As regards the first of these, a recent World Bank/UNDP report (World Bank and UNDP, 1989) has noted that, since 1980, at least 29 Sub-Saharan African (SSA) countries have had fiscal adjustment programmes, most of which included efforts to improve fiscal balance. Most of these have combined efforts to reduce spending, and especially wages and salaries,¹ and to increase revenues. In the period 1980–1984, for example, 26 of the 27 SSA countries operating IMF-supported adjustment programmes were targeting a reduced ratio of government expenditure to GDP as a part of that programme. Many programmes also incorporated restraints on non-wage recurrent expenditures such as subsidies, as well as on public investment outlays. As regards exogenous circumstances, the two most important have been the sharp, 30 percent on average, decline in the SSA terms of trade since 1981 and the higher interest charges on debt caused by higher interest rates and, in the case of a few countries only, increased dependence on non-concessional loans. The terms-of-trade story is a relatively complex one which has affected the five middle-income oil-exporting countries of Africa² rather differently than the poorer IDA countries. However, its general fiscal effect has been to render more difficult the revenue raising aspirations of the countries concerned (see Research Issue No. 1). Thus, notwithstanding the efforts in this direction already referred to, fiscal revenues relative to GDP have either fallen or stagnated in both the SSA area and in Africa more generally.³ Interest payments are also an extremely important part of the explanation of ris-

cent in 1980–1983 to some 14 percent by 1986–1987.

In short, despite prodigious efforts and considerable political courage in some cases, African governments generally have not succeeded in bringing deficits down to manageable, or easily financeable, levels. Revenues, as already noted, have declined slightly relative to GDP and total expenditures have remained stubbornly at around 31 percent of GDP. The financing problems associated with fiscal deficits averaging around 8 percent of GDP are further complicated by the quasi-fiscal deficits arising from the activities of public enterprises. The 1989 World Bank/UNDP report already referred to (World Bank and UNDP, 1989), notes that an amount equivalent to 1 percent of GDP (or about 14 percent of the fiscal deficit narrowly defined) can be ascribed to the financing of the losses of public enterprises. In addition, the 3,000 or so public enterprises operating in SSA account, on average, for at least 15 percent of domestic and external borrowings. Such borrowing has many of the same consequences that are associated with government financing of its own deficits. Furthermore, in many African countries the dividing line between the two types of financing operation is blurred because, for example, the loans in question are guaranteed by government, ultimately assumed as liabilities of the government, or used for projects which are viable, if at all, only in social and not financial terms (see Research Issue No. 2).

Equally blurred, but again a net addition to the totality of the public-sector financing problems of many African countries, are the rediscounts and guarantees of private-sector loans made available by central banks. These will normally be financed via monetary/inflation mechanisms, but do not necessarily show up in fiscal deficits as such. However, by pre-empting part of one of the main financing mechanisms available to government, they make the financing of the fiscal deficit, narrowly defined, that much more difficult (see Research Issue No. 3).

The severe and persistent public-sector financing problem in Africa has a clear and obvious connection to its external finance and debt problems. Although the absolute size of Sub-Sahara Africa's external debt, at some \$130 billion, does not pose the same problems for global economic stability as does that of the major Latin American debtors, it has many particular features which condition future economic prospects. First, the SSA debt has grown more rapidly over the last decade than that of any other region and, as a consequence, the main debt indicators are now worse than for most other parts of the world. The SSA debt-to-GNP ratio, for example, has risen from 21 percent in 1975 and 28 percent in 1980 to something in excess of 100 percent at the present time. At the same time, the debt-to-exports ratio averages more than 350 percent, while debt-service obligations, not all of which are met on the terms originally agreed, are equivalent to over 36 percent of export earnings as compared to less than 10 percent in 1975 (World Bank and UNDP, 1989). Furthermore, the ratio for the poorer IDA countries is substantially higher than this average with almost 50 percent of export earnings being notionally obligated to debt service in 1987.⁴

The major link between the public finances and external debt is the fact that official development assistance—always the largest part of the SSA debt—has

been growing faster than all other financial flows, to the point that in 1986/87 it accounted for about 90 percent of all net flows. The story of the 1980s has largely been one of a rapid decline in the nominal value of private net flows, especially to 1984, matched by a rise in net ODA disbursements which has been considerably more rapid than that received by other regions of the world. Gross disbursements of private long-term lending in SSA, which in any case is concentrated on only a handful of middle-income countries, amounted to only \$3.3 billion in 1986-1987. However, since this represents a considerably lower figure than in the past, and was matched by a large debt-servicing obligation, the situation in recent years has been one of significant, albeit declining, transfers back to private lenders from SSA countries. Thus, to the extent that African governments draw on external grants and loans to finance their own activities, they have become dependent, with few exceptions, exclusively on official sources.

Furthermore, the external funding of fiscal deficits has been affected by two further points. First, governments have either explicitly or implicitly guaranteed some of the loans of their private sectors, and so some part of the negative net transfer associated with these loans is finding its way into the total of fiscal or quasi-fiscal deficits (see Research Issue No. 4). Second, the real interest rates on non-concessional debt (defined by reference to the region's index of export prices), has averaged well over 10 percent per annum through the 1980s.⁵ On the more positive side, the average grant element of long-term loan commitments increased from less than 20 percent in 1981/82 to over 50 percent by 1987. Although the numerous debt reschedulings in the region have often resulted in some increase in non-concessional loans, the overall outcome has been such that only 15 percent of new loan commitments in 1987 were made on non-concessional terms as compared to 50 percent or more some four years earlier.

The deficit situation in individual countries

Against the broad trends just discussed, it is useful to look briefly at the deficit situations in a few selected African countries and to consider how these have been financed during the 15 years since 1974. For this purpose, information on 13 countries for which comparable data were available in *Government Finance Statistics* were analysed, and the results are presented in the Appendix. Here we merely look at the main features in seven of these countries.

Botswana

Of the 13 countries examined, Botswana is clearly an exception in so much as its fiscal position has been in surplus since 1982. Indeed by 1985, the surplus had reached 25 percent of GDP. Clearly deficit financing has not been an issue. However, for the remaining 12 countries, deficits have often been very substantial and have given rise to a varied and changing structure of financing. Several countries have had low access to external funding because of their political standing in the world, or because of poor economic policies, or both.

Occasionally this has been amended as "successful" adjustment programmes have been put in place. Ghana is a good example. Other countries not enjoying good access to external financing of public deficits have included Sierre Leone, Uganda, Zaire and Zambia. Zimbabwe has fared much better in this regard. For most of the countries considered below, the story is one of high deficits financed in varying proportions by official financing from abroad or by borrowing from the domestic monetary authorities.

Ghana

In Ghana, financing requirements, after reaching 9.5 percent of GDP in 1977, fell to 4.2 percent in 1980 as both revenues and expenditures relative to GDP declined with the general demise of formal economic activity. Compared to African averages, Ghana's deficit has been modest, but only because of the unusual situation confronting that economy. Throughout the 1970s, domestic sources of financing were prevalent, with the monetary authority normally supplying 60 percent or more of total financing. However, as the adjustment programmes began in 1983, external sources of funds became far more important and by 1985 they had come to finance about 46 percent of the deficit. Much of this was short- and medium-term financing on a concessional basis. During the same period, the relative importance of financing from the domestic monetary authorities declined significantly.

Sierre Leone

In Sierre Leone, the central government deficit rose to 15.3 percent of GDP by 1980, and subsequently has normally exceeded 7 percent of GDP. In 1974, the external financing contribution to the deficit amounted to 62 percent of the total, but this has subsequently declined and between 1979 and 1984 was never greater than 32 percent of the total. Within the large total of domestic financing, the monetary authorities have been easily the most important contributor with between 79 and 84 percent of the total in the period from 1981 to 1983. That has lessened somewhat in subsequent years.

Uganda

In the case of Uganda, a high deficit equivalent to 9.5 percent of GDP in 1974 declined significantly in the next few years for reasons of economic decline comparable to those experienced in Ghana. Domestic sources were easily the most important contributor to the financing in most of the years of the Amin government, and in several subsequent years as well. This was a natural consequence of the extremely poor expenditure controls, wholly inadequate revenue efforts and Uganda's extremely poor access to external funds. As circumstances normalized somewhat in 1984 and 1985, external funding expanded to meet, for example, 21 percent of total requirements in 1985. However, both the absolute and proportionate dependence of domestic monetary financing remained high.

Zaire

Zaire's deficit of 17.6 percent of GDP in 1974 was high even by African standards, and was certainly high for that period. In that year, external financing supplied 36.5 percent of requirements as compared to about 60 percent from the domestic monetary authorities. However, deficits were reduced sharply by the late 1970s, and by the mid-1980s Zaire had achieved a budgetary surplus. The access to external financing declined during that same period, and in 1982, for example, provided only about 7 percent of total financing as compared with over 93 percent from the monetary authorities. Although published data thereafter are poor, it appears that the dependence on monetary financing became even higher.

Zambia

In the case of Zambia, a small budgetary surplus in 1974 has given way to generally large deficits in recent years: in the range of 8–18.3 percent of GDP in the early 1980s, for example. In many years, Zambia has been able to obtain substantial funding from international development institutions and foreign governments. In 1983, 1984 and 1985, for example, these sources accounted for 109.5 percent, 97.8 percent, and 97.2 percent, respectively, of the total deficit financing. However, when domestic financing has been required this has mostly come from the monetary authorities. In 1981 and 1982, for example, this accounted for 64 and 54 percent of the respective totals.

Zimbabwe

Zimbabwe provides an interesting contrast to Zambia in so much as a large part of its external financing comes from "other non-official sources". Overall deficits have fluctuated in the range of 5–11 percent of GDP during the period. Following the political settlement in 1980, external financing has made a significant contribution amounting to 21 percent, 56 percent and 24 percent in 1980, 1981 and 1982, respectively. Later on, such contributions became even more important, rising to the equivalent of 50 percent and 83 percent of requirements, respectively, in 1984 and 1985. A substantial part of these transfers was from "non-official" sources. Although the contributions from the monetary authorities appear to have been fairly modest in the 1970s, they expanded thereafter to meet 29 percent and 44 percent of requirements in 1981 and 1982, respectively.

II. An overview of financing methods

In this section we look first at the possible methods available to African governments for financing their generally large deficits. Then we explore some of the macroeconomic consequences of the various methods: an issue elaborated in greater detail in Section III.

Standard textbooks on financial/monetary issues typically refer to three main methods of deficit finance, namely:

- (a) Finance through money creation (“inflationary” financing);
- (b) Finance through sales of government securities (“non-inflationary domestic financing”); and
- (c) Finance through external borrowing (“non-inflationary” external financing”).

Method (a) is differentiated from (b) and (c) in that it does not lead to any increase in a stock of debt, and in this sense is analogous to conventional taxation. Hence, the label “inflation tax” is often attached to this form of financing. By contrast, since the debt incurred by government if it chooses to finance deficits through methods (b) and (c) will carry interest charges, the *net* contribution of such financing to long-term deficit financing is less than the *gross* contribution. Hence, the eventual consequence of dependence on these methods may be a need for a rise in conventional or inflation tax revenues. For this reason, the label “non-inflationary”, which is sometimes attached to these two methods of financing, is misleading. There are several mechanisms, some of which are discussed in Section III, through which an excessive dependence on such methods will certainly boost inflation rates.

This proposition becomes clearer if we note that textbook analysis often assumes that domestic sales of government securities are normally organized on a voluntary basis in markets where prices and interest rates on such securities are freely determined by the forces of supply and demand. In practice, this is rarely the case in developing countries, and it is certainly not the norm in Africa for two main reasons. First, with some important exceptions such as Nigeria, Zimbabwe, Kenya and Côte d’Ivoire, African capital markets are embryonic or non-existent and certainly do not provide the basis for the voluntary absorption of more than a small part of the debt which governments need to float to cover deficits. Second, the majority of African governments maintain extremely strong administrative controls on interest rates (often for reasons linked to their large

deficits), and certainly do not allow the free movement of rates that would be the necessary incentive to voluntarily sell the large volumes of debt issues required (Hansen and Neal, 1984). Thus, for all practical purposes, and in most of the discussion below, it can be assumed that voluntary sales of securities make no contribution to the problem of financing deficits (see Research Issue No. 5).

What is really involved in relation to financing method (b), above, is a variety of compulsory mechanisms whereby governments in Africa place their debt. Because such mechanisms invariably involve interest rates below market levels, the increase in debt which they also involve can be regarded as a mixture of taxation and debt accumulation in a true sense. There are essentially five sub-divisions of method (b) which are important in developing countries, including those in Africa.

Methods of finance through sales of government securities

1. Reserve requirements on banks and other financial institutions

This is a straightforward financing mechanism as far as the government is concerned. Since interest rates paid on required reserves are normally set at zero, or well below "market" interest rates, the tax element involved is large. It is, therefore, a method which can be highly distortionary in that, for a given profit target in the banks, it requires the banks to maintain a far larger margin between deposit and lending rates than would otherwise be necessary. A deposit interest rate of, for example, 10 percent with a required reserve ratio of 40 percent would require a bank lending rate of almost 17 percent even before allowing for the banks' administrative and other costs (i.e. 17 percent on loans of 60 units is equivalent in revenue terms to 10 percent on loans of 100 units). Given that the demands for bank credits are sensitive to interest rates, loan demand is depressed by this method, as too is the demand of the banks for new deposit to on-lend. In short, the consequence of a high reserve requirement is the contraction of the financial system, which means, above all, that the tax base on which the reserve requirements tax can be levied is progressively reduced.⁶

2. Required purchase of government bonds by banks at controlled interest rates

This has exactly analogous consequences to the required reserves already discussed, with the one exception that the interest rate paid on bonds is normally greater than zero although less than the market rate. Thus, the tax element of this method, and its distortionary consequences, will be less than in the previous case. The important point about the control on interest rates is that if the government is also using inflationary methods of finance (method a), the real burden of government debt is reduced as inflation takes its course without there needing to be any compensation to savers in the form of higher nominal interest rates. However, in a highly inflationary situation, the distortion is large, and any

suggestion that this is a sound basis on which to stimulate the development of capital markets is fallacious in the extreme.

3. Required purchases of government bonds by banks at market interest rates

This approach will not involve any tax element and nor will it have the distortionary consequences associated with the other two approaches. However, with inflation rates in Africa generally high and rising through the 1980s, it has not normally proved possible for African governments to accept the extremely high nominal interest rates on bonds which this approach would require. In addition, if expectations of higher future inflation are well established (which is not unreasonable when deficits are high and rising), this approach may well require highly positive real interest rates in excess of rates of economic growth and returns on public-spending projects. Thus, in a high-deficit, high-inflation environment this approach to deficit financing is a recipe for an unstable/explosive growth of the government's financing gap.

4. Credit rationing in the presence of controlled interest rates

Where credit is rationed but banks are not permitted to fix deposit interest rates so as to balance deposit and credit growth, an unlent surplus of funds in the banks is an inevitable consequence. Governments are able to capture this for their own financing purposes through a variety of measures, including the issue of special securities carrying below-market interest rates. The distortionary effects are analogous to those under 2, above, except that those in the private sector who come out well from the credit rationing process gain will, in effect, share the tax revenues associated with artificially low interest rates with the government.

5. Arrears of government payments

Many African governments, in common with governments elsewhere in the developing world, have spent large parts of the 1980s in a state of severe liquidity constraints, if not insolvency. Uganda and Ghana are two of the more obvious examples. In this situation, the failure to pay outstanding obligations, either to employees or to the suppliers of goods and services, appears, on the basis of casual evidence, to have become an important source of government financing. This "borrowing from suppliers", or "arrears", is obviously an extremely unsatisfactory basis for financing the government for several reasons. It is clearly an involuntary form of financing as far as the lender is concerned and, since it is unlikely to involve any interest payment on outstanding balances, the tax element is a large part of the total. However, unlike some of the other methods described above, its distortionary effects do not involve any discouragement to the holding of monetary and other financial assets and so a discouragement to the growth of the financial sector. However, it will be distortionary in so far as the government's example is almost certain to lead to a general collapse of respect

for the law of contract and to a pervasive failure of private economic agents to make the payments required of them. In particular, since most suppliers of the government are also taxpayers, the rate of collection of tax revenues may well suffer in a very direct manner (see Research Issue No. 6).⁷

Taking account of these various points, it is perfectly realistic in an African context to recast the three main sources of government financing listed on page 6 as:

- (a) Finance through money creation ("inflationary finance");
- (b) Involuntary domestic lending to government through the various channels just listed;
- (c) Finance through external borrowing (see Research Issue No.7).

Direct and indirect sources of funds to government

The next point to note is that the connection between the direct source of the government's financing and the real balance of deficit financing as between domestic and external source is a tenuous one. This follows from the familiar national accounting identity, namely that:

$$(1) \quad S_f = (I_g - S_g) + (I_p - S_p)$$

where the subscripts g and p indicate government and private, respectively.

Let us assume that the investment schedule of both the private and public sectors shows some negative response to the real interest rate, while the savings supply, both from domestic savers and from abroad, is positively responsive to real interest rates. Then either an increase in I_g or a reduction in S_g will raise the equilibrium interest rates at which total domestic investment is financed. Low interest elasticities and the absence of administrative controls will certainly imply larger movements of interest rates in this situation than will high elasticities, but the direction of interest-rate movement is unambiguous. Thus, for example, if the whole of an increase in government expenditure is financed through foreign borrowing, the higher cost of such funds at the margin will divert some foreign borrowing away from the private sector. Equally, higher direct government borrowing from domestic sources will drive some private-sector borrowers into a greater dependence on foreign loans (see Research Issue No. 8). Since the counterpart of the higher total overseas borrowing in both these cases is a worsened current account balance of payments deficit, it is also clear that this deterioration can occur independently of the method the government chooses to directly finance its own enhanced deficit. Some recent estimates for developing countries in general have suggested that about 75 percent of any increase in budgetary deficits feed through into the current external account, irrespective of the method of finance chosen (Balassa, 1988). In short, enlarged government

deficits either result directly in increased external borrowing, or they force the private sector into increased borrowing from that source.

The final point to note in this context is that the substitutability of domestic and foreign sources of financing, implicit in the discussions of the previous paragraphs, will apply only while levels of accumulated external debt are below the point at which further increments to such debt begin to generate a penal risk premium element in the interest rate which is charged. When this point is passed, the whole of any increase in a government's deficit is likely to fall on domestic saving, and so directly crowd out private expenditures.

III. Inflation, fiscal deficits and debt management

It is possible to examine the economic consequences of the three possible methods of financing described in the previous section, and their interconnection, in a number of ways. We will focus on four main issues, namely the limits of inflationary finance; the limits on external funding; the trade-offs between inflationary finance and involuntary funding from domestic savings; and the trade-off between inflationary financing and external debt.

The limits of inflationary finance

As already noted, the financing of government revenues through money creation⁸ has all the main properties of conventional taxation. In particular, it avoids the creation of a stock of debt; and it distorts economic activity by discouraging the use of the item, namely the services of money balances, on which the tax is levied. Although hard-stretched governments, and especially those which have lost access to external borrowing, find it all too easy to expand reliance on money creation, it is analytically well established that the revenue gains from this approach are strictly limited. This is evident from the simple and familiar model presented in Fry (1988). Specifically, if the net foreign assets/liabilities of a country are ignored, the consolidated balance sheet of its banking sector is given by:

$$(2) \quad DC_p + DC_g = M$$

where DC = domestic credit

M = money supply

$$(3) \quad \text{and } DC_p/PY + DC_g/PY = M/PY$$

where PY is the nominal value of GDP

If the demand for real money balances is a negative function of the inflation rate (π) as, for example, in the equation

$$(4) \quad Md/P = \emptyset e - \partial \pi$$

and if we suppose that all the revenue from the inflationary tax accrues to the government, then in any given year those revenues (R) in real terms are given by:

$$(5) \quad R/P = \pi.(\emptyset e - \partial \pi)$$

where \emptyset and ∂ are numerical parameters.

Solving this last equation for different values of the rate of inflation and two alternative values of the numerical parameters, \emptyset and ∂ , shows alternative optimal rates of inflation (indicated by*), beyond which revenues will decline (see Table 1) (Van Wijnbergen 1988). The second set of simulations in Table 1 is for the case where money demand is relatively insensitive to higher inflation.

Table 1 Inflation tax revenues and the rate of the inflation tax

Inflation rate (%)	Revenues ($\emptyset = \partial = 5$)	Revenues ($\emptyset = 7.5, \partial = 2.5$)
2.5	0.11	0.18
5.0	0.19	0.33
10.0	0.30	0.58
15.0	0.35	0.77
20.0	0.37*	0.91
30.0	0.33	1.06
40.0	0.27	1.10*
50.0	0.21	1.07
60.0	0.15	1.00
70.0	0.11	0.99
80.0	0.07	0.81
90.0	0.05	0.71
100.0	0.03	0.62

* The point at which the rise in revenues in response to higher inflation ceases (i.e. the optimal point)

Using a slightly more complex version of this same model, the parameters of which are given later, Fry suggests that the maximum deficit which can be financed through inflation is about 7.7 per cent of GNP, implying an inflation rate of some 46 percent (see Research Issue No. 9). However, this "optimal" inflation rate is optimal in only a very partial sense and there is little dispute that the inflation rate to be targeted by any responsible government is very substantially lower than the maximum implied by such models. There are several reasons for asserting this. First, high inflation (i.e. beyond 20-30 percent) almost always

involves more volatility of inflation and enhanced uncertainty, which, in turn, implies lower investment. Second, higher inflation may well reduce the real revenues from conventional taxation because of lags in collection, and may also enlarge government deficits if, as is likely, expenditures are more inflation-proof than revenues.⁹ Taking account merely of lags in collection, Tanzi (1988) has simulated results which suggest, for example, that a rise in inflation from zero to 50 percent could reduce the revenue:GDP ratio of 20 percent to less than 16 percent, which would almost match the rise in the inflation tax revenues. Third, and most important, high rates of inflation, while they may be visible to all, will involve a differential ability to respond in different segments of society. Hence, arbitrary, unplanned and probably large redistributions of income incentives are the inevitable result of high inflation. While it could conceivably be the case that aggregate saving might be enhanced as a by-product of this redistribution, most of the evidence suggests that it retards economic growth (Thirlwall, 1974).

The analysis stemming from the logic of equation (5) illustrates why a government, purely for narrow revenue-raising reasons, should wish to restrict its use of inflationary financing. However, there are other policies commonly used in Africa and other developing countries which can shift the Md function downwards and so raise the inflation rate required to meet any given size of the deficit. For example, taxes and ceilings on interest rates are likely to operate so as to reduce money demand for any given combination of income, prices and inflation. Similarly, policies such as the selective direction of credit may result in the sub-optimal use of bank resources, in lower volumes of credit in total, and so in a reduced mobilization of deposit balances through the banking system. In short, one class of financial sector policies, introduced in part to facilitate public sector financing,¹⁰ may well raise the inflationary costs of the government's own financing programme. In a very repressed financial system, the maximum deficit:GNP ratio which could be financed at "acceptable" rates of inflation could be very low indeed.¹¹

The limits of external financing

There are two main routes through which the financing of deficits with external borrowing can be argued to be limited. The first relates to the supply function of foreign saving (i.e. the willingness of foreigners to lend and the associated terms of the loans), and the second relates to the response of domestic economic agents to rising debt.

