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PUBLIC DEBT AND MACROECONOMIC MANAGEMENT IN SUB-SAHARAN AFRICA

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I. INTRODUCTION

This paper analyses the nature of public debt in Africa. It explores differences between external and domestic public debt, the factors that contribute to their accumulation, and associated problems that arise from the opening up of the capital account and the removal of impediments to asset substitution. The paper focuses on the problems that government debt causes in macroeconomic management, including policies on exchange rates and interest rates, and the impact of debt on an economy's vulnerability to external shocks. One important factor in public debt accumulation that receives some attention in the paper is the shift from central bank financing of public deficits to financing via private markets, including the question of whether this shift has brought about greater fiscal discipline and better monetary control as intended.

The analysis is undertaken for sub-Saharan Africa (SSA) in general, with examples drawn from a group of 10 African countries: Cameroon, Côte d'Ivoire, Ghana, Kenya, Malawi, Nigeria, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe, from the mid-1980s to the late-1990s. Except for Kenya and Zimbabwe, which the World Bank

classifies as moderately externally indebted, the remaining eight countries are classified as severely externally indebted countries (World Bank, 1999).

The remainder of the paper is organized as follows. Section II describes the public debt problem in SSA. Section III discusses the linkages between external and domestic debt as well as the factors that contribute to their accumulation. Section IV analyses the financing of budget deficits, and Section V presents the limitations and trade-offs of the various financing methods in SSA. Section VI discusses the implications of public debt for macroeconomic management and monetary policy in SSA, and section VII concludes.¹

II. THE DEBT PROBLEM IN SUB-SAHARAN AFRICA

A. External debt

External debt imposes a heavy burden in much of SSA. Table 1 shows SSA's external indebtedness in both current US dollars and in relation to gross national product (GNP) and exports. Africa's debt about doubled, from US\$ 107 billion in 1985 to US\$ 226 billion in 1998. Relative to the size of the regional economy, external debt increased from 56.3 per cent of GNP in 1985 to 68.3 per cent of GNP in 1998. Relative to the region's debt servicing capacity, it increased from 171.0 per cent of exports in 1985 to 232.1 per cent in 1998. The table shows that the external debt burden reached a peak in 1993–1994, with some welcome decline thereafter. This was partly due to improved growth, leading to an improvement in the standard debt indicators. After nearly two decades of poor performance there has been some recovery in Africa since the mid-1990s. However, the recovery has been hesitant, weak and patchy. The improvement in the external debt indicators in the second half of the 1990s may also be explained by provisions of debt relief, for example, under Paris Club debt reschedulings, some commercial debt buy-backs, and the more recent Heavily Indebted Poor Countries (HIPC) Debt Initiative of the World Bank and International Monetary Fund (IMF). The overall decline in aid levels

Table 1
SUB-SAHARAN AFRICA: EXTERNAL DEBT AND SERVICING, 1985–1998

Year	Total debt stocks (\$ billion)	Total debt/ GNP (Per cent)	Total debt / exports of goods and services (Per cent)	External debt service ratio (Per cent)	Arrears: principal and interest (\$ billion)	Principal rescheduled (\$ billion)
1985	107.3	56.3	171.0	17.5	10.7	1.6
1986	121.0	58.0	213.5	17.2	8.2	3.2
1987	148.1	62.4	226.2	13.5	12.2	4.5
1988	150.6	60.9	220.7	14.8	19.6	1.5
1989	157.4	62.7	217.8	13.1	21.0	4.8
1990	177.4	64.7	209.8	12.9	26.9	4.0
1991	184.0	65.9	225.6	12.5	32.2	2.7
1992	183.2	66.3	222.5	12.2	38.8	2.0
1993	195.4	73.8	246.0	9.2	48.7	0.5
1994	219.7	83.9	272.7	14.7	54.1	3.1
1995	233.8	80.9	242.7	15.4	62.0	1.7
1996	229.6	74.4	215.4	14.2	60.4	2.8
1997	219.4	68.0	201.7	12.8	56.4	2.1
1998	225.8	68.3	232.1	14.9	..	..

Source: World Bank (1999).

(discussed later) has also meant a slowing down in the build-up of indebtedness (and consequently in the obligations to repay).