As regards access to foreign saving, any country can be expected to face a supply curve of foreign financing which will either be flat or upward sloping. However, a large backlog of debt, and accumulating evidence of an actual or prospective inability to service that debt, will cause a radical upward shift of that supply curve to the point that further borrowing on "acceptable" terms ceases to be available. Many African countries have already reached this point (see Note 4). Arrears on interest obligations, at around \$5 billion, are equivalent to about

half the level of actual debt-service payments. In this climate, two main things have happened. First, the supply function of non-concessional financing has shifted to the point where new disbursements of such loans are a tiny fraction of their former levels, and only a few African countries have access to significant volumes of such loans. Second, bilateral providers of concessional loans have stepped in to at least partly replace the diminished availability of non-concessional funds with conversions (debt to grants), reschedulings and cancellations of the obligations on such loans, as well as with initiatives such as the 1988 Special Programme of Assistance intended to ease the burden of non-concessional loans.¹²

For the low-income countries of Africa, if we put these concessional and non-concessional elements of the supply curve together, we would find that, up to a certain limit of funding, the effective supply curve is relatively flat and located at a relatively low real interest rate dominated by the concessional terms currently on offer. However, there are clear limits to the extent to which such financing can be expected to be available to finance deficits in the short term, and major uncertainties about the magnitude of such funding in the longer term: at some point the supply curve will presumably switch non-continuously to a much higher position.¹³ Moreover, the highly indebted middle-income countries of Africa do not have access to special programmes of concessional finance and, in this regard, are more immediately limited in the extent to which they can rely for deficit financing on external funds (see Research Issue No. 10).

However, limits on external borrowing also emanate from the behaviour of domestic economic agents in a number of ways. Fry (1988), for example, has pointed out that, even in advance of any debt crisis emerging, some version of the Ricardian equivalence theory may well apply in developing countries. This could arise, for example, if enlarged external debt generates expectations of higher future taxation to service debt, but instead of this resulting in enhanced domestic saving (as it does in a closed-economy model), it encourages instead a transfer of wealth abroad. Similarly, the same enlarged debt burden might generate expectations of a devaluation to boost exports, and this also might encourage capital flight. In short, while moderate levels of external borrowing might well stimulate domestic investment, pushing that borrowing too far might well result—even in advance of a real debt crisis—in new capital inflows being matched by enlarged private-capital outflows (see Research Issue No. 11).

Once the situation becomes critical, and there is a general acknowledgement that there is a large overhang of debt, the management of the domestic financial sector becomes extremely difficult, as the analysis of the Latin American experiences by Sachs (1986) and others makes abundantly clear. Such an overhang, for example, makes it more difficult to gain political support for economic austerity packages since any long-term economic gains from this are perceived to be more likely to benefit foreign creditors than domestic voters.¹⁴

Equally, the knowledge that the public sector has lost access to external funds is likely to provoke both capital flight and reduced productive investment as economic agents seek to escape what they perceive to be an inevitably penal

inflation tax, or very high conventional taxation of their income and wealth. The debt forgiveness presently observed in Africa is, therefore, justified not only on humanitarian grounds but also from the viewpoint of evading these undesirable incentives to capital flight and lower investment.¹⁵

In short, responsible policy makers are well advised to impose limits on their external borrowings, even where foreign suppliers of such funds are not themselves imposing such limits. However, the empirical question of what these limits should be is difficult to answer, and must in any case be answered in the light of the specific circumstances of different countries. A failure to observe such limits will eventually complicate rather than ease the task of public sector financing.

Inflationary financing versus involuntary lending

The argument so far has suggested that governments are seriously limited in the size of the deficits which can be financed using either inflationary methods or external borrowing. A question which naturally follows from this is whether the third main method of financing, namely involuntary domestic borrowing, offers an independent alternative to the first two methods or merely generates the same problems which characterize these. In basic textbook models of the money supply, it is a standard result that one major form of involuntary lending to the government, namely reserve requirements on the banks, can be increased so as to reduce the monetary and thus inflationary impulse associated with any given volume of high-powered money. Thus, in the simplest formulation of the money multiplier, we have:

$$(6) \quad MS = (1 + a)/(r + a).B$$

where r = the ratio of banks' deposit liabilities held in the form of cash, a = the cash:deposit ratio of the public, and B = the stock of high-powered (base) money. Thus, for a given value of B , a higher reserve requirement means a lower money stock and some downward pressure on prices.

Unfortunately, this favourable relationship between reserve requirements and inflation takes no account at all of the tax effect of devices such as reserve requirements on the banks and so on the evolution of the tax base. More recent literature has given explicit attention to this matter and has come up with radically different results. In an early model by Mathieson and McKinnon (1981), for example, it is assumed that the government has only two sources of finance for its deficits, namely the inflation tax and a tax such as reserve requirements imposed on the domestic banking system. It is further assumed that the seignorage associated with the expansion of the supply of currency and demand deposits is fully available to finance the government, while a proportional reserve requirement on time deposits is also available for this purpose. Then, using the simple three-equation model set out below, the trade-off between inflation and the use of the

reserve-requirements tax is as defined in Figure 1, which also shows the situation for two possible levels of the government's deficit.

$$(7) \quad h(\pi, i_l) = (1 - k) \cdot q(\pi, i_d)$$

$$(8) \quad Z/P = [k q(\pi, i_d) + f(\pi, i_d)](\pi + y)$$

$$(9) \quad i_l(1 - k) - i_d = 0$$

where:

y = the rate of real output

π = the rate of inflation

k = reserve requirements against time deposits

Z = the government's total deficit

i_l = the nominal interest rate on bank loans

i_d = the nominal interest rate on bank deposits

h = the demand function for bank loans

q = the demand function for time deposits

f = the demand function for currency.

Essentially, what happens in this model is that an increase in the reserve-requirements tax from zero initially enables a given government deficit to be financed using less money creation (inflationary finance), and so inflation falls. However, as k rises further, the margin between deposit and lending interest rates which the banks need to charge to meet a zero profit, or any other profit target, also rises (equation 8). This causes the public to move up their loan-demand curve for bank loans in response to the higher cost (the left-hand side of equation (6)). In short, as the tax rate k on bank deposits is raised, the base to which that tax is applied will shrink. Beyond some critical value of k^* , further rises in k will be self-defeating in so far as efforts to raise more government revenue are concerned. Beyond that point, a higher k will merely raise inflation for any given government deficit, contrary to the result coming from simple monetary analysis. In relation to the feasible methods of its possible financing, there is again a clear limit on the magnitude of the deficit which is sustainable (see Research Issue No. 12).

Somewhat more sophisticated versions of the same line of analysis are presented in papers by both Fry (1988), and in Courakis (1988), and elsewhere. Fry's numerical model, which was briefly referred to in Section I above, is as follows:

$$(10) \quad i_l = 1.05 - 10 \cdot (i_d - \pi)$$

$$(11) \quad DD = 1 - 4(i_T)$$

$$(12) \quad TD = 10.(i_T) - 6(\pi)$$

$$(13) \quad i_T = (1 - k).i_f$$

$$(14) \quad LL = 0.75.(DD) = (1 - k).(TD)$$

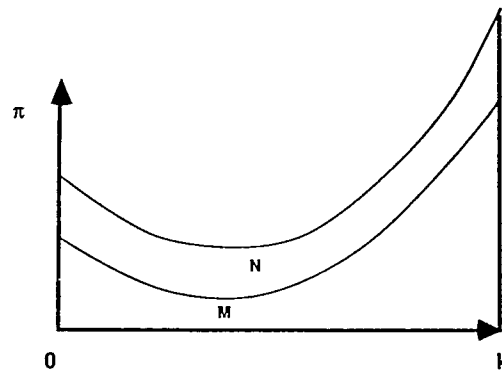


Figure 1 Reserve requirements and their effect on inflation

As was also noted in Section I, if a government is concerned about inflation, then an economy having the parameters of this model can finance a deficit as high as 7.7 percent of GNP with an inflation rate of 46 percent. However, if inflation is required to be kept down to, say, 20 percent, then with seignorage and the rate of reserve requirements both set at 25 percent, it is still possible to achieve deficit financing equivalent to 5.7 percent of GNP. Fry also demonstrates two further propositions of major policy relevance. First, differential rates of tax on the two components of the money stock have the potential to slightly raise the magnitude of the deficit which can be financed for a given rate of inflation.¹⁶ Second, the establishment of a binding administrative limit on loan interest rates will *reduce* the financeable deficit for any given rate of inflation because it will prevent the banks passing through the interest-rate consequences of any given rate of reserve requirements even to those borrowers who are able and willing to pay higher rates. His model suggests that financing equivalent to 1–2 percent of GNP could be lost by restrictions on interest rates when required reserves are set between 25 and 30 percent of deposits (see Research Issue No.13).

The two-category financing model (inflation and reserve requirements) discussed here can be used in a casual way to develop some further propositions about the impact of the external financing of deficits. One such proposition is that external financing available directly to the government will shift down the inflation:reserve-requirement trade-off shown in Figure 1 because there is now a smaller “residual” deficit to be financed using the two domestic sources of funding. However, this result itself is clearly subject to the limits on external borrowing elaborated in the previous sub-section. A second proposition is that external

financing available directly to the private sector might well raise the trade-off shown in Figure 1. This would happen if the greater availability of external funds caused a substitution and downward shift in the domestic demand for bank credit. In this case, the associated contraction of the domestic banking sector would reduce the base of the reserve requirements tax and so necessitate a higher rate of inflation for any given government deficit.

The central proposition from this sub-section is that there is, indeed, a limit on the size of government deficits which can be financed using the involuntary forms of borrowing discussed earlier. However, quite substantial proportions of GNP can be extracted in this way if governments are prepared to accept medium to high rates of inflation of 20 percent. Additionally, the technical management of interest-rate policies has a significant bearing on the revenues which are possible.

Inflationary financing versus external borrowing

In this final sub-section, we repeat the analysis just undertaken, but now on the basis that the two available forms of finance are external borrowing and the inflation tax. This case has recently been analysed by Corden (1988).¹⁷ He notes that for a given public deficit, a reduced balance of payments current account deficit will imply reduced external borrowing and so will necessitate a higher revenue from the inflation tax, implying higher inflation, to balance the government's books.¹⁸ If this is *not* possible, then reduced government expenditure or higher taxes are required, but this will increase unemployment unless matched by other policies such as a real devaluation. Similarly, if there is a reduction in the rate of inflation, there will need to be an expansion of foreign borrowing and a worsened current account if again the existing government deficit is to be financed. In short, in the type of adjustment situation in which most African countries now find themselves, the two common targets of adjustment, namely reduced inflation and an improved current account, are in conflict *if* it is also necessary to retain the same level of the government's own deficit. If it is accepted that there are just the two forms of financing for the deficit, this amounts to a simple but powerful argument as to why fiscal deficits ought to be reduced as part of an adjustment programme.

One particular problem arising from this line of analysis is the so-called "inflation-tax replacement problem" which is beginning to attract rigorous applied analysis but which has not been much explored in the African context. The basic proposition is that if fiscal deficits are a main cause of monetary expansion, and monetary expansion is a main cause of inflation, then a successful battle against inflation implies the need to *replace* the inflation tax revenues available to government in one way or another. This can be done either by raising higher revenues from conventional taxation, reducing government expenditures or, as already noted, expanding external borrowing and accepting enlarged current-account deficits. An important research question is the magnitude of the

replacement which is necessary for any given target rate of reduction of inflation. Results from a study on Turkey by Van Wijnbergen (1988), suggest that they would be large. According to his results, a reduction of inflation from 50 percent to 15 percent would reduce the revenues from monetization by 1.2 percentage points of GNP. This would not necessarily have to be found from enlarged external borrowing, but if it were, the necessary deterioration in the current account would be substantial (i.e. over 50 percent of the present level of non-interest deficits of most developing countries) (see Research Issue No. 14). On the other hand, the evidence from the Tanzi (1988) paper referred to earlier, suggests that inflation reduction will of itself have a favourable effect on revenues from conventional taxation.

Accepting that there is a trade-off between inflation and external deficits, how is the situation affected by the third category of financing? For our present purposes it is assumed that this has a significant borrowing element and is not, as assumed in the previous sub-section, a pure tax. In brief, if there is initially internal balance, an enlarged use of government domestic borrowing to finance enlarged expenditures will raise the domestic interest rate and will therefore crowd out some private investment in the first instance. If it were assumed that there was no external borrowing, then no change in the current account is possible and all the expenditure must be diverted to home goods. The real exchange rate will appreciate in response to the associated excess demand for home goods. The result, in other words, is crowding out and higher domestic prices. But, if external borrowing is allowed, this is likely to increase somewhat in response to higher domestic interest rates; the real exchange rate can, therefore, appreciate and help to contribute to an enlarged current account deficit. Furthermore, the higher domestic prices, reduced real money balances and higher real interest rates which arise when external borrowing is precluded are now avoided. In short, the more an economy is integrated with the international capital markets, the less will be the domestic-price-raising, crowding-out and interest-raising effects of an enlarged government deficit. In a highly integrated economy, the domestic interest rate will not be able to change very much and the particular type of domestic financing used by the government will not have much bearing on outcomes.¹⁹

IV. Domestic financial crises and debt management

A seriously under-researched aspect of the fiscal and public debt management problem in Africa is that associated with *internal* financial crisis. In brief, many of the same factors (deteriorating terms of trade, high interest rates, ill-conceived investment projects) which have generated the *external* debt crisis in Africa have also substantially worsened the financial situations of thousands of productive enterprises in both the private and public sectors. Given that a large proportion of such enterprises are debtors to the domestic banks of their countries, the financial health of a major part of the banking systems in Africa has itself been rendered extremely frail. For developing countries as a whole, research by Long (1987) has suggested that the number of banks and financial institutions that are now insolvent is without precedent in the last 50 years. Furthermore, the true magnitude of this problem is extremely hard to define in any country without access to a considerable amount of inside information. Long has suggested, as a rule of thumb, that the true level of non-performing loans may be as much as eight times the level actually shown in published balance-sheets (see Research Issue No. 15).

The overhang of large internal debts and insolvent banks necessarily generates enormous distortions and problems for economic efficiency as the optimizing modes of behaviour which are broadly characteristic of sound financial systems are replaced by sub-optimal survival modes of behaviour, both in banks and in productive-sector enterprises. While in many cases this overhang will quickly show up as an intensification of the government's own financing problem, this need not happen in all cases. There are several possibilities here which can best be explained by thinking of a set of representative productive enterprises which have invested in non-viable investment projects using funds borrowed in part from domestic banks. They are now unable to pay either the interest or the principle on the loans.

If the enterprises in question are publicly owned, it is improbable, given past experiences in Africa and elsewhere, that many of them would be liquidated in order to pay off their debts: the political and economic difficulties normally preclude this except in the case of the smaller enterprises.²⁰ Thus the accumulated unpaid debts of these enterprises will remain partly as claims on the domestic banking system. Since such debts can reasonably be regarded as contingent liabilities of the government, given the public ownership of the enterprises, they involve future budgetary and fiscal implications which are potentially

extremely large in many countries. This is true irrespective of whether government formally assumes public-enterprise debts, as it is doing, or continues to allow these to exist by resort to a variety of *ad hoc* interventions. In those cases where the bad debts exceed the capital of the banks, the financial system may, nonetheless, stagger along for several years sustained either by misleading accounting practice²¹ or by various forms of *ad hoc* support to the banks by the government. These commonly include the guaranteeing of some of the loans and the provision of central banks' rediscounting facilities on favourable terms. This latter category of intervention can clearly disturb the monetary policy objectives of a government and give rise to inflationary and public financing requirements considerably in excess of anything required by *current* levels of budgetary deficits narrowly defined. It has been widely argued to be associated with the loss of monetary control in a number of Latin American economies in the early 1980s.²²

If the enterprises in question are mainly privately owned, the situation is one stage removed from the responsibility of the budgetary authorities and does not show up so directly as a problem for public finance. However, if the problem of bad debts is pervasive, many of the same arguments which pressure governments to protect lame-duck public enterprises, will apply with equal force to private enterprises. This is most likely to happen through the provision of public guarantees of private-sector debts. As such guarantees become large, the magnitude of the future claim on the fiscal finances of the government grows too (see Research Issue No. 16).

In both these cases, the failure or inability of governments to deal conclusively with the bankruptcy of productive enterprises will leave a legacy of unsound banking systems and large incipient financing demands on the public finances which, while they remain unmet, will be likely to seriously colour the monetary policy performance of the government as well as the efficiency of the banking system. In general, and given the arguments of Section III above, governments will be forced to resort to greater use of inflationary financing than would be required in the absence of the overhang of bad debts.

Additionally to this problem of the *stock* of bad debts, there will also be public finance implications associated with the *flow* of new operating losses from the affected enterprises. Such further losses will be likely if the investments/activities/conditions which caused the debt overhang in the first place continue to exist without any serious effort to restructure the companies involved or amend the offending policy and other conditions. Depending on the stance of government policies, these losses may show up in the macro economy in several different ways. They may, for example, appear transparently in the government budget if direct subsidies and other transfers are paid from the government to, for example, loss-making public enterprises. Alternatively, they may show up as increased non-performing loans in the banking system if the banks attempt to protect their own capital by providing more loan facilities to their larger failing clients. Finally, it may show up as enhanced monetary expansion either because the enlarged fiscal deficit requires enhanced monetary financing

or, more directly, where increased central bank rediscounts are used to further support the ailing banks. What makes this such an awkward topic for empirical research is that the same basic circumstances in two countries may result in two or more quite different macro outcomes, at least in the short term, because of different approaches which the two governments may make in suppressing or facing the problem. Furthermore, the transparent appearance of the problem in published government budgets is the least likely outcome since governments in almost all continents manifest a strong tendency to obfuscate rather than reveal in this particular area. Nonetheless, it is a matter which warrants far more research resources in the African context than it has so far been accorded.

Further consequences

A further and related topic for research relates to the behaviour of African banking systems, which although mildly to seriously financially impaired by the level of bad debts in their balance sheets will, nonetheless, if past experience is any guide, continue to function.²³ Experiences in other parts of the world have suggested that such banks can easily get locked into a process of supporting failed clients in order to avert their own bankruptcy. This approach is likely to be self-perpetuating since borrowers in the productive sector that are themselves close to insolvency (i.e. zero equity) have nothing to lose by increasing their borrowing, however high the cost. Equally, the managements of banks which are close to insolvency, have a high propensity to behave in a reckless fashion. While this is happening, viable firms may be crowded out from access to funds in a variety of ways. They may, for example, delay their own investment plans because of an inadequate availability or the excessive cost of credit funds. Thus the phenomena of "adverse risk selection" may turn the financial crisis into an investment crisis, which in turn will slow the economic growth of the economy and hamper the recovery prospects of some at least of the distressed productive enterprises. The situation is made more intense if there are strong expectations that, in time, governments will bail out major debtors in both the financial and productive sectors. In this case, both enterprises and banks are encouraged to worry even less about excessive borrowing and lending, respectively (see Research Issue No. 17).

The factor which unifies this issue with the more conventional public finance issues discussed in Section III, is the analytical similarity between a government-imposed reserve requirement on the banks, and a worse overhang of public- or private-sector debt than is otherwise necessary. For a given public sector deficit (narrow or broad), both are likely to involve a higher rate of inflation than would otherwise be necessary because the "bad-debts tax" will itself reduce the base of the tax to which reserve requirements can be applied. Thus public finance problems arise irrespective of whether the overhang of internal bad debts is directly resulting in fiscal problems or not (see Research Issue No. 18).

Solutions

Although it is not the proper subject matter of this present paper, it is pertinent to note that a useful literature on possible escape routes from situations of internal financial distress is beginning to emerge. This is much influenced by the case-study materials from Chile and Malaysia which are generally acknowledged as successful in the field (de Juan, 1988; Shen, 1988; Hinds, 1988; Roe and Popiel, 1988; Roe 1988). However, the case studies certainly support conceptualization and taxonomies of the situation which are likely to have relevance in the African context as well (see Research Issue No. 19).

V. Fiscal policy and adjustment

It is an underlying theme of this paper so far that the normal targets of adjustment programmes, namely reduced external deficits/debt and lower inflation, require serious moderation in budgetary deficits if they are to be achieved. This is not because of any dogmatic view of the merits of private- versus public-sector activity, or because of a necessarily critical stance towards particular categories of government expenditure. It stems merely from the real difficulties of financing large public deficits in economies with thin capital markets and low domestic saving. But there is another and complicating aspect to the question of fiscal policies and adjustment. This is that many of the policy instruments of adjustment programmes which are necessary to achieve one or more of the objectives of the programmes also feed back adversely on the size of the public deficit which needs to be financed.²⁴ An obvious example is the conflict between the lower import tariffs possibly required as part of a trade reform, and the level of total import duty revenues. However, in the context of a discussion of debt management two main policy instruments, namely the exchange rate and nominal interest rates, pose particular problems, and hence it is these two instruments which are singled out for attention in this present section of the paper.

Devaluation

There are several interrelated ways in which a nominal or real exchange rate devaluation may impinge on the fiscal problems of a government, but three, in particular, can be emphasized. First, devaluation by raising the relative prices of tradeable to non-tradeable goods will change the government's budgetary situation adversely or favourably to the extent that the government is a buyer or seller of tradeable goods. The point which is most commonly emphasized in this context is that the government is often a substantial importer of tradeable goods and so will be required to find a higher level of local currency expenditures after a devaluation than before. In countries such as Ghana, Sudan and Uganda where circumstances and policies have generated a progressive strangulation of import availability over the years, imports by the government have come to represent a large proportion of total imports. Thus, the government will bear the largest part of the enhanced direct cost of imports and the fiscal burden of devaluation may be high. But of comparable importance for many African governments is the question of the expenditures associated with external del

service. As Corden (1988) notes, external debt service is analytically equivalent to a tradeable good and so a nominal devaluation will have the same negative effect on the budgetary position through enhanced interest payments as through the enhanced cost of imports. The political economy of the situation is such that governments which have monopolized a substantial part of imports in their own hands, and have been directly responsible for a major part of their countries' external borrowing, will find it harder to accept a nominal devaluation than governments of more liberal persuasion (see Research Issue No. 20).²⁵

Second, an overvalued exchange rate is often applied in such a way as to represent an important part of the tax-raising apparatus of the governments. For example, the use of import tariffs and quotas as an alternative foreign exchange equilibrating device to a realistic exchange rate, has the effect of raising home-goods prices and the prices of importables relative to the prices of exportables. A government can extract revenue from these price distortions either directly as, for example, when it extracts import duty revenues or indirectly when, for example, it purchases the higher priced home goods using the local currency equivalent of revenues from exports which it passes on to producers only at the overvalued (i.e. less favourable) rate. This latter point becomes more transparent when an explicit dual exchange rate unfavourable to primary-commodity exporters is applied as, for example, in recent years in Uganda (coffee) and Sudan (cotton). Since a devaluation, and especially one which unifies an otherwise multiple exchange rate, will remove these price distortions it will also reduce the tax revenues which depend on such distortions. However, this is not a good reason for rejecting the use of devaluation. If it is only relative prices which are changing, it is clearly possible to conceive of a revised structure of taxes which leaves total revenues unchanged. For example, if the price-raising effects of import protection have come mainly from quotas rather than from tariffs, then devaluation, the retention of *ad valorem* tariffs and the scrapping of quotas, may well raise import duty revenues. Similarly, if the local currency earnings of exporters are raised by devaluation, the government may well be able to replace a part of the revenues it extracted directly by new arrangements for the export, or income taxation of exporters. This is in addition to any longer term revenue gains associated with a more efficient use of resources and faster growth.

The third point is probably the most important in some of the more obviously repressed economies of Africa, such as Ghana, Sudan, and Uganda. This is that the distortions associated with excessive protection of imports and the excessive taxation of exports are demonstrably capable of reducing tax bases by driving into parallel/illegal markets both importing activity and exporting activity. The very high proportions of Ghanaian cocoa smuggled into the Côte d'Ivoire, the large volumes of Ugandan coffee similarly smuggled, and the estimates that more than half of Sudan's imports are smuggled into the country, are major examples of this general proposition. One of the next most important functions of a devaluation, and other measures to end obvious price distortions, may well be to bring more of these parallel market activities back into the official channels. To the extent that this does occur, government revenues are directly and

immediately enhanced as official and taxable export and import trade replaces the smuggled and untaxable trade. The Ghanaian recovery programme instituted in 1983 is a good example of this proposition since, under the tutelage of an active exchange rate policy, it saw the government revenue share of GDP rise from a miserly 5 percent to a level in excess of 12 percent in just two or three years.

In short, the fiscal consequences of devaluation are complex and difficult to assess quantitatively. While it is easy to point to the direct expenditure-raising factors (i.e. point 1 above), these are the short-term and static consequences and do not represent a sufficient basis to reject a devaluation, especially where the pre-existing situation is clearly one of chronic overvaluation. Almost all African countries would benefit from careful quantitative research into the fiscal consequences of the distortions associated with overvaluation and related policies (see Research Issue No. 21). Such research could help identify the possible directions of the tax reforms needed to sustain revenues in the face of the unwinding of the distortions. This is a technically very demanding task, but one which has rarely been looked at as a topic for serious quantitative research.

The final point to note is that adjustment is essentially a process of bringing expenditures into line with production so as to generate a sustainable external payments situation. The pressures which devaluation imposes on a government are clearly in the direction of forcing a reduction, either of the government's own expenditures or, to the extent that higher costs are passed through, the reduction is imposed on the expenditures of companies or households in the private sector. In this context, the rejection of devaluation can often be regarded more as a statement of the political unwillingness to accept these inevitable expenditure cuts, than as a statement about the technical unsuitability of the instrument.²⁶

Interest-rate policy

African financial policies have more often than not been characterized by interest rates administered at a low nominal level, which has often meant highly negative real interest rates for substantial periods.²⁷ The consequences, especially for the mobilization of saving through formal financial institutions and the effective allocation of saving to efficient investment projects, are well established in the literature on financial repression associated with Shaw (1973), McKinnon (1973), Galbis (1976 and 1977) and many others. This phenomenon of financial repression and low interest rates is directly associated with budgetary policy in that, because government deficits in most African countries are a major user of private savings, governments have a strong vested interest in keeping interest rates low and in capturing access to private savings in the low-cost ways described in Section II above (see Research Issue No. 22). However, the dangers associated with this are increasingly well understood and at least some token recognition of the need for financial-sector liberalization has been

included in most African adjustment programmes in recent times. This opens up numerous issues for research, and not least about the consequences of moving from a tight control of interest rates to something close to fully liberated rates while other markets in the economy are still operating in a non-equilibrium manner.²⁸ Irrespective of the longer term merits of a freer system, there are several good reasons why caution in this area is advised and why certain pre-conditions are necessary if the policy is to be successful. Some of these relate to the interaction between higher interest rates and government deficits.

We can begin by recalling some of the propositions elaborated earlier in the paper. First, when government deficits are large, i.e. 4 or 5 percent of GDP or above, economic agents will normally correctly anticipate that inflationary methods will have to be mobilized to finance a substantial part of those deficits. In this situation, "free" interest rates will imply extremely high nominal levels of these rates, including a large premium for expected inflation, if the public are to be persuaded to voluntarily supply enough of their savings to fully meet the government's requirements. With deficits at a level equivalent to the African average of 8 percent of GDP, it is unlikely, using Fry's model, that nominal interest rates could be kept much below 50 percent, for example. As well as radically worsening the financial situation of the insolvent and highly leveraged companies discussed in Section IV, high nominal interest rates would damage otherwise financially sound companies whose output price indexes happened to be moving upward, at least temporarily, at a slower rate than the rate of interest.²⁹ Thus government deficits in their broad sense would be enhanced, both directly as interest costs rose and indirectly as increased levels of the various supports to productive enterprises elaborated in Section IV became necessary. The only tenable conclusion in this context is that the underlying level of government deficits would need to be reduced quite radically from the present average levels in Africa before any serious liberalization of interest rates would be possible (see Research Issue No. 23).

Second, in the models which emphasize government financing from the inflation tax, and from reserve requirements on the banks, it is evident that a larger deficit can be financed for a given rate of inflation if the banks are not restricted as to the interest rates they can charge on loans. However, in the light of the discussion of the previous paragraph and the possible existence of large numbers of highly leveraged enterprises, this certainly cannot be construed as an argument for a virtually unconstrained removal of controls on interest rates.

Third, it is extremely easy, as recent experiences in Latin America amply testify, for inappropriate financial policies to give rise simultaneously to enlarged governmental borrowing from abroad at the same time as private savers are moving funds out of the country. There is no simple connection between interest differentials and capital flight, but it is clear that if other policies are sound, "realistic" levels of domestic interest rates can operate to discourage outward capital movements. Thus, although higher interest rates on its own domestic debt may directly increase the deficit the government has to manage, the financing of that enlarged deficit may be easier if higher interest rates discourage

capital flight and so make a larger part of domestic savings available for domestic financing. The two complementary policies, above all others, which need to be managed soundly for this proposition to be valid are exchange-rate policy and general fiscal policy. If the fiscal deficit is very large, then the expectations of higher inflation and/or higher future taxation and/or large devaluations (if external borrowing is used for deficit financing), will all represent pressures for large capital outflows, and extremely high nominal interest rates will be needed to offset these pressures. Similarly, if the real exchange rate is seen to be seriously overvalued, very high nominal interest rates will be needed to compensate for high rates of expected future devaluation.³⁰

A factor unifying our brief discussion of exchange-rate and interest-rate policies is that, in addition to their textbook effects, these policies can both generate rapid advantages for public finances and so provide a substantial contribution to the possible short-term success of an adjustment programme. In the case of the exchange rate, the benefits can come in the form of the enlarged revenues associated with the diversion of underground export and import activities into the official channels. In the case of interest rates, the benefits can come through a discouragement of capital flight, and so to the possibility of financing a given deficit at a lower inflation rate and with lower taxes on the financial system. Unfortunately, in both these cases, there are direct costs in the form of enlarged public expenditures to offset against these benefits, and it is not possible in general terms to say where the balance of advantage will lie. However, given the importance of the matter for practical policy formulation, it certainly justifies more in-depth applied research.

IV. Approaches to stimulating domestic saving and the broadening of capital markets

It is common ground that many of the problems and trade-offs involved in deficit finance and discussed in the previous section would be easier if governments could rely on larger volumes of domestic saving and, in particular, had access to large voluntary supplies of financing through domestic capital-market instruments. But capital-market development, even in middle-income developing countries, is extremely limited and there are few countries in Africa which could aspire to finance a deficit equivalent to even 1 percent of GDP through the sales of government securities on a voluntary basis. Nonetheless, domestic capital-market development, and other steps to boost domestic saving, ought to be included in the agenda of financial reform programmes and this section identifies some of the problems and research issues which this element of reform would probably require.

The first and most important point to make is that deep and active capital markets are unlikely to emerge in countries characterized by high levels of macroeconomic and, possibly also, political instability. Financial systems can potentially offer some security against certain categories of uncertainty but are unlikely to function well when, for example, the inflation rate is high and volatile. This is guaranteed to establish strong biases in favour of short-term debt instruments, both on the part of lenders (savers) and borrowers (investors), and so will curtail the spectrum of maturity choices, and maturity transformations, which are features of well-developed capital markets. In short, financial stabilization is a necessary prior step to the development of capital markets: the latter taken on its own cannot really make any serious contribution to the former.

Similarly, controlled interest rates which routinely maintain the returns on the main financial instruments of an economy below the expected rate of inflation will be an incentive to borrowing/dissaving rather than lending/saving. If the instruments in question operate, as in many African countries, to transfer resources to government at the lowest possible cost, then would-be holders of such instruments will be deterred by the unrealistic returns and the government will be forced back on the various devices of compulsory financing which we discussed earlier. In short, high inflation, as well as interest rates which completely

fail to reflect that inflation, are certain recipes for the emergence of financial sectors which are thin and biased towards the shorter maturities. But, as we have noted in Sections II and III of this paper, these are two almost inevitable features of economies which operate with high budgetary deficits, unless, of course, these deficits can be reliably and cheaply financed from external sources. In such economies, it is redundant to suggest that tax incentives and other measures can be put in place to help foster the development of securities and capital markets so as to give the government access to enlarged domestic savings on a more voluntary basis. Indeed, without a *prior* reduction in deficits—probably to levels of 5 percent of GDP or below—it is unlikely that the returns on capital market instruments in nominal and real terms could be made sufficiently attractive to encourage a serious boost to domestic savings³¹ and to the diversification of portfolios.

However, if these basic pre-conditions, namely reasonable economic stability and low inflation, could be established, then there are a variety of issues which could be addressed in order to promote a more diversified financial sector. Since several of these would lend themselves to lengthy discussion, we confine ourselves here to a simple listing of some of the more important of the issues.

Factors conditioning the supply of securities

It will normally be the case that the government itself may be able to issue a plentiful supply of paper, but the creation of a supply of bonds, and possibly equities as well, is often inhibited by:

- (a) A predominance in many African countries of very small corporate sectors;
- (b) A heavy dominance within the corporate sector of public enterprises used to borrowing directly from government;
- (c) Within private corporate sectors, a predominance of family-owned businesses unhappy, possibly, about the greater disclosure and scrutiny associated with public issues rather than in-family borrowing and lending;
- (d) The high costs of issuing and trading in securities arising from thin markets and unsophisticated techniques;
- (e) Fiscal disincentives for the issue of securities relative, for example, to borrowing from the banking system;³²
- (f) The absence of any positive incentives for companies going public.

Of these various difficulties, the ones that are most easily corrected are those concerned with the fiscal disincentives against, and incentives for, the greater supply of capital-market instruments. The other problems are major and not easily put right by marginal changes in public policy.

Factors conditioning the demand for securities

There are numerous difficulties in persuading private savers, as well as institutions, in relatively unsophisticated financial markets to move heavily into securities investments. The problems include:

- (a) A legitimate lack of confidence on the part of investors in both the marketability of the instruments and their ability to preserve their initial capital values;
- (b) A lack of confidence about the issuing institutions, be they governmental organizations or private companies, based either on lack of experience or previous examples of unreliability;
- (c) A lack of confidence based on the inadequacy of accounting, reporting and auditing standards in the issuing companies;
- (d) A concern about the possibilities of market values being manipulated by a limited group of inside traders;
- (e) Tax arrangements which convert satisfactory and competitive gross returns on private-sector securities into returns which completely fail to be competitive on a net basis.

Most of these problems can only be resolved through a long-term and committed programme to put in place the full range of institutions, including the regulatory, accounting and other standards which can build the confidence of the investing public in securities investment. Again, however, the tax arrangements referred to in the last point can be put to rights relatively quickly if there is a real will to do so. The major dilemma here is, again, one which concerns public finances. The tax treatment of security investment, if it is discriminatory at all, will normally discriminate in favour of public over private issues. Thus the ending of this discrimination in the interests of constructing a broader financial system will normally involve more expensive financing of the government's own deficit before it helps to achieve an easier and sounder financing of that deficit.

Appendix

Financing requirements of selected African countries

Data sources: International Monetary Fund, *Government Financial Statistics, 1987 Yearbook* and *International Financial Statistics*, various issues.

Actual figures are presented in Tables A-1 to A-13. Deficit trends are graphically shown in Figure A.¹

All figures relate to central government finances. Percentage figures for revenue (total revenue plus grants), expenditure (total expenditure plus lending less repayments), and total financing requirements are proportions of respective nominal GDP to give an indication of the relative size of government and deficits. Financing flows are all "net" taking into account new flows, interest payments and amortization.

Botswana (see Table A-1)

Of the 13 countries studied in this Appendix, Botswana's government sector is undoubtedly the largest in terms of total revenue and expenditure as a percentage of nominal GDP. Botswana's deficit position would also appear to be at odds with the other African economies. Revenues as a percentage of GDP rose from 35% (pula 66 million) in 1974 to 48.9% (pula 388 million) by 1982. With expenditures rising as a percentage from 38% (pula 72 million) to a peak of 51.4% (pula 407 million) over the same period, financing requirements after standing at 3% (pula 5.7 million) in 1974 had declined, to leave a surplus amounting to 4% (pula 21.4 million) in 1979. Deficit financing was required again, however, from 1980 to 1982, by which time the requirement had reached 2.5% (pula 20.1 million). Subsequently, due to the strong rise in revenues, a large growing surplus was evident in the post-1982 period, reaching approximately 25% of GDP in 1985 and 1986.

The sharp rise in revenues has been mainly due to increases in the taxation on income and profits and non-tax revenue as a proportion of GDP. Meanwhile, general public expenditures, education, health, housing and social-security expenditures have grown relatively slowly. For example, while income tax revenues have increased from pula 15.6 million to pula 320.77 million between 1974 and 1985, expenditures on education, health and social security together have increased from pula 13.7 to only pula 163.6 million over the same period.

With a surplus over much of the period, deficit financing has clearly not been of importance in Botswana and therefore financing figures are not analysed here.

Ghana (see Table A-2)

Central government expenditure has been consistently greater than revenue throughout the 1974 to 1985 period, though the actual size of the government sector has been small relative to that of Botswana. For example, revenue as a percentage of GDP stood at 12.5% (cedi 584 million) in 1974. Expenditure of 16.7% (cedi 780 million) meanwhile necessitated a financing requirement of some 4.2% of GDP (cedi 196 million). However, by 1977 revenues had fallen to 10.5% whilst expenditure had risen to 20%, leading to an increased deficit amounting to 9.5% (cedi 1,057 million). Between 1977 and 1980, expenditure fell more relative to simultaneously declining revenue leading to a lower financing requirement of 4.2% (cedi 1,808 million) by 1980. In 1981 and 1982, expenditures remained static whilst revenue fell to a low of 4.5% (cedi 3,279 million) before rising to reach 5.6% (cedi 4,856 million) in 1982. Therefore, after rising to 6.5%, the financing requirement fell back to 5.6% (cedi 4,848 million) in 1982 and 1983 witnessed a sharp fall in the deficit as expenditures fell whilst revenues remained a stable proportion of GDP. Despite rising expenditures in 1984, further gains in revenue facilitated another fall in the deficit to 1.8% of GDP (cedi 4,843 million). Subsequently, due to faster expenditure growth, a widening of the deficit to 2.2% of GDP (cedi 7,579 million) occurred in 1985.

Given the persistence of fiscal deficits in Ghana, it is intuitive to consider how these financing requirements were met. External sources of finance were not utilized in 1974, 1977 or 1979. Indeed, in 1974 a net outflow of funds from the government to external sources of cedi 1.4 million was evident, representing interest payments and amortization of past debts.² Thus the requirement of cedi 196 million in 1974 was financed entirely by domestic sources, with the monetary authority meeting cedi 115.1 million (or 58.6% of the deficit).³ In 1977 a cedi 13 million external transfer (or rather purchase of government debt), contributed 1.2% towards the cedi 1,057 million requirement. Once again, the monetary authorities contributed the majority (61.7%) of the domestic financing necessary. This proportion had increased again in 1979 to 73.2% (cedi 1,318 million) or the cedi 1,800 million financing requirement. In 1980 there was, however, a sharp increase in external sources of finance to 16% (cedi 290 million) of the cedi 1,808 million requirement. The monetary authorities continued, however, to provide the largest source of funds at 61.7% of the deficit. This trend was temporarily reversed in 1981 as external purchases of government debt amounted to only 7.7% (cedi 376 million) of an increased cedi 4,707 million deficit. Again, funding of cedi 3,311 million from the monetary authority was by far the largest contribution (70.3%).

In absolute nominal terms, the deficit and external sources of finance remained virtually static in 1982. However, the monetary authority ceased to be the biggest domestic source of funds, supplying only cedi 1,673 million (34.5%), as that forthcoming from the non-financial private sector, in particular, increased temporarily to cedi 2,538 million which combined with other (non-deposit money banks) financial institutions, financed 56.7% (cedi 2,748 million). With financing requirements increasing to cedi 4,933 million in 1983,⁴ external sources were sharply higher at cedi 970 million (19.7%). Significantly, finance from the monetary authority declined further to only cedi 455 million (9.2%). The remaining finance was forthcoming from, once again, other financial institutions, and the non-financial private sector, which together met cedi 1,670 million (33.9%) of requirements. Funding from deposit money banks

became significant at cedi 1,700 million (34.5%).

External financing increased again in 1984 to cedi 1,815 million, supplying 37.5% of the cedi 4,843 million requirement. With financing from the deposit money banks, other financial institutions and the non-financial private sector combined decreased, financing from the monetary authority was necessarily higher at cedi 2,289 million (47%). An increased deficit of cedi 7,579 million in 1985 was financed in large part through an increased contribution from abroad of cedi 3,522 million (46.5%). Of domestic financing, that from the monetary authorities was lower at cedi 1,800 million (23.7%), with most of the remainder originating from other financial institutions (cedi 1,878 million or 24.8%). Data for 1986 were unavailable at the time of writing.

Kenya (see Table A-3)

Kenya has consistently run a deficit over the period with the size of the government sector lying somewhere between that of Botswana and Ghana. In 1974, revenues stood at 18.2% (Sh 3,696 million), whilst expenditure of 21.1% (Sh 4,283 million) led to a financing requirement of 2.9% (Sh 587 million). In 1977, revenues were lower in relative terms at 17.2% (Sh 6,383 million) causing the deficit to increase, despite a fall in the expenditure share to 3.6% (Sh 1,327 million). By 1979, however, both expenditures and revenues had increased to stand at 28.8% and 22.2%, respectively, thus requiring financing equivalent to some 6.6% of GDP (Sh 3,015 million). This deficit fluctuated around 6% up to 1982 (by which time it had reached Sh 4,462 million), with revenues and expenditures being close to 25% and 29%, respectively. However, a sharp fall in expenditures, combined with only slight fall in revenues, saw the deficit halved in percentage terms to 2.1% (Sh 1,597 million) in 1983. Subsequently, with revenue stagnant at around 20% of GDP, and expenditure rising to 28.2% (Sh 3,754 million), financing requirements had increased to 7.4% of GDP (Sh 9,841 million) in 1987.

In 1974, external sources of finance contributed Sh 209 million (35.9%) towards the total Sh 587 million requirement. Of this, international development institutions (IDI) and foreign governments were the most important, providing 16.4% and 10.1%, respectively. Other external sources funded the equivalent of 9.2% of total requirements.^{5,6} In 1977, external sources again provided approximately 35% of the increased Sh 1,327 million requirement. However, with an outflow of Sh 19 million to non-official sources, the contributions from the IDIs and foreign governments were higher at 16.9% and 19.4% of total requirements, respectively. Subsequently, 36.7% of the increased requirement of Sh 3,015 million in 1979 was financed externally, with that from IDIs substantially higher at Sh 656 million (21.8%), whilst the net contribution from non-official sources became positive and equivalent to 6.6% of requirements.

These non-official flows were significantly higher at Sh 728 million, financing 30.2% of a reduced Sh 2,409 million requirement in 1980. Though finance from both official sources declined in absolute terms, the total contribution to financing requirements made by external sources was considerably greater at 52.6%. Subsequently, with finance from non-official sources static in 1981, an increase in official funding led to an increase in total foreign financing to Sh 1,876 million. However, this only met 46.9% of the increased Sh 4,002 million requirement. Total external sources financed only 37.8% of requirements in 1982. However, of this, non-official financing was approximately double the previous year's in absolute terms, whilst net funding

from official sources was substantially reduced.

Net external contributions financed 47.6% of the reduced deficit in 1983. Underlying this, non-official funding fell to only Sh 290 million (7.5%), as IDI contributions increased substantially to Sh 1,095 million (28.5%). This trend was reversed in 1984 as non-official flows increased to Sh 1,181 million, contributing 76.3% of external finance, which in turn contributed the equivalent of 36.2% of the financing requirement. Finally, in 1985 external sources, though higher at Sh 1,842 million, financed only 29.5% of the total deficit, with approximately equal net contributions from IDIs, foreign governments and other (non-official) sources.

Malawi (see Table A-4)

Financing requirements in excess of 5% of GDP have consistently occurred in Malawi. In 1974 and 1977, revenue of 15.9% (kwacha 73.2 million and 17.2% (kwacha 126 million), respectively, and expenditure of 22.2% (kwacha 102 million) and 23.5% (kwacha 170 million) led to deficits of 6.3% (kwacha 29 million) and 6.2% (kwacha 45 million) of GDP. Though revenue had risen up to 1980, a more pronounced increase in expenditures to stand at 39.4% (kwacha 396 million) led to a financing requirement of 15.9% (kwacha 160 million). With revenues stagnating (at between 20 and 23%) at a time of declining expenditures, this requirement had fallen back to 5.2% (kwacha 88.3 million) by 1984. Continuing to 1986, although revenues have risen to 23.8% (kwacha 549 million), increasing expenditures led to another rise in the deficit to 8% (kwacha 163 million) in 1985 and 7% (kwacha 160.5 million) in 1986. This percentage level was maintained despite falling expenditures, as revenues also fell sharply to be significantly below 20% in 1987.⁷

Of the kwacha 29.2 million deficit in 1974, external sources accounted for some 64% of funding requirements. Of this, official sources (IDI kwacha 7.5 million and foreign governments kwacha 11.2 million) were the major contributors. Of domestic financing, monetary authorities supplied only kwacha 2.2 million (7.5%). With the deficit widening to kwacha 45.2 million in 1977, external sources contributed kwacha 41 million or 90.8% of funds. Again, the majority of this originated from official sources (77.3%). "Other" non-official external sources were higher at kwacha 7.2 million.