The evolution of the external debt in SSA is reproduced in table 2 for selected African countries. By the mid-1980s, only Côte d'Ivoire and Nigeria faced a problem (Azam, 1997), but thereafter the problem spread to other countries in the region. Relative to the size of the economies as measured by the external debt-GNP ratio, only Uganda and Zimbabwe maintained their external debt levels below the average for SSA during the period 1985–1997. Cameroon and Ghana, which started with relatively low ratios, accumulated debt to levels above the average for the region. The remaining countries in the sample, both at the beginning and at the end of the period under study (i.e. 1985 to 1998) (except Uganda and

Zimbabwe, and Kenya in the latter half of the period), experienced a worse external burden than that for the region as a whole.² Kenya's external debt, for example, peaked at US\$ 7.5 billion in 1993, but has since declined to US\$ 6.9 billion in 1996, with much of the debt being aid-related (O'Brien and Ryan, 1999).

The external debt as a proportion of GNP and exports in Africa was nearly double the average for all developing countries, as shown by the following data for 1998 (World Bank, 1999):

	<i>Africa</i>	<i>Developing countries</i>
Debt as a percentage of GNP	68	37
Debt as a percentage of export earnings	232	146
Debt service as a percentage of export earnings	15	18

The external debt service ratio was, however, lower in Africa (by 3 percentage points) due to the concessionary terms of much of its borrowing. Table 1 shows that this ratio declined from 17.5 per cent in 1985 to 14.9 per cent in 1998.

The stock of external debt and its servicing therefore poses a major problem in many SSA countries. This is for three major reasons. First, as seen above, the external debt stock is large relative to the size of the SSA economies. The large debt overhang creates uncertainties and reduces incentives for investment. Second, as debt servicing constitutes a large proportion of export earnings and government expenditures, it reduces the resources available for imports, investment and socioeconomic development.³ Third, large external debt and its servicing undermines the credibility of domestic policies. It causes, for example, a deterioration in the relations between African countries and creditors, hence reducing the amount of trade financing that could be obtained. It also increases macroeconomic uncertainty, causing investors to exercise their option of waiting until the uncertainty is resolved or the returns are high enough to compensate for the risk of investing. The outcome is that capital formation tends to be dominated by short-term investments in trading activities with quick returns

rather than long-term physical investment (Elbadawi, Ndulu and Ndung'u, 1997). Further, countries in the region have experienced problems meeting their external debt obligations, reflected in accumulating payment arrears and debt reschedulings (table 1). By 1997, payment arrears on the principal and interest amounted to US\$ 56.4 billion, while scheduled loans amounted to US\$ 2.1 billion.

There is substantial evidence that a large external debt and its servicing have a negative impact on investment and growth (Greene and Villanueva, 1990; Elbadawi, Ndulu and Ndung'u, 1997; and Serven, 1997). For example, Fosu (1996), using data on a sample of 29 countries covering the period 1970–1986, found that annual economic growth declined by an average of 1.1 percentage points if a country was classified as highly externally indebted, via reduced productivity of investment. In a more recent study, Fosu (1999) estimated that SSA's economic growth rate would have been 50 per cent higher without the net external debt burden.

B. Public domestic debt

Some SSA countries have also accumulated substantial public domestic debt (see table 2), although this is not as large as the external debt. Reasons for this accumulation include increasing budget deficits and a greater reliance on domestic financing to compensate for the shortfall caused by the decline (cut-off) in the supply of foreign aid. In Kenya, for example, real foreign aid flows in the late-1990s fell to below the levels prevailing in the second half of the 1980s following suspension of programme support in 1991–1993 and in 1997–1999 (O'Brien and Ryan, 1999). In general, accumulation of domestic debt has reflected the size of the budget deficit (table 10) and the extent to which SSA countries have been able to borrow externally (table 11).⁴

Country experiences vary with respect to the evolution of the stock of domestic debt in the study period. As table 2 shows, some have experienced fairly systematic increases in domestic debt (e.g. the CFA economies of Cameroon and Côte d'Ivoire, which have been constrained

in the use of the nominal exchange policy to restructure their economies); others have experienced a U-pattern of domestic debt accumulation since the mid-1980s (e.g. Ghana and Nigeria that reversed some of their structural adjustment policies); and yet others have experienced an inverted U-pattern of domestic debt accumulation (e.g. the on-off reformers in Kenya and Zimbabwe). Some countries that have undertaken systematic reforms have experienced a fairly consistent reduction in the domestic debt burden (e.g. Malawi, Uganda, the United Republic of Tanzania and Zambia).

Cameroon's domestic debt, for example, increased from 3.5 per cent of GNP in 1985 to 38.3 per cent in 1995, while that of Côte d'Ivoire increased from 2.0 per cent in 1986 to 17.2 per cent in 1998. Among SSA countries with a U-pattern of domestic debt accumulation since the mid-1980s, Ghana's domestic debt, for example, declined from 15.7 per cent of GNP in 1985 to 3.0 per cent in 1991 before it increased again to 14.8 per cent in 1998; that of Nigeria declined from 114.3 per cent in 1985 to 31.2 per cent in 1992 before increasing to 63.8 per cent in 1998.