By 1979, with financing requirements of kwacha 75.5 million, financing from external sources was lower at kwacha 39.7 million (52.6%). Of the increased domestic financing the biggest source of funds was the deposit money banks which contributed kwacha 18 million (23.8%). With non-financial public enterprise providing kwacha 8.18 million (10.8%), the monetary authorities were required to fund kwacha 9.1 million (12.1%) of the deficit, and 1980's substantial increase in the deficit to kwacha 160.3 million was met by a similar proportion of external financing, reaching in fact kwacha 83.1 million (51.9%). However, of this, non-official flows had increased significantly to kwacha 44.8 million (27.9%) to become the largest source of external funding. Meanwhile, of the increased domestic financing necessary, kwacha 77.1 million (48.1%), the monetary authority supplied kwacha 43.8 million (27.3% of total requirements).

In 1981, the deficit fell to kwacha 137.7 million. However, external sources were substantially lower at only kwacha 33.67 (24.4%), as "other", non-official flows

became negligible. This necessitated domestic financing of kwacha 104.3 million, of which the bulk was provided by the monetary authority (kwacha 93.4 million or 67.8% of total requirements). Financing requirements fell further in 1982 to kwacha 95 million. Increased official external finance from IDI of kwacha 65.9 million financed 69.4% of the deficit. Indeed, net other external flows had become significantly negative.⁸ Of the required kwacha 32.5 million domestic financing, that from the monetary authority had declined substantially to kwacha 15.7 million, whilst that from deposit money banks had increased to kwacha 15.2 million.

The year 1983 witnessed a further increase in IDI flows. Indeed, at kwacha 112.1 million, they were greater than the financing requirement of kwacha 101.8 million. Outflows to foreign governments and others (of interest payments and amortization) on the external accounts, and to deposit money banks (kwacha 39.5 million, in fact) and other areas of general government on the internal accounts, necessitated kwacha 51.8 million of financing from the monetary authority. In 1984, with contributions of kwacha 39 million and kwacha 91.8 million, respectively, the monetary authorities and IDIs were the two main sources of funding for the reduced requirement of kwacha 88.3 million. With an outflow to other external sources of finance of kwacha 31.2 million total domestic financing necessarily increased to kwacha 32.2 million.

In 1985, despite an increased deficit of kwacha 162.6 million, external sources, or rather IDI, increased to only kwacha 101.6 million (62.5%). With a continued outflow of funds to foreign governments and other foreign contributors, the net external contribution was only kwacha 68.9 million, necessitating domestic funding of kwacha 93.7 million. With finance from other financial institutions significantly higher at kwacha 44.2 million from previously negligible levels, only kwacha 48 million (29.5%) of finance was required from the monetary authority.

Mauritius (see Table A-5)

Financing of equivalent to 5.7% of GDP (Rs 202 million) was required in 1974, with revenue standing at 13.1% (Rs 460 million) and expenditure at 18.8% (Rs 662 million). By 1977, however, the size of government had increased significantly with expenditure and revenue shares reaching 33% (Rs 1,630 million) and 23.7% (Rs 1,173 million), respectively. Financing requirements were also higher at 9.2% (Rs 456.8 million). By 1979, revenues had fallen back to 18.5%. However, with expenditure falling back to only 30.1%, the deficit increased further to 11.5% of GDP (Rs 882 million). Continuing to 1981, expenditure rose to be at 33% (Rs 3,366 million) again with revenues, after rising to 20.8% in 1980, falling to 20.3% in 1981, leading to another widening of the deficit to a peak 12.7% (Rs 1,293 million). After falling to 19.5% in 1982, revenue has been between 21 and 22% of GDP up to 1986. With expenditure falling, financing requirements had been cut to only 3.2% (Rs 640 million) in 1986. Subsequently, however, the deficit rose to 4.1% (Rs 939), due to a fall in revenue share as the expenditure share remained static.

In 1974, the deficit of Rs 202 million was financed mainly through a domestically sourced contribution of Rs 172.2 million (85.4%). Due to net flows from central government to other general government of Rs 37.7 million, and to deposit money banks of Rs 36.2 million, financing from the monetary authority of Rs 226.2 million was necessary. With funding of Rs 21.3 million from other domestic sources, external

financing accounted for the remaining Rs 29.5 million, of which the bulk of Rs 22.6 million came from foreign governments. The structure of financing was similar in 1977 with Rs 386.6 million of domestic funds providing 84.6% of the increased Rs 456.8 million requirement. Again, due to flows from government to other general government and deposit money banks, the monetary authority supplied Rs 479.3 million of funds, with "others" supplying Rs 114.7 million.⁹ Meanwhile, of external contributions, funding from international development institutions had increased to Rs 36.1 million and that from foreign governments to Rs 33.3 million.

With other foreign finance significantly higher at Rs 241.2 million (27.3%) from previously negligible amounts in 1979, total foreign funding increased to Rs 309.1 million (35%). With an overall requirement of Rs 882.2 million, domestic financing of Rs 573 million was necessary, the bulk of which was forthcoming from the monetary authority (Rs 398.1 million), though to a lesser degree than previously due to a combined contribution from other general government and deposit money banks of Rs 192.3 million (21.8% of total requirements). The actual deficit was virtually unchanged at Rs 896.6 million in 1980, with the monetary authority continuing to provide Rs 366.5 million (40.9%) of total requirements, whilst domestic sources combined to contribute Rs 679.4 million (75.8%). External sources fell to Rs 217.2 million (24.2%). Funding from IDI and foreign governments increased to Rs 134.3 million partially offsetting a sharp decline in other sources to Rs 84.2 million (only 9.4%).

External finance was significantly higher again in 1981 at Rs 707.2 million (54.7%), with official foreign government flows higher at Rs 236.2 million (18.3%), and, in particular, other sources substantially higher at Rs 387 million (29.9%). Domestically, a net transfer of funds of Rs 139 million was made to the deposit money banks, whilst the monetary authority contributed Rs 592.8 million (45.8%) towards funding. No significant change in financing arrangements occurred in 1982, although deposit money banks did make a positive contribution of Rs 123.8 million (8.9%), allowing that from the monetary authority to decline to Rs 470.2 million (33.9%). Subsequently, 1983 witnessed a significant change in financing structure as the deficit fell to Rs 1,160.1 million. Net external flows became negative as transfers were made to foreign governments of Rs 105.9 million and to other sources of Rs 195.2 million. The only positive contribution came from IDIs at Rs 125.1 million (10.8%). Of the necessary Rs 1,335.1 million domestic funding, the majority was derived from deposit money banks (Rs 626 million (54%)). That from other general government and other financial institutions increased allowing a further fall in the contribution required from the monetary authority to Rs 319.8 million (27.6%). With the deficit reducing further to Rs 857.2 million in 1984, negative net flows to other external sources were sharply higher at Rs 541.3 million. However, increased official flows, via IDI, of Rs 294.6 million and foreign governments of Rs 106.7 million partially offset this outflow. Of the necessary Rs 997.8 million domestic financing requirement, a flow to deposit money banks of Rs 18.5 million and decreased financing from other general government necessitated increased finance from the monetary authority of Rs 661.8 million (77.2%).

A substantial increase in external financing occurred in 1985, emanating from both official (Rs 545.6 million) and other sources (Rs 175.2 million). Combined external sources met 87.1% of the Rs 823.3 deficit. With other general government, deposit money bank and other domestic sources providing Rs 484.3 million of funds, flows to the monetary authority of Rs 352.1 million were possible. The year 1986 saw another

decline in the nominal deficit to Rs 640.2 million. With external flows becoming negative again (despite funding from foreign governments of Rs 155.3 million), due to net outflows to IDIs of Rs 37.1 million and to other sources of Rs 234.7 million, domestic financing became prevalent. However, with other general government providing Rs 326.6 million, deposit money banks Rs 652.3 million, and others Rs 196.6 million, further flows of Rs 379.5 million to the monetary authority were evident.

Morocco (see Table A-6)

After requiring financing equivalent of 4% of GDP (dirham 1,384 million) in 1974, Morocco has consistently run a deficit in excess of 6% in the years under study. Indeed, in 1977, with the revenue share static at approximately 25% (dirham 12,333 million) and expenditure rising to 40.2% (dirham 19,980 million) from 29.2% in 1974, the deficit had increased to 15.4% (dirham 7,647). With revenue static between 25 and 26% through the rest of the period except 1981 and 1982 (when it was slightly higher at 26.6 and 27.1%, respectively), fluctuations in financing requirements have been due mainly to trends in expenditures. Indeed, the deficit fell to approximately 10% in 1979 and 1980 in response to expenditure falling to 35.2%. The deficit subsequently increased in 1981 to 13.8% (dirham 10,557 million) as expenditure peaked at 40.4% (dirham 30,975 million). By 1984, expenditure had fallen to 31.9% (dirham 33,446 million) leading to a reduction in the deficit by more than half to 6.4% (dirham 6,762 million). In 1985, however, increasing expenditures have led to a widening of the deficit to 7.9% (dirham 9,424 million).

As regards financing of the deficit, Morocco appears to have been fortunate in being able to attract significant volumes of externally sourced finance, mostly from official sources. In 1974, domestic financing met dirham 1,163 million (86.3%) of the dirham 1,348 million requirement. With flows to other general government of dirham 333 million, domestic financing requirements were met by contributions of dirham 364 million from the monetary authorities, dirham 426 million from deposit money banks and dirham 691 million from other financial institutions and the non-financial private sector combined. By 1977 external financing had become the major source of funding (a position it held for all years except 1983 and 1985), meeting dirham 5,195 (67.8%) of the vastly increased dirham 7,647 million requirement. Of this, foreign governments were the main contributor, providing dirham 4,109 million, with other external sources providing dirham 871 million. Domestic financing of dirham 2,452 million was met mainly by the monetary authorities (dirham 1,418 million or 18.5% of total requirements), as contributions from the deposit money banks and other financial institutions fell, whilst funding from the non-financial private sector increased significantly to dirham 531 million.

There was a similar financing structure in 1979, though with other sources of external finance becoming more important, meeting dirham 1,609 million (26.6%) of the dirham 6,039 million requirements, as net flows from foreign governments fell. Of domestic finance, that provided by the monetary authorities was lower at dirham 715 million (11.8%), as contributions from other general government, deposit money banks and other financial institutions were significantly higher. Total external funding remained similar in 1980 at dirham 3,910 million (54.4%), though contributions from foreign governments increased with those from other external sources being

substantially lower at dirham 710 million. With increased requirements of dirham 7,184 million a greater need for domestic financing appeared to materialize. With funds from other general government, deposit money banks and other sources falling in aggregate from 1979, that from the monetary authority increased significantly to dirham 2,040 million (28.4%). A substantial widening of the deficit to dirham 10,557 million 1981 was met by increased external sources of dirham 7,116 million (67.4%), coming from increased foreign government and other foreign sources. With flows to other financial institutions and the non-financial private sector, domestic financing requirements of dirham 3,441 million were met by increased funding from deposit money banks and the monetary authority of dirham 1,319 million and dirham 2,469 million, respectively.

Despite increased net inflows from foreign governments of dirham 6,733 million in 1982, a net outflow of funds to other sources of dirham 517 million from an inflow of dirham 2,829 million the previous year, led to a fall in external finance to dirham 6,471 million (60.9%). With the deficit virtually unchanged at dirham 1,630 million, domestic finance necessarily increased. A substantial proportion, dirham 1,609 million (15.1%), came from the non-financial private sector, whilst the remainder came mainly from the monetary authorities (dirham 1,543 million) and deposit money banks (dirham 1,040 million). The year 1983 witnessed a reduced deficit of dirham 7,680 million. External financing approximately halved to dirham 3,290 million (42.8%), despite increased funding from IDI and other sources as foreign government flows fell sharply to dirham 2,394 million. Therefore, domestic requirements increased to dirham 4,390 million. With net flows to other financial institutions amounting to dirham 672 million, and the non-financial private sector dirham 2,372 million, both deposit money banks and monetary authority contributions were higher at dirham 3,382 million and dirham 3,321 million, respectively.

With further increases in IDI funding to dirham 1,581 million, and a recovery in foreign government flows to dirham 3,694 million, external sources covered 79% of the reduced dirham 6,762 million deficit in 1984. Continued significant flows to other financial institutions, the non-financial private sector, domestic financing, though reduced to dirham 1,443 million, necessitated funding of dirham 841 million and dirham 1,325 million from deposit money banks and the monetary authorities, respectively. The combination of reduced external funds (due mainly to lower flows from foreign governments) to dirham 4,506 million and an increased deficit of dirham 9,424 million led to an increase in domestic financing requirement to dirham 4,918 million (52.2%) in 1985. With dirham 4,444 million of this funded by deposit money banks and other domestic contributions totalling dirham 418 million, financing flows from the monetary authority of only dirham 52 million were necessary.

Sierra Leone (see Table A-7)

The size of the central government sector has fallen significantly over the period. In 1974 revenue stood at 19.2%. With expenditures standing at 23.6%, financing of 4.4% (Le 20.9 million) was required. By 1977, though expenditures had actually fallen to 22.9%, revenues fell to a greater extent to 16% thus necessitating the financing of a greater deficit equivalent to 6.9% of GDP (Le 51 million). Revenue had fallen further to 15.3% of GDP by 1980. With expenditure rising to approximately 27%, the deficit peaked at 11.5% (Le 148.2 million). From 1980 to 1983 the revenue share fell to only

6.3% (Le 170.6 million). Meanwhile, expenditure fell to a low of 16.2% (Le 441.8 million). Thus, after falling to 7.5% (Le 120.7 million) in 1981, the deficit rose again to stand at 9.9% (Le 271.2 million) in 1983. The same degree of financing relative to GDP was required in 1985 following a brief fall to 7.6% (Le 205.6 million) in 1984. This was due to revenues falling to 8.6% whilst expenditures rose to 18.5% of GDP.

Since 1974, when they provided Le 13 million (62.2%) of the total Le 20.9 million requirement, external sources of finance have satisfied only a relatively small proportion of the total financing requirements of Sierra Leone. Of domestic financing in 1974, other financial institutions and the non-financial private sector provided Le 4.7 million (23.2%), leaving the monetary authorities to provide Le 3.7 million banks' (18.2%). An increased requirement of Le 51 million in 1977 was met mainly by domestic sources as external funding increased to only Le 14.7 million. Of the Le 36.3 million provided domestically, deposit money banks' funding of Le 15.2 million required the monetary authority to supply Le 19.5 million (38.2%) of finance. With requirements at Le 119 million in 1979, and external sources only slightly higher at Le 38.3 million (32.2%), domestic flows were necessarily higher at Le 80.7 million. Provision of only Le 6.6 million from deposit money banks, other financial institutions and the private sector combined, required funding from the monetary authorities of Le 74.1 (62.3%).

From 1980, with deposit money banks, other financial institutions and the private sector combined providing relatively small amounts of finance, the majority of financing requirements were met by the monetary authorities, who in fact funded 58.2% of requirements in 1980, 83.1% in 1981, 87.6% in 1982 and 78.3% in 1983. In 1984, however, the contributions from the deposit money banks increased to Le 56.2 million (27.3%), and from other domestic sources to Le 40.8 million (19.8%), allowing a fall in the monetary authorities' contribution to Le 108.9 million (52.9%). This continued in 1985 with deposit money banks funding Le 132.9 million (35.4%) and others Le 53.7 million (14.3%). With external financing peaking at Le 53.9 million (14.4%), a contribution of only Le 135.1 million (36%) was required from the monetary authority.

Tanzania (see Table A-8)

The years of 1974, 1977, 1979 and 1980 saw revenues relatively static at 20% of GDP. With expenditure at 25.6% and 25.8%, respectively, in 1974 and 1977, financing of approximately 6% in both years was necessary. However, by 1979, expenditure had increased sharply to stand at 35.2%. Consequently the deficit was substantially higher at 14.8% of GDP. Subsequently, as the expenditure share fell to 28.7% in 1980, the deficit fell to 8.4%. In 1981, revenue rose faster than expenditure, leading to a further cut in the deficit to 7%. Static expenditure and falling revenue widened the financing requirement to approximately 9% in 1982, however. Continuing to 1984, a fall in the expenditure share to approximately 23.5% of GDP, despite revenue falling (to 18%), led to a reduction in the deficit to 5.5%. The deficit subsequently increased to 6% in 1985, however, as expenditure rose towards 25%, whilst revenue increased by a lesser degree.

Deficit financing data for Tanzania are, unfortunately, very sketchy. Those that are available reveal that external finance from international development institutions and foreign governments combined met Sh 425 million (46.3%) of requirements in 1974. However, in 1979, such finance only accounted for Sh 729 million (13.6%) of the increased Sh 5,376 million deficit.¹⁰ External finance had increased to Sh 847 million

(23.9%) in 1980 as the deficit fell to Sh 3,537 million. Figures for 1981 reveal that domestic financing of the Sh 3,667 million deficit, amounting to Sh 2,559 million (72.5%) was funded almost entirely by the monetary authority (Sh 2,575 million), as flows to other financial institutions and the non-financial private sector and an inflow of only Sh 240 million from the deposit money banks were evident.¹¹

Tunisia (see Table A-9)

Clearly the size of the government sector has tended to increase over time. After standing at 26.6% in 1974, the revenue share had increased to 32% before levelling off and then rising again to stand at 36.8% in 1984. A financing requirement of only 1% resulted in 1974 after expenditure reached 27.6%. However, by 1977, this had increased substantially to 6% after expenditure rose more rapidly than revenue to stand at 35.1% of GDP. The expenditure share continued to rise through to 1979, though to a lesser degree than revenue, thus leading to a diminished deficit of 4.7%. In 1980 and 1981 expenditure fell to 35 and 34%, respectively. With revenue share static, financing requirements fell further to stand at 2.5% of GDP in 1981. Subsequently, in 1982 and 1983, expenditure was significantly higher reaching a peak of 42.1% in 1983. Though revenue shares were also higher (34.5% in 1982, 33.7% in 1983), the deficit increased to 8.3% of GDP in 1983. Increased revenue and lower expenditure led to a narrowing of the deficit to approximately 5% in 1984.

With regard to deficit financing, external finance of dinar 6.4 million contributed 41.6% of the total dinar 15.4 million deficit. Of this, official international development institution (IDI) and foreign government flows were the primary source, overcoming a net outflow to other sources of dinar 1.4 million. Of dinar 9 million domestic financing, net flows to non-financial public enterprise of dinar 1.8 million and contributions of only dinar 2.5 million from deposit money banks necessitated a dinar 8.3 million (53.6%) contribution from the monetary authority. By 1977 external finance from foreign governments and others had increased substantially to dinar 38.6 million and dinar 53.6 million, respectively, to bring total external finance to dinar 95.8 million (72.5%). Of the dinar 36.4 million domestic requirement, net flows from public enterprise of dinar 28.9 million, deposit money banks of dinar 2.7 million and other general government of dinar 17.1 million allowed a flow to the monetary authority of dinar 12.4 million. External finance had increased further in 1979 to dinar 136.8 million (through increased IDI contributions of dinar 10.0 million, foreign government of dinar 48.6 million and other sources dinar 78.1 million), to finance 98% of the deficit. With flows from other financial institutions, non-financial public enterprise and the private sector of dinar 30.4 million combined, notwithstanding a net flow to the deposit money banks of dinar 21.5 million, funding of only 5.7 million was necessary from the monetary authority.

Inflows from abroad of dinar 80.4 million financed 98.9% of total financing requirements in 1980. With dinar 53 million of funding from the deposit money banks, other financial institutions, public enterprise and the private sector combined, a net flow of funds to the monetary authority of dinar 34.5 million was possible. With a slightly increased deficit of dinar 105.5 million in 1981, external finance of dinar 108.7 million, mainly from official sources, allowed net flow to domestic sources of dinar 3.2 million. Funds from deposit money banks of dinar 58.9 million permitted net

flows to the monetary authority, public enterprise, and the public sector of dinar 50.4 million, dinar 1.4 million, and 5.5 million, respectively.

There was a sharp increase in the deficit in 1982 to dinar 277.4 million, 70.7% of which was financed from foreign sources, with, in particular, other foreign sources increasing their funding to dinar 76.7 million. Of domestic finance, a large contribution from the deposit money banks (dinar 64.3 million) and other financial institutions (dinar 62.7 million), allowed continued flows to the monetary authorities, public enterprise and the private sector. A similar structure was evident in 1983 as the deficit increased to dinar 458.8 million. External finance provided dinar 284.1 million (61.9%), of which other non-official sources increased to dinar 145.1 million. A further large contribution from the deposit money banks (dinar 50.6 million) and other financial institutions allowed net flows to the monetary authority and public enterprise.

External financing was sharply lower in 1984 (as non-official other sources fell to dinar 6.7 million) at dinar 146.8 million, providing finance for only 47.8% of the reduced deficit of dinar 307.3 million. With financing of dinar 70.8 million from other financial institutions, dinar 73.5 million from deposit money banks, only dinar 12.4 million of funds was required from the monetary authority.

Uganda (see Table A-10)

After standing at approximately 9.5%, due to expenditure running at 17% and revenue at 7.5%, Uganda's deficit fell to stand at only 2.5% following a sharp fall in expenditure to 9.5% in excess of the fall in revenue to 7% of GDP. In 1979 and 1980, the deficit narrowed to 3% with both revenue and expenditure falling in 1979 before leveling off in 1980. With revenue falling in 1981 to 2% of GDP and expenditure sharply higher at 9% the deficit grew substantially to 7%. Following 1981, expenditure continued to rise to stand at 14% in 1982 and 1983. Revenue increased at a faster rate, however, in both these years so that by 1983 the financing requirement had decreased to less than 3%. In 1984 revenue was once again higher at 14%. However, expenditure had increased to stand at a peak of 17.5%. Consequently, the deficit widened to 3.5%. A further rise to 5% resulted in 1985 as revenue fell relatively more than expenditure. In 1986, this trend was reversed, leading to a slight fall in financing requirements.

Financing data reveal the extent to which Uganda has had to rely on domestic sources of finance to cover central government's excess expenditure. In 1980, external financing of Sh 0.46 million met only 1.2% of the Sh 19.1 million requirement. Of the Sh 39 million domestic financing requirement, funds of Sh 9 million from the deposit money banks and Sh 2.7 million from others necessitated Sh 27.3 million (69.8%) of finance from the monetary authority. The financing structure was virtually identical in 1981. In 1982, reliance on the monetary authority was lessened as contributions from the deposit money banks and others increased to Sh 63.2 million and Sh 10.9 million, respectively, financing together 50.8% of the Sh 145 million requirement. Sh 73.8 million (50.6%) of funding was required from the monetary authority.¹²

In 1983, external sources financed Sh 14.7 million (11%) of the Sh 133.8 million requirement. Sh 172.1 million of financing was required from the monetary authority, as net flows to the deposit money banks amounted to Sh 67.1 million, and other domestic sources combined provided only Sh 15 million. Subsequently, in 1984, a net external outflow of Sh 7.5 million was evident, necessitating domestic financing of

Sh 229.2 million in order to fund the Sh 221.2 million deficit.¹³ With Sh 260.4 million raised from other financial institutions, public-sector enterprise and the private sector, net flows to the monetary authority and the deposit money banks of Sh 26 million and Sh 5.2 million, respectively, were evident. In 1985 external sources were significantly higher at Sh 134.7 million, funding 21% of the Sh 640.2 million requirement. With a large net flow to public enterprise of Sh 55.8 million and only a small contribution from other domestic sources, financing of Sh 536.3 million from the monetary authority was necessary.

Zaire (see Table A-11)

A large financing requirement of 17.6% was evident in 1974, with expenditure standing at 49.7% and revenue standing at 32.1%. By 1977, expenditure had fallen greatly to 32.3%. With revenue falling to a lesser extent to 21.9%, the deficit narrowed to 11.4%. By 1979, expenditure had fallen again to 27.1% whilst revenue had actually increased to stand at 22.1%. Thus, the deficit declined further to stand at 4.9% of GDP. With revenue increasing further in 1980, comparatively more so than expenditure, the financing requirement fell to 1.9%. Subsequently, 1981 and 1982 saw declining revenue shares and rising expenditures leading to an increased deficit that had reached 11.2% by 1982. Sharply falling expenditure in 1983 and stagnant revenue led to a sharp reduction of the deficit to only 2.8%. This remained virtually unchanged in 1984 as expenditure and revenue shares grew sharply in line, while 1985 and 1986 witnessed the development of a surplus as expenditures fell back to approximately 28% by 1986. In 1985 revenue rose to 35%, leading to a surplus of approximately 6% of GDP.

Data on the sources of funding for Zaire's central government deficit were available only up to 1983. In 1974, however, external sources provided zaire 118.5 million (36.5%) of the finance required to meet the zaire 324 million deficit. Of the remaining domestic finance, a provision of only zaire 13.2 million from the deposit money banks and the net financial flows to the other financial institutions of zaire 1.1 million, necessitated a zaire 193.7 million (59.7%) financing flow from the monetary authorities. With an increased requirement of zaire 449.6 million, the structure of financing was similar in 1977. However, in 1979, external sources, falling to Zaire 63.7 million, met only 11.6% of the zaire 548.6 million requirement. Domestic funding of zaire 484.9 million was met almost entirely by the monetary authorities (zaire 477.9 million or 87.1%). With lower requirements of zaire 331.6 million in 1980, increased external sources of zaire 126.1 million provided 38% of funds. With a net flow of zaire 32.8 million to other financial institutions and a minimal contribution from the deposit money banks, the monetary authority once again provided the bulk of finance amounting to zaire 235.7 million.

External finance rose again to zaire 722.3 million (33.5%) in 1981 as the deficit increased to zaire 2,157 million. Again the monetary authority provided the bulk of funds (zaire 1,485 million). With external sources falling to zaire 276.3 million (7.9%), the increased deficit of zaire 3,484 million in 1982 was financed almost entirely by the monetary authority (zaire 3,246.8 million or 93.2% of total requirements). Subsequently, a substantial external outflow of zaire 867.2 million in 1983, and continued flows to the deposit money banks and other financial institutions (totalling zaire

41.1 million) led to the monetary authority providing zaire 2,561.6 million of funds in the face of a zaire 1,653 deficit requirement.

Zambia (see Table A-12)

A surplus of 3.4% of GDP was apparent in 1974, with revenue standing at 34.4% and expenditure at 31% of GDP. Revenue had declined to 23.3% in 1979 and fluctuated between 22 and 26% for the rest of the period. Meanwhile expenditure rose to 40% by 1977, thus necessitating financing of 13.2%. Although subsequently falling to 9.1% in 1979, due to decreased expenditures, the deficit increased again to 18.5% in 1980 as expenditure reached 44.3% of GDP. Though falling to 13% in 1981 as the expenditure share fell, the deficit rose again to 18.6% due to increased expenditure. With expenditure sharply lower in 1983 and 1984 the deficit fell to approximately 8%. More recently, in 1985, increased expenditure did lead to a further sharp rise in financing requirements to 14.9%.

Focusing on the structure of financing after the surplus of kwacha 64.4 million in 1974, external sources contributed only kwacha 19 million (7.3%) to the total requirement of kwacha 261.4 million in 1977. A net inflow of kwacha 24.2 million from international development institutions was the main source of these funds, offsetting net outflows to foreign governments and other (non-official) sources. With deposit money banks providing kwacha 250.3 million and other financial institutions kwacha 36.8 million, a net flow of funds to the monetary authority (of kwacha 21.1 million) and to the non-financial private sector was possible. External financing had increased to kwacha 137.5 million (57%) in 1979 to meet a reduced requirement of kwacha 241.1 million. In 1980, this had increased further in nominal terms to provide kwacha 296.6 million (47.5%) towards the increased deficit of kwacha 567.5 million.¹⁴ External finance fell slightly in 1981 to kwacha 247.4 million with foreign governments providing, on balance, kwacha 240 million and IDIs kwacha 14.8 million, offsetting a net outflow to other sources of kwacha 7.5 million. This was equivalent to 54.9% of the total requirement of kwacha 449.6 million. Of domestic financing, flows to deposit money banks of kwacha 163.4 million necessitated kwacha 283 million of financing from the monetary authority despite a net flow from other financial institutions of kwacha 97 million. With external financing lower at kwacha 111.6 million (16.7%) in 1982, an increased deficit required a large increase in the degree of domestic financing. This was, in the main, provided by the monetary authority (kwacha 357 million) and the deposit money banks (kwacha 218.1 million).

In 1983, external funding was virtually unchanged at kwacha 119.9 million (36.6%) in nominal absolute terms. A significantly reduced deficit of kwacha 327.3 million required substantially less domestic finance. A net flow to the deposit money banks of kwacha 45.4 million was offset by contributions from the monetary authority (kwacha 146.6 million) and other sources.¹⁵ The increased deficit of kwacha 413.7 million in 1984 required increased domestic financing, as funds from abroad increased only slightly to kwacha 129.3 million (31.3%). With funding from the deposit money banks of kwacha 123.5 million and other sources of kwacha 121.7 million, a fall in the requirements from the monetary authority was evident.

External finance was substantially higher at kwacha 599.7 million or 57% of requirements in 1985, due to increased flows from IDIs (kwacha 382.9 million) and foreign governments (kwacha 199.8 million). Remaining finance from domestic sources

was forthcoming mainly from deposit money banks (kwacha 384.5 million or 36.5% of total requirements). With other sources providing kwacha 8.5 million, only kwacha 59.9 million was required from the monetary authority.

Zimbabwe (see Table A-13)

After standing at 4.3% in 1977, with revenue at 26.2% and expenditure at 30.5%, Zimbabwe's deficit had increased to 10.5% of GDP by 1980 due to subsequent increases in the expenditure share in 1979 and 1980 and a fall in the revenue share in 1979. By 1981, with revenue higher at 25.5% and expenditure lower at 31.4%, financing equivalent to 5.9% of GDP was necessary. However, this had risen to 10.5% by 1982 as expenditure rose sharply to reach 40.5% of GDP. With revenue continuing to rise, reaching 30.8% in 1983 and expenditure falling back to 37.2% the deficit fell to 6.4%. In 1984, rising expenditure, peaking at 41.2%, led to an increased deficit. In 1985, however, the deficit had fallen back to 7.4% as expenditure fell to a greater degree than revenue.

With respect to financing, a net external inflow of only \$2.6 million necessitated domestic financing of \$98 million to meet a deficit of \$95.4 million in 1977. In 1979, external funds had increased substantially to \$121.4 (41.4% of total requirements), requiring that domestic financing increase only to \$172 million to meet an enlarged deficit of \$293.4 million. With financing requirements increased, however, to \$376 million in 1980, lower external inflow of \$78.9 million required a greater increase in domestic financing to \$297.1 million (79%). An increase in external financing to \$146 (55.8%), coupled with a lower deficit of \$261.6 million, led to a lower demand for domestic financing. With net financial flows to deposit money banks of \$112.2 million, and contributions from other domestic sources of \$152.1 million, funding of \$75.7 million (28.9%) from the monetary authority was necessary.

As the deficit widened sharply to \$545.3 million in 1982 and external financing to \$131.8 million, domestic finance would appear to have been placed under greater pressure. With deposit money banks providing \$25.4 million, other financial institutions, public enterprise and the private sector combined providing \$145.9 million, requirements from the enterprise and the private sector combined providing \$145.9 million, requirements from the monetary authority stood at \$242.2 million (44.4%). External funding fell to \$43.5 million in 1983, with the bulk of \$33.8 million being provided by other non-official sources. This combined with a contribution of \$14.6 million from the IDIs to offset a net outflow of \$4.9 million to foreign governments. Domestic financing of \$350.2 (89%) was required to meet a lower deficit of \$393.7 million. Other financial institutions and the private sector provided the majority of this at \$287.7 million. With a net flow of funds to deposit money banks, finance of \$71.7 million (18.2%) was required from the monetary authority.

External finance was significantly higher at \$322.1 million in 1984 due to an increase in other non-official sources to \$266.6 million and IDI sources to \$56.2 million. Domestic finance consequently fell to \$325.3 million (50.2%) despite an increased deficit of \$647.4 million.¹⁶ and 1985 again witnessed an increase in external funds with other non-official sources increasing to \$416.6 million, foreign government sources to \$35.2 million and IDI sources to \$65.5 million. Overall, these sources financed 82.5% of requirements, allowing a net flow of funds to the monetary authority

of \$269.7 million, as contributions from deposit money banks stood at \$10.6 million, whilst those from other sources increased to \$364.2 million.

Notes to appendix

1. Figures for the composition of revenues and expenditures, and the financing employed to meet the resulting requirements are presented in Tables A-1 to A-13, and have been extracted from *Government Financial Statistics (GFS)*, 1987. For Kenya, in particular, the January 1989 issue of *International Financial Statistics* reveals that these have been substantially revised (aggregates only). The figure for Kenya, therefore, uses the updated aggregates. However, financing, revenue and expenditure breakdowns were not available. Therefore, for the purposes of consistency, the 1987 data from GFS are published in Table A-3, and alluded to in the text.
2. Unfortunately, data revealing a breakdown of the general sources/destinations of external flows were not available for Ghana.
3. Domestically, as stated in the paper, the government can enforce financing from the financial sector through sales of debt to the domestic money banks and other financial sector or reserve requirements, if it cannot sell enough bonds to the private sector. Failing this, finance can be procured straight from the monetary authority. Although not strictly true, finance from this source is considered to fund residual requirements.
4. Financing requirements actually fell as a percentage of GDP to 2.7%.
5. Data on the sources of the domestic financing component were not available.
6. Financing flows from international development institutions and foreign governments have been termed "official" flows, whilst "other" sources, which include long- and short-term foreign bonds, bank loans (and other loans) and advances from foreigners, and supplier credits, are considered as "non-official" private flows of finance.
7. It should be noted that data for 1986 and 1987 are still provisional.
8. In fact equivalent to 9.5% of total financing requirements for that year.
9. "Other" includes other financial institutions and the non-financial private and public sectors.
10. Data revealing the sources of external and domestic finance were not available.
11. Sh 94 million of financing was unclassified in this year.
12. A slight net outflow of funds to external sources (1.4%) was also evident in 1982.
13. Figures may not reconcile completely due to adjustments in the accounts. These amounted to Sh 0.5 million in this year.
14. No data on the sources of these external funds were available.
15. This includes other financial institutions and the non-financial private sector.
16. A detailed breakdown of domestic finance sources was not available.

Table A-1
BOTSWANA (million pula, year beginning 1 April)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986
GOVERNMENT REVENUES										
Taxation income, profits and capital gains	15.62	28.01	47.37	87.34	100.64	96.52	137.42	251.87	320.77	
Taxation on property	0.26	0.24	0.63	0.25	0.75	0.90	0.51	0.78	0.81	
Domestic taxes on goods and services:	1.02	1.27	1.88	1.94	2.59	5.55	10.10	7.92	9.84	
Taxes on international trade: Import duties	30.48	37.78	80.18	102.02	104.29	114.32	156.84	155.79	149.23	
Export duties	0.48	0.49	0.63	0.49	0.46	0.61	0.57	0.61	0.58	
Other taxes	0.03	0.13	0	0	0	0	0	0	0	
TOTAL TAX REVENUE	47.89	67.92	130.69	192.04	208.73	217.90	305.44	416.97	481.23	
NON-TAX REVENUE	12.71	29.13	74.48	70.08	62.88	120.58	200.84	330.61	593.85	
TOTAL CURRENT REVENUE	60.6	97.05	205.17	262.12	271.61	338.48	506.28	747.58	1075.08	
CAPITAL REVENUE	0	0.34	0.92	1.76	3.66	1.91	1.69	3.24	4.37	
TOTAL REVENUE	60.60	97.39	206.09	263.88	275.27	340.39	507.97	750.82	1079.45	1444.37
As a percentage of GDP:	32.18268	30.47246	39.44306	37.19238	34.83548	42.92975	48.39192	57.66223	64.99969	65.84773
TOTAL REVENUE AND GRANTS	65.89	115.48	243.17	301.69	315.06	387.60	556.17	791.15	1120.68	1511.99
As a percentage of GDP:	34.99203	36.13266	46.53971	42.52149	39.87091	48.88384	52.98370	60.75954	67.48238	68.93047

contd.

GOVERNMENT EXPENDITURE BY FUNCTION											
General public services	13.34	26.27	42.11	52.23	61.12	66.61	83.17	107.46	139.40		
Defence		6.29	21.89	25.65	26.17	23.61	27.92	35.88	41.33		
Education	11.04	24.66	44.24	58.08	63.50	65.61	77.87	91.83	113.73		
Health	2.46	7.65	9.42	14.10	17.85	18.31	22.60	25.14	31.95		
Social security and welfare	0.20	0.28	2.05	1.85	0.82	6.65	10.98	22.64	17.95		
Housing	7.71	5.80	13.13	18.74	19.92	33.77	25.52	24.96	29.14		
Other community and social services	1.04	1.55	2.59	3.67	5.11	4.67	5.16	7.09	8.58		
Economic services	22.74	34.17	54.32	70.51	80.67	121.27	109.76	157.53	190.57		
Other	3.58	6.04	10.68	17.08	24.97	32.11	38.18	53.70	70.18		
TOTAL EXPENDITURE	62.11	112.71	200.43	261.91	300.13	372.61	401.16	526.23	642.83		
As a percentage of GDP	32.98459	35.26595	38.35980	36.91472	37.98152	46.99331	38.21663	40.41394	38.70837		

GOVERNMENT EXPENDITURES (CAPITAL OR CURRENT)											
Expenditure on goods and services	28.22	47.74	75.13	122.75	142.40	164.55	194.70	243.25	284.57		
Interest payments	1.30	3.74	5.01	5.08	5.65	11.03	13.06	19.20	26.50		
Subsidies	6.48	18.21	37.18	50.77	63.88	94.49	108.29	153.84	186.49		
Unallocable		6.07	19.71								
CURRENT EXPENDITURE	36.00	75.76	137.03	178.60	211.93	270.07	316.05	416.29	497.56		
CAPITAL EXPENDITURE	26.11	36.95	63.40	83.31	88.20	102.54	85.11	109.94	145.27		
TOTAL EXPENDITURE	62.11	112.71	200.43	261.91	300.13	372.61	401.16	526.23	642.83	909.17	
As a percentage of GDP	32.98459	35.26595	38.35980	36.91472	37.98152	46.99331	38.21663	40.41394	38.70837	41.44837	
TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	71.56	120.06	221.79	302.96	333.4	407.69	452.95	602.83	706.83	972.22	
As a percentage of GDP	38.00318	37.56570	42.44784	42.70049	42.19185	51.41758	43.15042	46.29675	42.56217	44.32277	

contd.

Table A-2
GHANA (million cedis year ending 31 December after 1982, year ending 30 June through 1982)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	113.1	226	379	604	801	1381	1730	4060	7426	13537	
Taxes-payroll and manpower tax	2.0	2	2	2	2	2	2	1	10	11	
Taxation on property	0.6	6	2	5					25	56	
Domestic taxes on goods and services	140.8	351	422	832	1263	1884	1727	5620	8592	19778	
Taxes on international trade: Import duties	73.0	177	355	361	472	570	1792	3159	6591	14236	
Export duties	147.6	276	1250	926	201	2800	4974	9172	9172	14231	
Exchange taxes				17	230	343	148	109	61		
Other				1	1	2	254				
Other taxes	0.3	3	1	0	0	0	6	8	41	74	
TOTAL TAX REVENUE	477.4	1041	2411	2747	2970	4182	8459	17931	31918	61923	
NON-TAX REVENUE	101.5	100	189	204	264	622	1726	3797	5216	7835	
TOTAL CURRENT REVENUE	578.9	1141	2600	2951	3234	4804	10185	21728	37134	69758	
CAPITAL REVENUE											
TOTAL REVENUE	578.9	1141	2600	2951	3234	4804	10185	21728	37134	69758	
TOTAL REVENUE AND GRANTS	583.6	1171	2600	2951	3279	4856	10242	22642	40311	73626	
As a percentage of GDP	12.52360	10.49001	9.212670	6.886332	4.521137	5.617119	5.565155	8.368537	11.71211		

contd.

GOVERNMENT EXPENDITURES
BY FUNCTION

General public services	172.1	348	1114	843	1627	1798	5846	9180	13362
Defence	58.4	112	190	175	488	587	1605	3432	4605
Education	146.4	416	667	1026	1319	1779	5387	8238	16905
Health	66.6	159	256	325	493	549	2291	4483	5854
Social security and welfare	85.3	169	305	244	553	512	1131	2288	3777
Housing				75	128	132	571	915	1366
Other community and social services	23.7	81	142	121	109	88	598	706	1192
Economic services	99.6	457	1079	967	1756	1833	5053	10888	11099
Other	102.0	395	543	892	1246	2252	4212	5633	12500
Unclassified									
Adjustment									
TOTAL EXPENDITURE	754.1	2137	4296	4668	7719	9530	26694	45763	70660

GOVERNMENT EXPENDITURES

Expenditure on goods and services	424.3	857	2199	2253	3868	4798	15644	28597	42142
Interest payments	67.6	177	542	725	1022	1974	3435	5086	11341
Subsidies	105.0	327	759	1201	1440	1831	4257	4778	7351
Adjustment: Suspense account-current expenditure	26.7								

CURRENT EXPENDITURE

CURRENT EXPENDITURE	623.6	1361	3500	4179	6330	8603	13401	23336	38461	60834
CAPITAL EXPENDITURE	130.5	776	796	489	1389	927	1354	3368	7302	9826

TOTAL EXPENDITURE

TOTAL EXPENDITURE	754.1	2137	4296	4668	7719	9530	14755	26704	45763	70660
As a percentage of GDP	16.18240	19.14359	15.22216	10.89305	10.64307	11.02371	8.017365	9.869862	13.29616	

contd.

TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS As a percentage of GDP	779.7 16.73175	2228 19,95879	4400 15,59067	4759 11,10540	7986 11,01122	9704 11,22498	15175 8,245579	27485 10,15852	47890 13,91415	73327
Total financing requirement As a percentage of GDP	196.1 4,208154	1057 9,468780	1800 6,378002	1808 4,219074	4707 6,490086	4848 5,607865	4933 2,680424	4843 1,789984	7579 2,202032	-299
SOURCES OF FINANCE										
Domestic:	197.5	1044	1800	1518	4340	4421	3825	3028	4043	
Monetary authorities	115.1	652	1318	1116	3311	1673	455	2289	1800	
Deposit money banks	-4.5	141	150	172	234		1700	-480	205	
Other:	91.1	250	332	230	795	2748	1670	1219	2038	2844
Other financial institutions		187	140	140	285	210	230	758	1878	3182
Nonfinancial private sector		145	145	90	510	2538	1440	461	160	-338
External:	-1.4	13		290	367	389	970	1815	3522	
Unallocable Adjustments	-4.2					38	138		14	

Table A-3
KENYA (million shillings, year ending 30 June)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	1155	2149	3022	3437	3952	3993	4624	5023	6020		
Taxation on property	10	11	13	36	13	29	11	12	4		
Domestic taxes on goods and services	1183	2028	3162	4583	5189	5619	5942	7244	7756		
Taxes on international trade: Import duties	795	1057	2025	2050	2919	3674	3306	3424	3043		
Export duties		56	140	63	106	136	201	541			
Other taxes	44	50	84	82	72	65	78	83	119		
TOTAL TAX REVENUE	3187	5295	8362	10328	12208	13486	14097	15987	17483		
NON-TAX REVENUE	438	852	1471	1495	1359	1388	2060	1785	2443		
TOTAL CURRENT REVENUE	3625	6147	9833	11823	13567	14874	16157	17772	19926		
CAPITAL REVENUE		2	2	2	15	11	2	1	1		
TOTAL REVENUE	3625	6149	9835	11825	13582	14885	16159	17773	19927		
As a percentage of GDP	17.82027	16.53090	21.64535	22.04141	22.46183	21.90291	21.14941	21.06279	20.71263		
TOTAL REVENUE AND GRANTS	3696	6383	10102	12208	13974	15281	16622	17985	20090		
As a percentage of GDP	18.16930	17.15998	22.23298	22.75531	23.11012	22.48561	21.75540	21.31403	20.88205		

contd.

GOVERNMENT EXPENDITURES
BY FUNCTION

General public services	682	1242	2069	2293	2933	2957	2689	3137	4140
Defence	285	858	2114	2237	1795	2569	2775	2801	224
Education	923	1578	2134	2669	3443	3864	4119	4305	5080
Health	289	591	863	1066	1306	1423	1389	1465	1655
Social security and welfare	98	14	18	19	23	37	27	28	30
Housing	57	43	72	104	119	126	107	92	95
Other community and social services	109	162	254	334	410	477	628	693	981
Economic services	1167	2083	3416	3672	5054	5230	4920	5388	7112
Other	327	669	995	1221	1648	2727	3327	3859	4386
Unclassified									
TOTAL EXPENDITURE	3937	7240	11935	13615	16731	19410	19961	21768	25723

GOVERNMENT EXPENDITURES

Expenditure on goods and services	2359	3941	7487	7732	9075	10676	11551	12397	13171
Interest payments	240	479	850	961	1361	2371	2919	3472	3918
Subsidies	481	1111	1063	1762	2415	3353	2532	3224	4434
CURRENT EXPENDITURE	3080	5531	9400	10455	12851	16400	17002	19093	21524
CAPITAL EXPENDITURE	857	1709	2535	3160	3880	3010	2959	2675	4199
TOTAL EXPENDITURE	3937	7240	11935	13615	16731	19410	19961	21768	25723
As a percentage of GDP	19.35404	19.46393	26.26713	25.37791	27.66963	28.56133	26.12559	25.79727	26.73713
TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	4283	7710	13117	14617	17976	20744	20460	22266	26335
As a percentage of GDP	21.05496	20.72747	28.86854	27.24561	29.72861	30.52428	26.77870	26.38745	27.37326

contd.

TOTAL FINANCING REQUIREMENTS									
	587	1327	3015	2409	4002	5463	3838	4281	6245
	2,885,655	3,567,492	6,635,561	6,635,561	4,490,298	6,618,486	8,038,670	5,023,297	6,491,211
SOURCES OF FINANCE									
Domestic Monetary authorities	378	863	1908	1141	2126	3400	2013	2733	4403
External:									
From international development inst.	209	464	1107	1268	1876	2063	1825	1548	1842
Foreign governments	96	225	656	349	767	372	1095	156	581
Other	59	258	253	191	389	230	440	211	601
	54	-19	198	728	720	1461	290	1181	660

Table A-4
MALAWI (million kwacha, year beginning 1 April)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income profits, and capital gains	21.70	43.18	59.36	64.93	61.93	79.45	93.76	117.24	149.35		
Taxation on property	0.05	0.08	0.09	0.07	0.02	0.14	0.27	0.16	0.50		
Domestic taxes on goods and services	18.20	29.85	51.32	59.24	65.92	73.81	86.22	110.74	122.95		
Taxes on international trade: Import duties	13.57	16.26	32.67	42.08	50.24	52.49	58.46	66.60	92.59		
Export duties											
Other taxes	0.27	0.57	0.49	0.55	0.77	1.78	1.29	1.52	1.72		
TOTAL TAX REVENUE	53.79	89.94	143.93	166.87	178.88	207.67	240.00	296.26	367.11		
NON TAX REVENUE	16.88	18.88	31.88	24.77	34.81	24.19	36.34	43.06	64.07		
TOTAL CURRENT REVENUE	70.67	108.82	175.81	191.64	213.69	231.86	276.34	339.32	431.18		
CAPITAL REVENUE	0.27	0.25	0.40	0.60	0.39	0.11	0.20	0.42	0.37		
TOTAL REVENUE	70.94	109.07	176.21	192.24	214.08	231.97	276.54	339.74	431.55		
As a percentage of GDP	15.37161	14.98214	20.38288	19.12645	19.31955	18.63063	19.24559	19.88527	21.33112		
TOTAL REVENUE AND GRANTS	73.23	125.53	211.57	236.11	257.61	271.74	310.89	380.78	461.30		
As a percentage of GDP	15.86782	17.24313	24.47310	23.49119	23.24790	21.82475	21.63616	22.28738	22.80164		

contd.

GOVERNMENT EXPENDITURES BY FUNCTION										
General public services	23.19	26.02	41.41	41.57	58.69	63.62	78.34	85.95	116.07	
Defence	4.49	13.74	38.84	44.60	33.10	27.61	25.60	26.97	36.42	
Education	14.23	18.09	24.18	31.21	43.50	51.31	55.63	58.36	67.10	
Health	6.98	8.63	14.81	19.23	20.29	18.80	28.12	37.50	41.79	
Social security and welfare	3.84	2.84	4.19	5.11	4.76	4.69	5.43	5.05	4.99	
Housing	0.07	1.33	0.33	0.55	6.51	3.54	0.05	6.79	6.66	
Other community and social services	3.96	4.60	8.19	9.49	7.51	5.65	2.73	4.30	3.16	
Economic services	37.04	72.65	103.34	152.04	150.11	120.53	146.30	166.22	185.85	
Other	7.47	11.69	37.70	33.75	54.27	56.68	59.00	67.31	124.52	
Unclassified	2.66		6.59	10.10	14.66	7.35	14.20	14.93	21.93	
TOTAL EXPENDITURE	103.93	159.79	279.58	34.765	393.40	359.78	415.40	473.38	608.49	
GOVERNMENT EXPENDITURES										
Expenditure on goods and services	48.71	76.77	110.81	128.59	189.09	175.85	211.30	210.97	258.02	
Interest payments	6.53	10.87	20.20	32.47	53.75	55.38	55.92	75.60	120.66	
Subsidies	12.20	10.03	17.90	19.87	21.10	24.98	26.21	33.65	43.84	
CURRENT EXPENDITURE	67.44	97.67	148.91	180.93	263.94	256.21	293.43	320.22	422.52	
CAPITAL EXPENDITURE	36.49	62.12	130.67	166.72	129.46	103.57	121.97	153.16	185.97	
TOTAL EXPENDITURE	103.93	159.79	279.58	347.65	393.40	359.78	415.40	473.38	608.49	
As a percentage of GDP	22.52004	21.94917	32.34008	34.58859	35.50221	28.89567	28.90945	27.70734	30.07710	
TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS										
As a percentage of GDP	102.45	170.72	287.11	396.39	395.34	366.76	412.68	469.10	623.90	
	22.19934	23.45054	33.21110	39.43786	35.67728	29.45626	28.72016	27.45683	30.83881	

contd.

Table A-5
MAURITIUS (million rupees, year ending 30 June)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	122.5	376.4	311.1	277.2	362.5	379.1	395.1	425.4	399.7	354.8	390.0
Taxation on property	19.4	49.2	63.4	69.8	78.6	74.8	85.0	93.5	131.5	159.5	146.0
Domestic taxes on goods and services	99.4	168.7	264.6	311.3	364.4	410.9	528.0	659.7	705.6	775.8	825.9
Taxation on international trade: Import duties	141.6	349.1	465.0	640.4	708.4	689.4	989.1	1161.9	1360.7	1721.1	1740.0
Export duties	48.2	124.9	145.2	287.3	268.2	377.8	416.4	442.0	369.9	459.3	460.0
Other taxes on international trade	0	0	4.9	7.0	10.0	11.6	12.0	12.5	15.0	19.5	20.0
Exchange profits	0	0	0	0	0	0	0	0	0	0	0
Other taxes	8.7	4.6	6.5	8.5	9.0	9.8	10.9	7.7	10.6	12.3	10.0
TOTAL TAX REVENUE	439.8	1072.9	1260.7	1601.5	1801.1	1953.4	2436.5	2802.7	2993	3502.3	3591.9
NON TAX REVENUE	16.0	95.3	156.3	209.2	258.0	267.5	366.1	267.1	403.2	395.2	653.0
TOTAL CURRENT REVENUE	455.8	1168.2	1417.0	1810.7	2059.1	2220.9	2802.6	3069.8	3396.2	3897.5	4244.9
CAPITAL REVENUE	0.3	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUE	456.1	1168.2	1417.0	1810.7	2059.1	2220.9	2802.6	3069.8	3396.2	3897.5	4244.9
As a percentage of GDP	12.97212	23.63820	18.54712	20.81982	20.16945	18.90127	21.93816	21.37743	20.43687	19.84470	
TOTAL REVENUE AND GRANTS	460.2	1173.2	1418.0	1812.7	2073.00	2288.7	2825.2	3122.7	3562.1	4130.5	4549.9
As a percentage of GDP	13.08873	23.73937	18.56020	20.84281	20.30561	19.47829	22.11506	21.74582	21.43519	21.03105	

contd.

GOVERNMENT EXPENDITURE BY FUNCTION											
General public services	142.4	318.2	410.1	425.1	494.6	561.5	548.6	602.9	737.3	761.0	973.0
Defence	4.0	9.5	12.3	19.0	66.1	29.2	32.3	36.4	35.8	36.7	45.6
Education	66.2	222.1	377.9	417.7	466.4	490.9	559.8	561.6	590.2	604.6	624.2
Health	49.5	121.8	171.7	177.2	205.8	236.8	280.8	303.2	323.4	347.5	401.1
Social security and welfare	176.0	290.6	368.3	403.9	520.1	607.7	634.5	600.7	662.1	695.5	788.1
Housing	10.9	34.7	86.0	103.6	99.4	168.5	122.2	74.4	57.4	71.7	90.6
Other community and social services	7.0	16.4	15.2	17.8	20.2	20.0	22.9	25.1	44.1	51.2	44.6
Economic services	77.2	284.5	326.7	276.2	391.1	326.5	330.5	387.6	549.2	557.0	913.0
Other	84.8	227.7	367.2	529.4	690.0	895.1	1051.4	1151.3	1277.0	1379.7	1481.5
Adjustment	-29.1										
TOTAL EXPENDITURE	588.9	1525.5	2135.4	2369.9	2953.7	3336.2	3583.0	3743.2	4276.5	4504.9	5361.7
GOVERNMENT EXPENDITURES											
Expenditure on goods and services	263.7	629.3	922.4	988.2	1169.6	1334.7	1465.5	1537.7	1638.6	1752.8	2022.0
Interest payments	31.1	73.3	179.4	323.9	461.4	642.2	773.4	860.0	988.7	1069.6	1141.0
Subsidies	201.0	473.5	656.0	659.8	840.0	915.3	983.7	996.0	1064.0	1115.5	1276.6
Unallocable expenditure											
CURRENT EXPENDITURE	495.8	1176.1	1757.8	1971.9	2471.0	2892.2	3222.6	3393.7	3691.3	3937.9	4439.6
CAPITAL EXPENDITURE	93.1	349.4	377.6	398.0	482.7	444.0	360.4	349.4	585.2	567.0	922.1
TOTAL EXPENDITURE	588.9	1525.5	2135.4	2369.9	2953.7	3336.2	3583.0	3743.2	4276.5	4504.9	5361.7
As a percentage of GDP	16.74914	30.86806	27.95026	27.24962	28.93231	28.39319	28.04696	26.06685	25.73414	22.93737	
TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	661.9	1630	2300.2	2709.3	3366.3	3677.1	3985.3	3979.9	4385.4	4770.7	5488.9
As a percentage of GDP	18.82536	32.98259	30.10732	31.15212	32.97384	31.29446	31.19608	27.71518	26.38945	24.29073	

contd.

TOTAL FINANCING REQUIREMENTS	201.7	456.8	882.2	896.6	1293.3	1388.4	1160.1	857.2	823.3	640.2	939.0
As a percentage of GDP	5.736632	9.243221	11.54712	10.30930	12.66823	11.81617	9.081017	5.969359	4.954266	3.259674	
SOURCES OF FINANCE											
Domestic:	172.2	386.6	573.1	679.4	586.1	590.9	1335.1	997.8	105.9	754.1	726.5
Other general government	-37.7	-14.8	100.1	101.6	104.5	65.7	247.8	207.2	317.1	323.6	
Monetary authority	226.2	479.3	398.1	366.5	592.8	470.2	319.8	661.8	-352.1	-379.5	
Deposit money banks	-36.2	-190.3	92.2	132.8	-139.1	123.8	626.0	-18.5	26.5	652.3	
Other	21.3	114.7	-15.3	85.5	28.3	-51.5	172.3	188.5	140.6	196.6	
Adjustments	-1.4	-2.3	-2.0	-7.0	-0.4	-17.3	-30.8	-41.2	-26.2	-38.9	
External:	29.5	70.2	309.1	217.2	707.2	797.5	-175	-140.6	717.4	-113.9	212.5
International development institutions	7.3	36.1	54.5	79.6	77.8	280.8	125.1	294.6	372.8	-37.1	
Foreign government	22.6	33.3	20.5	54.7	236.2	189.2	-105.9	106.7	172.8	155.3	
Other	0.5	0	241.2	84.2	387.0	324.1	-195.2	-541.3	175.2	-234.7	
Change in cash, deposits, and negotiable securities	-0.9	0.8	-7.1	-1.3	6.2	3.4	1.0	-0.6	-3.4	2.6	

Table A-6
MOROCCO (million dirhams, year ending 31 December)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	1017	2529	3292	3317	3735	3792	4285	4957	5578		
Social security contributions	336	561	782	923	1168	1156	1173	1304	1497		
Taxation on property	206	400	397	407	418	474	532	627	748		
Domestic taxes on goods and services	2592	4194	5030	5981	6189	7962	8902	9957	11315		
Taxation on international trade: Import duties	987	2275	2768	3315	3951	4697	4229	4418	4466		
Export duties	230	127	129	215	257	246	223	296	333		
Profits: Exports and imports of marketing boards	0	0	50	0	0	0	0	0	0		
Exchange profits	2	35	0	52	0	0	0	0	0		
Other taxes	174	382	759	874	997	1219	1218	1374	1541		
TOTAL TAX REVENUE	5544	10503	13207	15084	16715	19546	20562	22933	25478		
NON TAX REVENUE	2808	1716	2355	2151	3351	4534	3658	3450	4418		
TOTAL CURRENT REVENUE	8352	12219	15562	17235	20066	24080	24220	26383	29896		
CAPITAL REVENUE	19	114	241	267	352	308	296	301	317		
TOTAL REVENUE	8371	12333	15803	17502	20418	24388	24516	26684	30213		
As a percentage of GDP	24.91369	24.78496	25.47227	24.94583	26.60672	27.07070	25.90448	25.45211	25.32310		

contd.

TOTAL REVENUE AND GRANTS	8468	12333	15803	17502	21418	24388	24516	26684	30213
As a percentage of GDP	25.20238	24.78496	25.47227	24.94583	27.90982	27.07070	25.90448	25.45211	25.32310
GOVERNMENT EXPENDITURE BY FUNCTION									
General public services	2317	6499	4783	4604	555	5800	5095	5425	6021
Defence	1057	3294	3495	4400	5047	5814	4675	4960	6453
Education	1393	2776	3821	4242	5127	5707	5959	6404	6548
Health	330	598	664	829	942	1002	939	1031	1093
Social security and welfare	804	776	1263	1262	1419	1681	1941	2043	2212
Housing	57	425	115	342	299	352	349	299	387
Other community and social services				276	171	574	306	189	213
Economic	3636	4306	6172	6807	8714	10748	9230	8606	10175
Other	285	1230	1360	1758	3629	3144	3549	4442	6234
Unclassified expenditures									60
TOTAL EXPENDITURE	9879	19904	21673	24520	30903	34822	32043	33399	39336
GOVERNMENT EXPENDITURES									
Expenditure on goods and services	4725	7298	9534	11508	13383	14777	16075	16688	19545
Interest payments	285	762	1360	1758	2924	3144	3549	4442	6234
Subsidies	2572	2020	2489	3611	4448	4981	4547	5026	5969
CURRENT EXPENDITURE	7582	10080	13384	16877	20755	22902	24171	26156	31748
CAPITAL EXPENDITURE	2297	9824	8290	7643	10148	11920	7872	7243	7588
TOTAL EXPENDITURE	9879	19904	21673	24520	30903	34822	32043	33399	39336
As a percentage of GDP	29.40178	40	34.93391	34.94868	40.26974	38.65245	33.85777	31.85711	32.96957

contd.

TOTAL EXPENDITURE AND										
LENDING LESS										
9816	19980	21842	24686	30975	35018	32196	33446	39637		
29,21428	40,15273	35,20631	35,18529	40,36356	38,87001	34,01944	31,90194	33,22185		
As a percentage of GDP										
TOTAL FINANCING										
REQUIREMENTS										
1348	7647	6039	7184	10557	10630	7680	6762	9424		
4,011904	15,36776	9,734042	10,23945	13,75684	11,79931	8,114961	6,449828	7,898751		
As a percentage of GDP										
SOURCES OF FINANCE										
Domestic:										
1163	2452	2025	3274	3441	4159	4390	1443	4918		
-333	70	181	120	197	-154	-11	142	306		
364	1418	715	2040	2469	1543	3382	1325	56		
462	400	604	881	1319	1040	3321	841	4444		
670	564	525	233	-544	1730	-2302	-865	112		
Other:										
489	8	208	180	-481	20	-72	-206	-17		
institutions										
181	531	225	-112	-151	1609	-2373	-591	31		
Nonfinancial private										
sector										
Nonfinancial public										
enterprise										
185	5195	4014	3910	7116	6471	3290	5319	4506		
53	215	485	301	205	255	836	1581	1812		
External:										
International development										
institutions										
132	4109	1920	2891	4082	6733	2394	3694	2663		
Foreign government										
Other										
	871	1609	718	2829	-517	60	44	31		

Table A-7
SIERRA LEONE (million leones, year ending 30 June)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	30.0	23.6	42.2	42.6	52.7	43.0	42.7	57.0	76.6		
Taxes payroll											
Manpower tax	0.3	0.8	0.8	0.6	0.8	0.9	0.7	0.6	0.7		
Domestic taxes on goods and services	13.4	19.7	28.5	31.0	44.9	42.0	38.3	48.0	68.5		
Taxation on international trade: Import duties	30.2	40.3	65.7	69.5	83.0	69.2	51.6	70.9	104.3		
Export duties	8.7	21.6	18.0	24.1	14.5	13.9	5.4	10.1	6.3		
Profits: Export and import marketing boards			0.5	0.5	0.5						
Other		0.3	0	0	0	0	0	0.9	0		
Exchange taxes						5.3					
Other taxes		3.2	2.5	2.3	2.5	1.0	4.4	6.1	2.1		
TOTAL TAX REVENUE	82.6	109.5	158.2	170.6	198.9	175.3	143.1	193.6	258.5		
NON-TAX REVENUE	9.1	9.9	15.7	19.2	21.7	3.2	12.6	12.7	15.4		
TOTAL CURRENT REVENUE	91.7	119.4	173.9	189.8	220.6	178.5	155.7	206.3	273.9		
CAPITAL REVENUE	0	0	0	0	0	3	0	22.6	12.3		
TOTAL REVENUE	91.7	119.4	173.9	189.8	220.6	181.5	155.7	228.9	286.2		
As a percentage of GDP	19.19213	16.04407	15.04976	14.68812	13.74883	9.674324	5.704341	8.427835	7.527617		

contd.

Table A-8
TANZANIA (million shillings, year ending 30 June)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	697	1377	1556	2407	2656	3245	3794	4109			
Taxes-payroll	20	19	18	20	20	21	20	22			
Manpower tax											
Taxation on property	2	49	68	41	47	57	49	66			
Domestic taxation on goods and services	1109	1836	2764	3024	4414	5137	6109	7969			
Taxation on international trade: Import duties	541	323	950	819	656	675	724	959			
Export duties	216	840	452	465	215	19	12	12			
Other tax on international trade	0	0	0	0	24	14	39	27			
Other taxes	15	26	27	55	22	14	133	316			
TOTAL TAX REVENUE	2600	4470	5835	6831	8054	9182	10880	13480			
NON TAX REVENUE	362	810	1020	577	339						
TOTAL CURRENT REVENUE	2962	5280	6855	7408	8393						
CAPITAL REVENUE	0	0	0	0	0						
Adjustment to cash - revenue			-615	-129	-117						
TOTAL REVENUE	2962	5280	6240	7279	8276						
As a percentage of GDP	18.51944	18.29014	17.19718	17.282391	16.85471						

contd.

TOTAL REVENUE AND GRANTS	3177	5906	7381	8539	10311				
As a percentage of GDP	19.86369	20.45863	20.34173	20.27399	20.99914				
GOVERNMENT EXPENDITURE BY FUNCTION									
General public services	504	1431	2589	2126	3080	5132	5369	6542	7884
Defence	494	910	3298	1110	1612	2308	2557	2744	3658
Education	543	1007	1574	1613	1738	2298	2543	2503	1919
Health	290	523	724	721	789	992	983	1171	1312
Social security and welfare	15	90	145	162	163	51	61	62	125
Housing	88	86	120	146	188	190	209	212	258
Other community and social services	74	169	228	277	176	381	385	440	589
Economic services	1814	2818	4337	5196	5273	5496	5211	5573	6367
Other	250	370	448	1080	856	1579	1971	2214	4442
Adjustment to cash basis			-707	-329	-779				
Adjustment transfer to extra-budget accounts	-82								
TOTAL EXPENDITURE	3990	7404	12756	12102	13096	18427	19289	21461	26554
GOVERNMENT EXPENDITURES									
Expenditure on goods and services	2303	4223	7188	6251	7454				
Interest payments	163	335	581	824	1009				
Subsidies	403	664	445	467	544				
Adjustment to cash basis			-707	-329	-779				
CURRENT EXPENDITURE	2869	5222	8214	7542	9007				
CAPITAL EXPENDITURE	1121	2182	5249	4889	4868				

contd.

Table A-9
TUNISIA (million dinars, year ending 31 December)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	55.9	87.0	125.4	162.2	203.0	242.9	250.9	277.8			
Social security contributions	29.1	56.1	98.1	102.9	116.8	146.9	154.7	178.7			
Taxes-payroll											
Manpower tax	0	0	4.5	6.3	6.2	6.1	20.9	21.5			
Taxation on property	8.6	15.6	19.7	25.9	26.2	34.2	39.0	43.2			
Domestic taxation on goods and services	100.6	176.3	243.0	264.5	310.6	344.3	394.6	449.6			
Taxation on international trade: Import duties	86.5	149.1	227.0	263.5	325.4	438.6	569.2	633.4			
Export duties	4.4	9.4	7.0	9.7	12.8	11.0	10.9	14.0			
Other taxes on international trade	0	0	0	0	0	0	0	0			
Exchange profits	0	0	0.1	0.1	0	0	0	0			
Other taxes	20.5	28.8	10.6	11.0	16.4	17.4	22.0	34.0			
Adjustment			-0.4								
TOTAL TAX REVENUE	305.6	522.3	735.0	846.1	1017.4	1241.4	1462.2	1652.2			
NON-TAX REVENUE	80.3	94.9	196.1	243.4	316.8	391.3	384.7	597.1			
Adjustment			8.0	19.0	-6.3	15.7		25.7			
TOTAL CURRENT REVENUE	385.9	617.2	939.1	1108.5	1327.9	1648.4	1846.9	2275.0			
CAPITAL REVENUE	2.2	9.2	2.1	0.7	0.8	0.9	1.1	1.1			
TOTAL REVENUE	388.1	626.4	941.2	1109.2	1328.7	1649.3	1848.0	2276.1			
As a percentage of GDP	25.41584	28.48567	32.01360	31.60113	31.92455	34.33180	33.61833	36.47596			

contd.

TOTAL REVENUE AND GRANTS	406.5	639.8	952.0	1131.2	1334.1	1657.7	1854.5	2285.4
As a percentage of GDP	26.62082	29.09504	32.38095	32.22792	32.05430	34.50666	33.73658	36.625
GOVERNMENT EXPENDITURE BY FUNCTION								
General public services	42.5	69.2	115.4	127.8	130.3	155.5	183.8	202.8
Defence	18.7	31.4	147.7	136.4	113.0	194.1	260.3	193.8
Education	90.6	164.2	173.2	190.5	206.9	252.6	310.0	349.2
Health	26.0	51.3	63.9	80.5	103.6	120.0	134.0	159.6
Social security and welfare	56.5	86.3	65.4	83.3	111.8	154.4	183.9	154.8
Housing	6.0	10.7	31.8	66.1	72.8	61.4	91.9	147.3
Other community and social services	47.4	75.2	35.2	35.8	33.9	43.9	54.5	65.2
Economic services	102.9	202.8	251.0	310.3	459.5	548.4	592.2	806.0
Other purposes	15.7	56.3	123.6	129.6	199.7	284.2	329.9	359.3
Adjustment	-10.2	-17.6	-13.6	-42.9	-78.1			
TOTAL EXPENDITURE	396.1	729.8	993.6	1117.4	1353.4	1814.5	2140.5	2438.0
GOVERNMENT EXPENDITURE								
Expenditure on goods and services	188.2	269.9	389.3	471.3	483.2	692.7	864.3	861.9
Interest payments	16.9	21.4	48.1	50.4	64.7	95.7	118.6	156.3
Subsidies	71.7	172.1	300.2	267.4	431.2	494.0	535.8	728.2
Adjustment			-9.4	-5.0	-69.2	-8.7	-4.7	-11.2
CURRENT EXPENDITURE	276.8	463.4	728.2	784.1	909.9	1273.7	1514.0	1735.2
CAPITAL EXPENDITURE	119.3	266.4	265.4	333.3	443.5	540.8	628.0	702.8
TOTAL EXPENDITURE	396.1	729.8	993.6	1117.4	1353.4	1814.5	2142.0	2438.0
As a percentage of GDP	25.93975	33.18781	33.79591	31.83475	32.51802	37.77060	38.96670	39.07051

contd.

TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	421.9	772	1091.6	1230.1	1439.6	1935.1	2313.3	2592.7
As a percentage of GDP	27.62933	35.10686	37.12925	35.04558	34.58913	40.28101	42.08295	41.54967
TOTAL FINANCING REQUIREMENTS	15.4	132.2	139.6	98.9	105.5	277.4	458.8	307.3
As a percentage of GDP	1.008513	6.011823	4.748299	2.817663	2.534839	5.774354	8.346370	4.924679
SOURCES OF FINANCE								
Domestic:	9.0	36.4	2.8	18.5	-3.2	81.2	174.7	160.5
Other general government	0	17.1	0	0	0	0	0	0
Monetary authority	8.3	-12.3	5.7	-34.5	-50.4	-20.6	-6.3	12.4
Deposit money banks	2.5	2.7	-21.5	26.2	58.9	64.3	50.6	73.5
Other:	-1.8	28.9	30.4	26.8	0.9	45.5	131.8	70.9
Financial institutions			12.9	13.1	7.8	62.7	131.5	70.8
Nonfinancial public enterprise	-1.8	28.9	12.3	3.3	-1.4	-1.4	-1.4	-1.4
Nonfinancial private sector			5.2	10.4	-5.5	-15.8	1.7	1.5
Adjustment			-11.8		-12.6	-8.0	-1.4	3.7
External:	6.4	95.8	136.8	80.4	108.7	196.2	284.1	146.8
International development institutions	3.1	4.2	10.1	31.8	43.0	37.1	47.2	62.0
Foreign government	4.7	38.0	48.6	25.1	58.4	82.4	91.8	78.1
Other	-1.4	53.6	78.1	35.7	7.3	76.7	145.1	6.7
Change in cash, deposits and negotiable securities	0	0	0	-12.2	0	0	0	0

Table A-10
UGANDA (million shillings)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	1.87	2.80	2.98	4.50	4.67	22.74	24.66	62.45	97.62	156.32	
Domestic taxation on goods and services	3.87	11.19	8.77	16.10	14.99	95.59	139.93	224.47	393.87	544.47	
Taxation on international trade: Import	1.66	2.13	2.96	3.73	5.29	51.69	63.98	93.24	142.93	176.40	
Export	3.10	15.19	9.58	13.20	1.12	67.59	160.57	412.03	960.90	1914.83	
Other taxes on international trade	0.02	0.03	0	0.44	0.32	2.79	13.13	13.48	24.92	50.58	
Exchange profits							114.97	78.31			
Other taxes	0.23	0.03	0	0.06	0.09	0.12	0.33	0.26	0.68	1.14	
TOTAL TAX REVENUE	10.75	31.37	24.29	38.03	26.48	240.52	517.57	884.24	1620.92	2843.74	
NON-TAX REVENUE	0.65	2.83	2.02	1.22	1.70	6.02	9.21	18.34			
TOTAL CURRENT REVENUE	11.40	34.20	26.31	39.25	28.18	246.54	526.78	902.58	1620.92	2843.74	
CAPITAL REVENUE						0.10					
TOTAL REVENUE	11.40	34.20	26.31	39.25	28.18	246.64	526.78	902.58	1620.92		
As a percentage of GDP	7.111665	7.041383	2.642096	2.903106	2.004124	8.222977	11.085567	13.92462	12.24130		
TOTAL REVENUE AND GRANTS	11.79	34.39	26.31	40.08	30.91	276.64	536.78	937.58	1668.92	3228.18	
As a percentage of GDP	7.354959	7.080502	2.642096	2.964497	2.198278	9.223177	11.29611	14.46458	12.60380	10.61328	

contd.

GOVERNMENT EXPENDITURE										
General public services	5.54	10.78	15.42	17.74	31.53	129.38	220.16	268.26	539.86	990.66
Defence	5.28	9.92	11.60	19.35	39.81	68.45	96.11	192.29	359.19	1204.43
Education	4.12	7.28	10.63	11.47	16.12	51.59	72.85	134.42	292.96	686.49
Health	1.16	3.8	3.16	3.91	7.51	17.86	25.79	29.08	79.68	109.17
Social security and welfare	1.10	1.42	1.03	0.73	1.85	5.32	8.04	18.11	35.72	96.73
Housing				2.48	3.71	7.67	6.88	14.08	26.61	35.06
Other community and social services	0.73	0.99	1.33	1.55	1.80	4.27	7.32	13.54	55.47	57.75
Economic services	3.92	7.77	10.77	8.54	18.41	50.05	53.56	98.93	243.76	675.48
Other	5.20	5.21	6.92	11.04	6.92	82.13	173.74	258.64	591.27	717.32
Unclassified							123.93		75.40	
TOTAL EXPENDITURE	27.05	47.17	60.86	76.81	127.66	416.72	664.45	1151.28	2299.92	4573.09
GOVERNMENT EXPENDITURES										
Expenditure on goods and services										
Interest payments										
Subsidies										
Unallocable										
CURRENT EXPENDITURE										
CAPITAL EXPENDITURE										
TOTAL EXPENDITURE										
TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	27.10	47.10	60.90	79.20	131.40	422.60	670.60	1158.80	2309.10	4573.10
	16.90580	9.697344	6.115685	5.857988	9.344996	14.08948	14.11224	17.87747	17.43848	15.03498
TOTAL FINANCING REQUIREMENTS										
	15.30	12.78	34.55	39.09	100.47	145.98	133.77	221.20	640.2	1344.91
	9.544603	2.631253	3.469572	2.891272	7.145295	4.866973	2.815084	3.412579	4.834836	4.421660

contd.

SOURCES OF FINANCE	38.98	100.16	147.86	120.07	229.22	496.07	866.51
Domestic:							
Other general government		96.44	73.75	172.09	-26.01	536.32	497.76
Monetary authority	18.97	2.33	63.19	-67.06	-5.18	2.55	
Deposit money banks	-0.17	1.39	10.92	15.04	260.41	-42.80	
Other:					5.03		
Other financial institutions					7.97		
Nonfinancial private sector					-55.80		
Nonfinancial public enterprise							
External:							
International development institutions	4.92	0.80	-0.86	14.71	-7.53	134.73	474.30
Foreign government	0.58						
Other	1.20						
Adjustment	0.84						
Change in cash, deposits and negotiable securities	-0.35	-0.49	-1.02	-1.01	-0.49	9.40	4.10

Table A-11
ZAIRE (million zaires, year ending 31 December)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	112.8	257.9	608.4	1153.3	1692.4	2063.2	3502.6	7857.5	11428.2		
Social security contributions	10.0	17.6	29.3	75.1	80.6	103.9	125.6	235.2	313.6		
Taxes-payroll	3.2	14.0	54.0	80.0	61.8	77.8	138.9	479.5	412.7		
Manpower tax											
Taxation on property	2.5	2.9	4.5	2.8	4.4	2.9	11.8	7.1	13.4		
Domestic taxation on goods and services	48.1	101.2	254.7	470.9	741.5	1417.3	2799.5	6493.5	8216.5		
Taxation on international trade: Import duties	113.1	121.5	334.7	776.6	1205.8	1348.8	2110.2	4040.1	11383.7		
Export duties	213.2	132.6	513.1	680.8	252.5	236.3	1189.9	4353.2	4520.2		
Other:	0.4	0.3	0.9	2.1	1.5	3.1	4.3	6.5	15.4		
Other taxes	12.3	28.0	109.5	103.4	109.2	331.3	241.3	394.9	246.0		
TOTAL TAX REVENUE	515.6	676.0	1909.1	3345.0	4149.7	5584.6	10124.1	23867.5	36549.7		
NON-TAX REVENUE	18.5	12.1	71.2	453.1	594.6	594.6	1337.3	3013.9	6169.6		
TOTAL CURRENT REVENUE	534.1	688.1	1980.3	3798.1	4744.3	6179.2	11461.4	26881.4	42719.3		
CAPITAL REVENUE											
TOTAL REVENUE	534.1	688.1	1980.3	3798.1	4744.3	6179.2	11461.4	26881.4	42719.3		
As a percentage of GDP	29.07457	17.39383	17.83250	22.10382	19.94996	19.86242	19.38208	26.95606	29.00884		

contd.

TOTAL REVENUE AND GRANTS	588.1	829.6	2456	4650	5905.1	7183.1	13883.6	33503.1	51728.5
As a percentage of GDP	32.01415	20.97067	22.11616	27.06163	24.83116	23.08936	23.47820	33.59616	35.12661
GOVERNMENT EXPENDITURE BY FUNCTION									
General public services	255.6	236.6	537.2	912.2	1314.4	2351.7	5318.6	5583.5	
Defence	94.8	138.2	329.9	424.7	314.1	844.7	1928	2013	
Education	88.3	193.2	551.0	940.3	1632.4	1741.5	309.9	208.0	
Health	14.8	51.3	96.6	122.9	210.5	341.6	685.5	374.6	
Social security and welfare	10.0	23.8	42.9	39.2	57.9	41.0	223.0	165.0	
Housing									
Other community and social services	18.9	37.5	47.7	75.8	108.7	223.9	106.4	318.1	
Economic services	244.2	244.9	402.8	657.6	1294.3	1794.4	1990.5	2439.6	
Other	129.6	352.8	992.7	1807.2	3130.6	3306.9			
TOTAL EXPENDITURE	856.2	1278.3	3000.8	4979.9	8062.9	10645.7	15536.6		
GOVERNMENT EXPENDITURES									
Expenditure on goods and services	426.0	800.7	2010.9	3245.7	4465.4	6090.2	8825.9		
Interest payments	32.6	107.0	259.9	375.8	898.5	1220.8	1959.4		
Subsidies	59.5	95.1	246.0	382.7	419.5	931.4	1606.1		
CURRENT EXPENDITURE	518.1	1002.8	2516.8	4004.2	5783.4	8242.4	13401.0		
CAPITAL EXPENDITURE	338.1	275.5	484.0	975.7	2279.5	2403.3	3145.2		
TOTAL EXPENDITURE	856.2	1278.3	3000.8	4979.9	8062.9	10645.7	16546.2		
As a percentage of GDP	46.60860	32.31294	27.02206	28.98155	33.90479	34.21954	27.98085		

contid.

TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	912.4	1279.2	3004.6	4981.6	8062.9	10667.1	15536.6
As a percentage of GDP	49.66793	32.33569	27.05628	28.99144	33.90479	34.28833	26.27354
TOTAL FINANCING REQUIREMENTS	324.3	449.6	548.6	331.6	2157.8	3484.0	1653.0
As a percentage of GDP	17.65378	11.36501	4.940117	1.929814	9.073630	11.19897	2.795346
SOURCES OF FINANCE							
Domestic:	205.8	292.4	484.9	205.5	1435.5	3207.7	2520.2
Monetary authority	193.7	299.8	477.9	235.7	1458.4	3246.8	2561.6
Deposit money banks	13.7	-3.9	7	2.6	-0.1	-0.1	-0.1
Other	-1.1	-3.5		-32.8	-22.8	-39.0	-41.3
Other financial institutions	-1.1	-3.5		-32.8	-22.8	-39.0	-41.3
External	118.5	157.2	63.7	126.1	722.3	276.3	-867.2

Table A-12
ZAMBIA (million kwacha, year ending 31 December)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains	398.7	185.0	194.1	291.7	284.4	273.9	352.9	321.8	438.5		
Taxes-payroll		13.4	19.3	20.9	24.2	21.0	15.8	12.8	15.3		
Manpower tax		0.3	0.1	0.4	0.3	0.4	0.4	2.2	3.2		
Taxation on property											
Domestic taxation on goods and services	113.0	215.1	276.5	329.8	377.5	401.8	484.9	500.5	620.5		
Taxation on international trade: Import duties	38.3	32.3	44.8	63.5	61.7	72.4	49.4	83.0	201.8		
Export duties	0	0	0	0	0	0	53.4	94.5	129.5		
Other	1.5	1.5	0.8	0.1	0.6	1.1	0.5	0.6	17.0		
Exchange taxes											
Other taxes	0.6	0.3	4.0	2.6	2.4	5.6	1.3	2.0	1.3		
TOTAL TAX REVENUE	550.6	447.9	539.6	709.0	751.1	776.2	958.6	1017.4	1427.1		
NON-TAX REVENUE	97.4	50.4	54.6	56.1	56.0	63.7	54.3	72.0	115.6		
CURRENT REVENUE	648.0	498.3	594.2	765.1	807.1	839.9	1012.9	1089.4	1542.7		
CAPITAL REVENUE	1.1						0.6	1.1	14.7		
TOTAL REVENUE	649.1	498.3	594.2	765.1	807.1	839.9	1013.5	1090.5	1557.4		
As a percentage of GDP	34.38029	25.09063	22.33834	24.97062	23.15925	23.36300	24.24061	22.11518	22.02205		

contd.

TOTAL REVENUE AND GRANTS	650.0	532.1	620.0	790.7	831.1	869.0	1067.2	1113.5	1577.1
As a percentage of GDP	34.42796	26.7925423	30827	25.80613	23.84791	24.17246	25.52499	2.58162	22.30062
GOVERNMENT EXPENDITURE BY FUNCTION									
General public services including defence	204.7	219.1	265.4	406.7	606.8	553.0	607.1	578.3	
Education	100.5	117.5	117.8	129.1	151.6	212.8	195.1	231.1	
Health	29.3	51.2	55.9	68.7	77.3	117.6	88.7	104.3	
Social security and welfare	6.2	19.3	20.1	21.5	27.9	29.8	30.8	37.4	
Housing	0.3	11.6	14.1	17.3	5.2	28.6	0.6	0.6	
Other community and social services	6.5	8.5	11.8	19.7	29.3	29.7	24.3	32.2	
Economic services	128.9	206.8	234.2	369.6	280.4	334.9	199.1	231.4	
Other	54.9	72.2	90.2	102.6	99.2	102.7	184.4	164.1	
Unallocable capital expenditure							16.2	61.8	435.4
TOTAL EXPENDITURE	531.3	706.2	809.5	1135.2	1277.7	1409.1	1346.3	1441.2	2466
GOVERNMENT EXPENDITURES									
Expenditure on goods and services	307.3	396.9	463.2	622.5	852.6	832.7	543.2	743.0	1011.4
Interest payments	35.7	72.2	90.2	102.6	99.2	102.7	184.4	53.5	288.6
Subsidies	72.0	117.3	166.8	287.0	190.3	286.1			
Unallocable	3.5								
CURRENT EXPENDITURE	418.5	586.4	720.2	1012.1	1142.1	1221.5	1176.6	1258.2	1849.9
CAPITAL EXPENDITURE	112.8	119.8	89.3	123.1	135.6	187.6	169.7	183.0	616.1
TOTAL EXPENDITURE	531.3	706.2	809.5	1135.2	1277.7	1409.1	1346.3	1441.2	2466.0
As a percentage of GDP	28.14088	35.55891	30.43233	37.04960	36.66284	39.19610	32.20043	29.22733	34.86990

contd.

Table A-13

ZIMBABWE (million dollars, year ending 30 June beginning 1985; year ending 31 December through 1984)

Year	1974	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987
GOVERNMENT REVENUES											
Taxation on income, profits and capital gains		283.6	280.3	382.7	538.6	706.7	782.7	855.5	904.3		
Taxation on property		1.5	1.6	2.8	1.9	4.0	5.7	8.4	7.8		
Domestic taxation on goods and services		161.2	198.3	231.6	344.4	475.1	594.4	648.2	646.1		
Taxation on international trade: Import		23.5	21.6	36.5	102.9	168.3	279.1	301.1	321.0		
Export											
Other											
Exchange taxes		3.4	4.6	7.5	11.3	10.4	12.0	14.6	14.7		
Other taxes											
TOTAL TAX REVENUE		473.2	506.4	661.1	999.1	1364.5	1673.9	1827.8	1903.5		
NON TAX REVENUE		101.9	104.4	167.6	129.3	148.6	191.9	205.2	210.4		
TOTAL CURRENT REVENUE		575.1	610.8	828.7	1128.4	1513.1	1865.8	2033.0	2113.9		
CAPITAL REVENUE		0.6	0.6	0.9	1.1	0.4	0.6	0.8	17.0		
TOTAL REVENUE		575.7	611.4	829.6	1129.5	1513.5	1866.4	2033.8	2130.9	2532.4	
As a percentage of GDP		26.19199	21.36268	24.10927	25.44492	29.33139	30.43705	30.37335	26.31065	27.41582	
TOTAL REVENUE AND GRANTS		575.7	611.4	829.6	1131.1	31.6	89.5	2110.3	2294.0	2651.9	
As a percentage of GDP		26.19199	21.36268	24.10927	25.48096	29.68217	30.81376	31.51583	28.32448	28.70953	

contd.

GOVERNMENT EXPENDITURE
BY FUNCTION

General public services	150.1	214.5	212.0	200.6	222.7	243.4	293.9	294.9
Defence	135.1	185.9	300.1	267.3	324.8	381.2	413.1	397.8
Education	85.6	112.3	185.9	260.8	411.7	446.6	518.9	546
Health	38.9	52.3	64.8	92.7	121.1	127.8	157.0	161.9
Social security and welfare	37.4	65	86.9	87	96.6	132.5	109.4	111.9
Housing	4.9	5.0	6.0	14.1	29.3	30.1	11.7	11.1
Other community and social services	4.0	4.4	5.5	12.7	31.4	31.8	51.4	47.6
Economic services	172.9	167.7	216.9	261.3	455.3	433.4	662.0	681.3
Other	44.6	73.9	120.2	104.8	189.3	251.8	328.1	364.7
TOTAL EXPENDITURE	673.5	881.0	1198.3	1301.3	1882.2	2078.6	2545.5	2617.2

3095.9

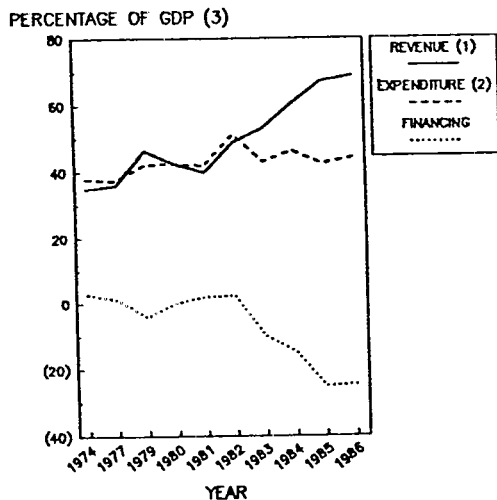
GOVERNMENT EXPENDITURES

Expenditure on goods and services	377.7	510.2	666.4	678.8	864.4	986.3	1132.0	1110.5
Interest payments	39.8	62.1	81.5	118.0	172.4	222.3	287.9	340.5
Subsidies	204.0	262.8	389.0	436.9	678.8	697.2	944.9	961.6
Unallocable								
CURRENT EXPENDITURE	621.5	835.1	1136.9	1233.7	1715.6	1905.8	2364.8	2412.6
CAPITAL EXPENDITURE	52.0	45.9	61.4	67.6	166.6	172.8	180.7	204.6
TOTAL EXPENDITURE	673.5	881.0	1198.3	1301.3	1882.2	2078.6	2545.5	2617.2
As a percentage of GDP	30.64149	30.78266	34.82417	29.31516	36.47674	33.89758	38.01523	32.31510
TOTAL EXPENDITURE AND LENDING LESS REPAYMENTS	671.1	904.8	1205.6	1392.7	2076.9	2283.2	2757.7	2895.8
As a percentage of GDP	30.53230	31.61425	35.03632	31.37418	40.25	37.23418	41.18428	35.75503

contd.

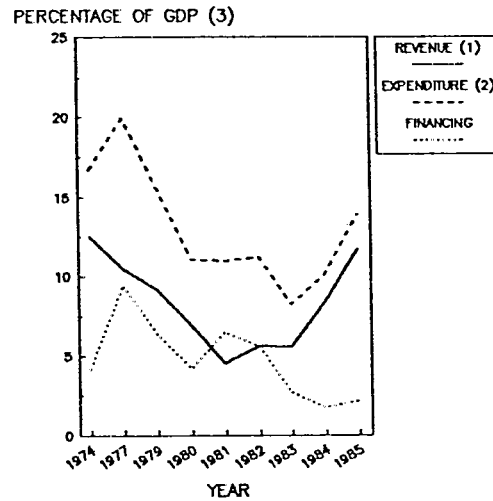
Figure A. Deficit trends in selected African countries

BOTSWANA



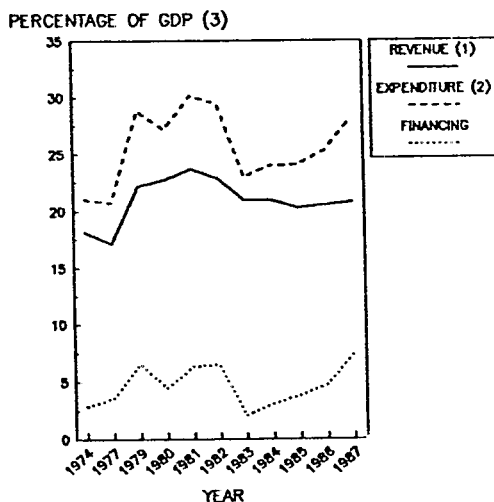
- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

GHANA



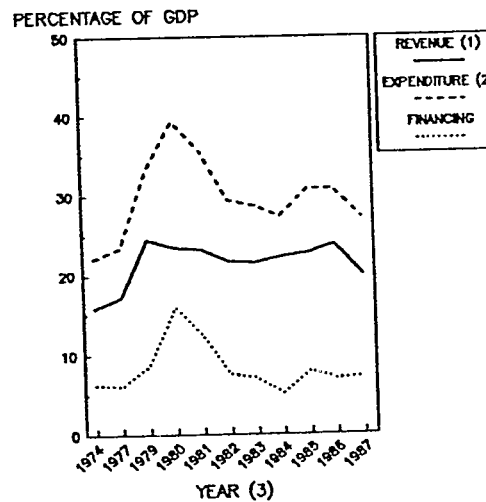
- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

KENYA



- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

MALAWI

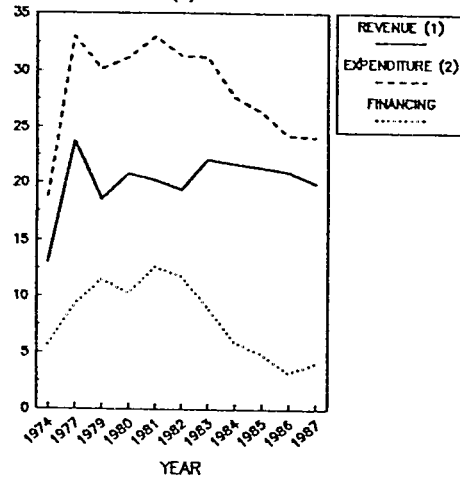


- (1) Revenue plus grants
 - (2) Expenditure and lending less repayments
 - (3) Nominal.
- 1986 and 1987 data still provisional

Figure A. continued

MAURITIUS

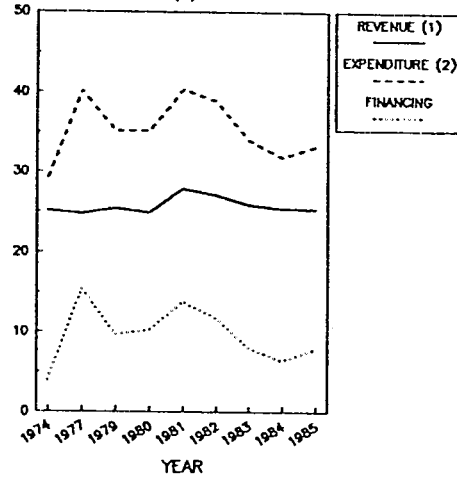
PERCENTAGE OF GDP (3)



- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

MOROCCO

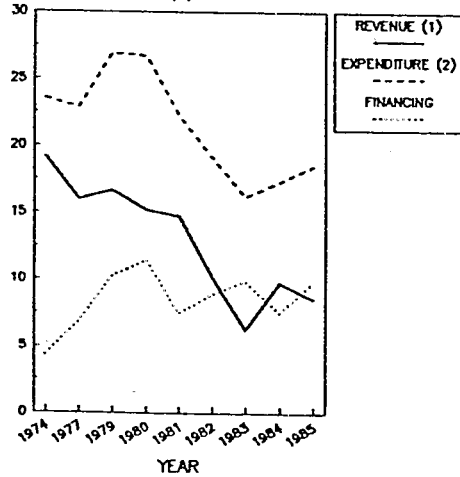
PERCENTAGE OF GDP (3)



- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

SIERRA LEONE

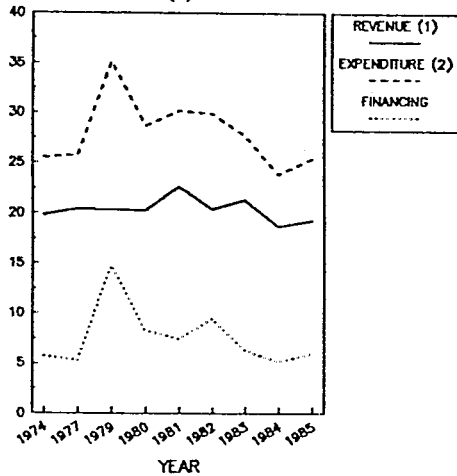
PERCENTAGE OF GDP (3)



- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

TANZANIA

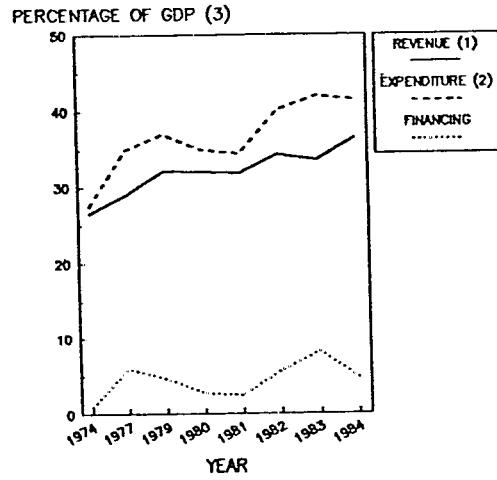
PERCENTAGE OF GDP (3)



- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

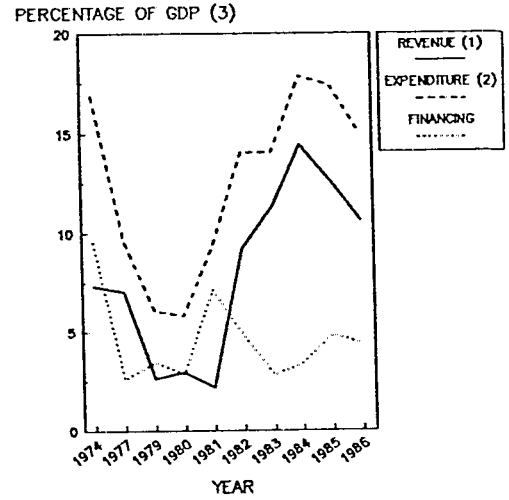
Figure A. continued

TUNISIA



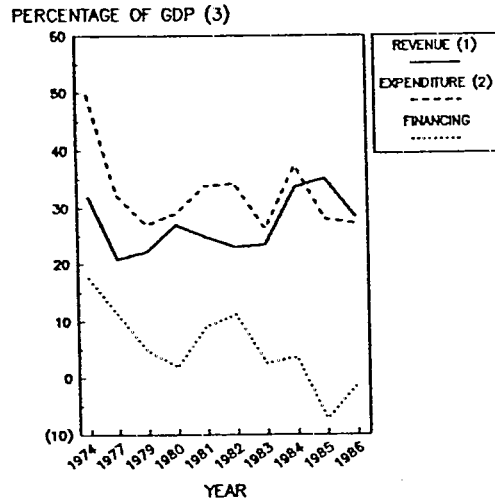
(1) Revenue plus grants
 (2) Expenditure and lending less repayments
 (3) Nominal

UGANDA



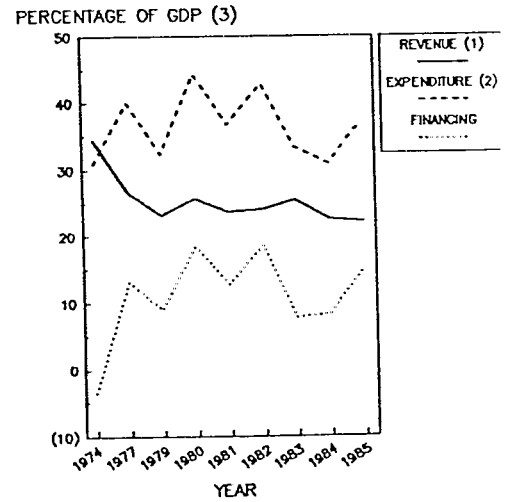
(1) Revenue plus grants
 (2) Expenditure and lending less repayments
 (3) Nominal
 1985 and 1986 data still provisional

ZAIRE



(1) Revenue plus grants
 (2) Expenditure and lending less repayments
 (3) Nominal

ZAMBIA

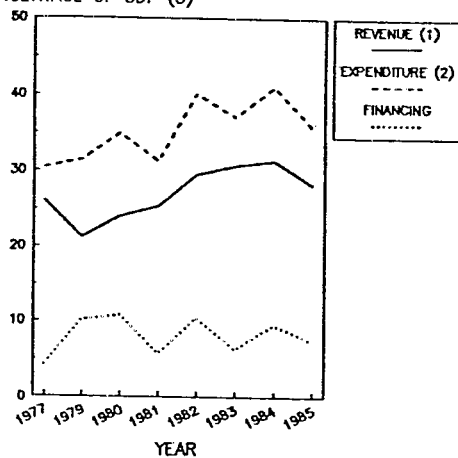


(1) Revenue plus grants
 (2) Expenditure and lending less repayments
 (3) Nominal

Figure A. continued

ZIMBABWE

PERCENTAGE OF GDP (3)



- (1) Revenue plus grants
- (2) Expenditure and lending less repayments
- (3) Nominal

Research issues

1. Undertake in-depth calculations of the manner in which various exogenous factors have impacted on fiscal deficits in particular countries. How do the magnitudes compare with those coming from more controllable influences? See also issues in Section V.
2. Numerically assess the recurrent and capital transfers visibly made from the governments of individual countries to their state enterprises. Then attempt to construct the orders of magnitude of the immediate or longer term fiscal burden associated with the less transparent forms of government support to the enterprises. Evaluate the social rate of return of the total of these forms of assistance.
3. Assess the magnitude of the rediscounts and guarantees made available by central banks in individual countries and analyse the main reasons for these. How well were they integrated with the main budgetary objectives of the government?
4. Try to assess the true magnitude of the budgetary dependence on external financing of individual countries, taking account not only of the government's direct borrowing but also of the indirect responsibilities for private debt which some governments have taken on. What has been the evolving structure and cost of this dependence?
5. Describe the range of controls on interest rates maintained by individual governments, and assess the adequacy of the rates offered on the main classes of government paper, relative both to prevailing and expected inflation rates and to the alternatives which larger domestic savers are *actually* using, e.g. capital flight and investment in real assets such as land.
6. Possibly on a survey basis, estimate the proportions of government domestic "expenditures" of the last few years which have not actually been paid to suppliers. Examine the various ways in which these non-payments arise and how they relate to the government's mechanisms for expenditure control. Assess also the types of economic responses of the main suppliers to the arrears of payment.
7. Compute the magnitudes of the five methods of financing just described and identify any emerging trends in their relative importance. How important are they in particular countries relative to external borrowing and the use of the inflation tax?
8. For many African countries research is certainly needed regarding the magnitude of the relevant elasticities and so the degree of diversion of private-sector financing associated with any given increase in public-sector deficits. Try to assess the

applicability of econometric methods for estimating these elasticities in particular countries, as well as the possible alternative approaches which could be used. On the basis of elasticity estimates, assess the relative magnitude of the direct and indirect effects of a unit increase in the deficit on external borrowing.

9. Estimate the parameters of the money-demand equation for individual countries and/or evaluate the money-demand equations which have already been estimated. Using these, calculate the maximum revenue which the governments can realistically expect to collect from the inflation tax, as well as the sensitivity of these amounts to slight changes in key parameters. Assess these results against actual and prospective inflation rates and evaluate the magnitude of revenue losses which would be associated with reduced inflation.
10. Assess the shape of the supply curve of foreign finance for individual countries in so far as this is identifiable from the experiences of recent years. How has this changed in the 1980s as compared to the 1970s, and at what annual volume of gross transfers does the flat portion represented by access to concessional funding end? How does this relate in amounts to the financing needs of the government?
11. Evaluate the evidence regarding capital flight from individual countries, and assess the extent to which this might be explained in terms of arguments of the Ricardian equivalence type.
12. Implement a model of the Mathieson and McKinnon (1981) type for particular countries and assess the shape of the trade-off between reserve requirements and inflation for a particular level of the government deficit.
13. Implement a Fry-style model for particular countries and assess both the limits of government deficits which are consistent with different targeted inflation rates, and the way in which these limits can be redefined if controls on interest rates are relaxed.
14. What is the shape of the trade-off between inflation and the current account in particular countries? On the basis of some of the earlier research questions which have been posed, do the assumptions in the Corden paper necessary to generate that trade-off seem to be applicable in particular African countries?
15. By reference to detailed work within individual banks, assess the true level of non-performing and bad loans in the banks, and how these compare with the capital of those same banks. Assess the main causes of the build-up of the bad debt portfolio and use this to identify the changes in economic policies and in bank management necessary to prevent a further major build-up of the problem. Do the factors that affect the domestic banks have any overlap with causes of non-payment of external loans?
16. (This Research Issue continues the previous one.) Identify and quantify the various ways in which the authorities, the banks and others involved have responded to bad debts in the banking system and calculate both the transparent effect of such responses on government deficits, and some of the other less direct ways in which they have inflated government financial requirements (e.g. through

extensive use of rediscounting).

17. Examine the micro-level behaviour of the banks in particular countries where the problem of bad debts is severe. How far do the portfolio choices of the banks depart from what might be construed as "sound" behaviour, and what main elements within the decision-making process in banks can be shown to account for this?
18. Recalibrate the Mathieson and McKinnon (1981) model referred to in the previous section to assess the magnitude of this particular problem *vis à vis* that arising from reserve requirements.
19. Review the literature on solutions to financial sector distress which is available in relation to other parts of the world. Assess which aspects of established "good practice" would and would not be applicable in particular African countries.
20. A careful accounting study for selected countries of the extent to which the government is a buyer and/or a beneficiary of the sales of tradeable goods. This should reveal the balance of advantage for the government itself from devaluation and also suggest policy reforms which could make a government's vested interest in avoiding devaluations less acute.
21. A major project on this set of issues in several African countries designed to identify possible general propositions for the continent.
22. Build on the work already suggested in Section II to provide a full documentation of the various ways in which particular African governments have intervened to repress financial-sector development. Assess the extent to which this can be traced to the need to finance public deficits at low cost.
23. Assemble quantitative evidence on the various components of credit demand which would materialize if interest rates were freed and nominal rates moved to higher levels. On the basis of the present expenditure and taxation policies of particular governments, what would be the cost of these higher interest rates from the viewpoint of the size of the deficits to be financed? What would the further consequences be, for example, on inflation?

References

- Aghevli, B.B. and Khan M.S. 1977 "Inflationary finance and the dynamics of inflation: Indonesia, 1951-72." *American Economic Review*: June.
- Balassa, B. 1988. "Public finance and economic development." PPR Working Paper. Washington: World Bank.
- Corden, M. 1988. "Macroeconomic adjustment in developing countries." IMF Working Paper, WP/88/13; February.
- Courakis, A.S. 1988. "Constraints on bank choices and financial repression in less developed countries." *Oxford Bulletin of Economics and Statistics* (November).
- de Juan, A. 1988. "The management of situations of illiquidity and insolvency in the banking sector." Paper to EDI Conference on Financial Systems and Policies, Punta del Este, Uruguay, December 1988.
- Easterly, W.R. 1988. "Fiscal adjustment and deficit financing during the debt crisis." World Bank (mimeo); November.
- Fry, M.J. 1988. "Managing deficit finance." Paper to EDI Conference on Financial Systems and Policies, Punta del Este, Uruguay, December 1988.
- Galbis, V. 1976. "Structuralism and financial liberalisation." *Finance and Development*. Washington D.C. (June), pp. 33-37.
- 1977. "Financial intermediation and economic growth in LDCs: A theoretical approach." *Journal of Development Studies* (January).
- Hansen, J. and de Melo, J. 1983. "The Uruguayan experience with liberalisation and stabilisation: 1974-81." *Journal Of Inter-American and World Affairs*.
- Hansen J. and Neal, C. 1984. *A Review of Interest Rate Policies in Selected Developing Countries, 1970-82*. World Bank Report, No.5391; December.
- Hinds, M, 1988. "Economic effects of financial crises." PPR Working Paper. Washington: IBRD.
- IBRD and UNDP. 1989. *Africa's Adjustment and Growth in the 1980s*. Washington: IBRD.
- IMF. 1988. *World Economic Outlook* (April). Washington: IMF.
- Long, M. 1987. "Crisis in the financial sector." Paper to EDI Conference on Managing Financial Adjustment, Istanbul, Turkey, July 1987.
- Mathieson, D.J. and McKinnon, R. 1981. *How to Manage a Repressed Economy*. International Finance Section, Department of Economics, Princeton University.

- McKinnon, R. 1973. *Money and Capital in Economic Development*. Washington: Brookings Institute.
- Nelson, J. 1983. "The political economy of stabilisation in small, low-income trade dependent economies." New York: USAID (mimeo).
- Nuti, M. 1988. "Trade regimes, external adjustment and industrialisation: Hungary, Poland and Yugoslavia." Paper to EDI Conference on Trade Reform and External Adjustment in European Countries, Laxenburg, Austria, June 1988.
- Popiel, P. 1987. "Development of money and capital markets." Paper to EDI Conference on Managing Financial Adjustment, Istanbul, Turkey, July 1987.
- Roe, A.R. 1988. "The financial sector in stabilisation programmes." Development Economics Research Centre Paper No. 77, University of Warwick; March 1988.
- Roe, A.R. and Popiel, P. 1988. "Managing financial adjustment in middle-income countries. E.D.I." Seminar Policy Report No.11. Washington, D.C.: World Bank, December.
- Sachs, J.D. 1986. "Managing the LDC debt crisis." Brookings Papers on Economic Activity. Washington, D.C.: Brookings Institute.
- Shen, A. 1988. "Financial adjustment in a period of disinflation." Paper to EDI Conference on Financial Systems and Policies, Punte del Este, Uruguay, December 1988.
- Shaw, E.S. 1973. *Financial Deepening in Economic Development*. New York: Oxford University Press.
- Tanzi, V. 1988. "The impact of macroeconomic policies on the level of taxation (and on the fiscal balance) in developing countries." IMF Working Paper 88/95, October. Washington: IMF.
- Thirlwall, A.P. 1974. *Inflation, Saving and Growth in Developing Economies*. London: Macmillan.
- Van Agtmael, 1984. *Emerging Securities Markets*. Euromoney Publications.
- Van Wijnbergen, S. 1988. "External debt, inflation and the public sector: Towards fiscal policy for sustainable growth." Paper to EDI Seminar on Adjustment Policies, Izmir, Turkey, March 1988.
- World Bank and UNDP. 1989. *Africa's Adjustment and Growth in the 1980s*. Washington: World Bank.

Notes

1. An important exception to this general tendency is Ghana where civil-service reform needed both a retrenchment of staff and a major rise in wage rates to redress the situation that found a majority of civil servants in 1983 needing to spend up to eight times their official salaries to provide a basic consumption basket for their families.
2. These are Angola, Cameroon, Congo, Gabon and Nigeria.
3. Non-grant revenues in SSA declined from 20.5 percent of GDP in 1980–1983 to 19.6 percent of GDP by 1987.
4. However, it should be noted that since 1980 only 12 SSA countries have regularly serviced their debts, and that between 1980 and 1988, 25 SSA countries rescheduled their debts with creditors a total of 99 times.
5. Although negative real rates have occurred in some years.
6. These issues are discussed at some length in the context of a formal model in Mathieson and McKinnon, 1981.
7. An interesting example in Uganda in the early 1970s involved a major brewing company refusing to pay its duties on the grounds that the government had failed to pay for the beer supplied to the army.
8. Here interpreted as direct sales of government securities to the central bank.
9. Estimate the parameters of the money-demand equation for individual countries and/or evaluate the money-demand equations which have already been estimated. Using these, calculate the maximum revenue which the governments can realistically expect to collect from the inflation tax, as well as the sensitivity of these amounts to slight changes in key parameters. Assess these results against actual and prospective inflation rates and evaluate the magnitude of revenue losses which would be associated with reduced inflation. This is argued more fully in Aghevli and Khan, 1977, and more recently in Tanzi, 1988.
10. Interest-rate ceilings, for example, serve both to keep down the apparent cost of the government's own borrowing and to reduce the attractiveness of private-sector assets in portfolios relative to the debt of the government.
11. For example, in a very repressed economy where the money:GDP ratio was only about 15 percent—a not uncommonly low figure in Africa—a deficit at the present African average of about 8 percent of GDP would probably imply

inflation at a rate of about 50 percent if the deficit was financed entirely on an inflationary basis.

12. By the end of 1988, this had benefited just five low-income African countries.
13. Presumably, most debtor and creditor countries aspire to restore a situation whereby a significant part of external transfers can be made on something close to market terms. Long-term dependence on large concessional funds is an uncomfortable prospect.
14. A good example of this was in Ghana in the mid-1960s when the NLC government's adjustment policies were widely criticized for failing to repudiate the debts built up by the previous Nkrumah regime (see Nelson, 1983).
15. The obvious negative incentive effect coming from debt forgiveness is that associated with moral hazard.
16. In the numerical example referred to earlier, both rates were set at 25 percent.
17. A more sophisticated model which covers much of the same ground is in Easterly, 1988.
18. The presumption of his paper is that the *rate* of inflation will increase to generate this result. However, this presupposes that the economy is still operating in a range where a higher rate of the tax can, indeed, generate enlarged revenues (i.e. it is not too severely financially repressed).
19. The analysis here does not explicitly discuss the fact that government financing using securities which carry a "realistic" interest rate can have major consequences for the size of the fiscal deficit when inflationary expectations and nominal interest rates are high. Lower inflation in these circumstances can lower the nominal deficit itself and not merely amend the methods of financing.
20. Data in World Bank and UNDP, 1989, show that in 13 African countries undertaking reform in the 1980s, the total number of public enterprises liquidated was only 78, with 52 more under way. No information is available regarding the size of these.
21. For example, the understatement of bad debts which distorts the balance sheet of banks or the booking of interest on those debts which distorts the operating account.
22. See, for example, Ricardo Pascale, Opening Address to EDI Conference on Financial Systems and Policies, Punta del Este, Uruguay, December 1988.
23. Casual evidence suggests that the number of actual bank failures in Africa in recent years has been small.
24. This point, and the discussion in the earlier part of the paper, suggest that a government's deficit in present circumstances in Africa might be represented as having three main components, namely (i) the "normal" deficit associated with the normal level of provision of government services, (ii) the crisis element associated with bailouts of, and supports to, financially distressed companies and banks, and (iii) the adjustment element, being the extra fiscal burden of adjustment programmes.
25. It can be noted that governments which control, for example, petroleum and food imports can avoid the *fiscal* consequences of devaluation by passing the

- higher costs through to consumers. The decision as to whether or not to do this is essentially a decision about whether the reduced real incomes associated with adjustment in the short term should fall on users of specific products or on the taxpayer more generally. The soft option is to choose the latter approach.
26. This proposition has recently been argued in relation to the caution about the active use of the exchange rate in Eastern Europe; see Nuti, 1988.
 27. Hansen and Neal, 1984, provide several examples of this from Africa and elsewhere. For example, nominal interest rates in Nigeria in the period 1970–1982 ranged from 4 to 6 at the same time as inflation moved as high as 70 percent.
 28. The Southern Cone reforms of the late 1970s provide the most dramatic illustrations of this point; see also Roe, 1988.
 29. That is, companies for which the real rate of return was temporarily below the real rate of interest. This is a phenomenon which was widely observed in the latter stages of the Southern Cone reforms; see Hansen and de Melo, 1983.
 30. A related point is the exchange rate at which remittances from overseas migrant workers can be brought into the country. If these payments attract the less favourable (i.e. overvalued) exchange rate, as in Sudan, then the incentive for them to come, if at all, through parallel underground markets, will be strong.
 31. Of course, the issue in repressed financial markets is not so much the total size of domestic savings as the part of this which is placed in financial instruments which the government could possibly tap, rather than in inflation hedges and in foreign banks. While deficits are high, the nominal interest rates which would have to be paid to divert substantially more domestic savings into domestic financial instruments would normally be prohibitively high.
 32. A form of triple jeopardy in taxation of profits is not uncommon in developing country tax systems, i.e. (i) taxation of corporate profits, (ii) taxation of dividend distributions, and (iii) taxation of incomes in the hand of private shareholders.