Among countries with an inverted U-pattern of domestic debt accumulation, Kenya's domestic debt rose from 12.0 per cent of GNP in 1985 to a peak of 33.5 per cent in 1993 before declining to 20.4 per cent in 1999; that of Zimbabwe increased from 27.3 per cent in 1985 to 33.3 per cent in 1987 to 41.9 per cent in 1995 and then declined to 30.1 per cent in 1997. A number of countries have substantially reduced their domestic debt burden: Malawi's domestic debt declined from 23.4 per cent of GNP in 1985 to 9.5 per cent in 1997, Tanzania's declined from 18.3 per cent of GNP in 1985 to 4.4 per cent in 1998, Uganda's declined from 5.2 per cent of GNP in 1985 to 1.7 per cent in 1998, and Zambia's declined from 6.5 per cent of GNP in 1985 to 0.4 per cent in 1997.

With domestic debt generally more expensive to acquire than external debt,⁵ the impact has been an increase in debt service payments in total government expenditures, thereby worsening the budget deficit. In Kenya's 1999/2000 budget, for example, funds allocated for servicing the domestic debt (21.5 billion Kenya shillings) were more than double those allocated for servicing the external debt (9.5 billion Kenya shillings), even though the stock of external debt was about three times the stock of domestic

Table 3
**EVOLUTION OF THE SHARE OF PUBLIC DEBT SERVICING IN TOTAL
 GOVERNMENT EXPENDITURES IN KENYA IN THE 1990s**
 (Per cent)

	1990	1991	1992	1993	1994	1995	1996	1997
Domestic debt	6.9	8.3	6.6	13.9	18.3	10.5	10.8	5.8
Foreign debt	3.3	3.7	3.6	2.4	4.2	3.8	3.9	3.2
Total	10.2	12.0	10.2	16.3	22.5	14.3	14.7	9.0

Source: Kenya, *Budget Speeches* (various issues).

debt; 16 per cent of total government expenditure was allocated for servicing the public debt (table 3).

Interest payments on domestic debt in the government budget have become more important than those on external debt for many African countries, as seen in the table 4.

Table 4
**SHARE OF INTEREST PAYMENTS IN GOVERNMENT EXPENDITURE
 FOR SELECTED AFRICAN COUNTRIES**
 (Per cent)

Country	Year	Domestic debt	External debt
Cameroon	1994	1.7	20.1
Côte d'Ivoire	1998	2.2	18.4
Ghana	1993	8.4	9.3
Kenya	1999	15.4	13.9
Malawi	1999	6.1	7.2
Nigeria	1999	..	2.4
Uganda	1999	..	3.4
United Rep. of Tanzania	1999	5.7	3.4
Zambia	1998	5.5	6.5
Zimbabwe	1997	14.1	8.4

Source: Economist Intelligence Unit Reports; IMF, *Government Financial Statistics and International Financial Statistics* (various issues); and World Bank (1999).

Note: .. = not available.

III. THE LINKAGES BETWEEN EXTERNAL AND DOMESTIC DEBT

There is a close linkage between accumulation of external debt and domestic debt, as economic agents borrow to fill the private savings-investment gap, the fiscal gap and or the foreign-exchange gap. The application of this gap-filling approach was most evident during the 1960s and 1970s, when governments were encouraged by donors to prepare development plans that provided estimates of exogenous savings needed to achieve given rates of economic growth.

The external debt crisis in SSA is largely a fiscal problem; a major cause of external debt accumulation is the large fiscal deficits incurred by the public sector. An overwhelming proportion of these debts is owned by the public sector, either directly or indirectly through public sector guarantees. Public finances and external debt are closely linked, as foreign aid – the largest component of the SSA debt – has been growing faster than all other financial flows, to the extent that by 1985 it accounted for 90 per cent of all net flows, and it has grown more rapidly than in other parts of the world (Roe and Griggs, 1990). To the extent that many African countries draw on external grants and loans to finance their activities, most of them have become dependent mainly on net official capital inflows. In addition, governments have either explicitly or implicitly guaranteed some of the loans of their private sectors, so that some part of the negative net transfers associated with these loans have found their way into the total fiscal or quasi-fiscal deficits.

Table 5 shows the composition of outstanding external debt: private non-guaranteed, public and publicly-guaranteed, and short-term. Much of the external debt in SSA (unlike Latin America) is public and publicly-guaranteed, with private non-guaranteed debt generally accounting for less than 5 per cent of the total debt during the period 1985–1999. The external debt is primarily owed to governments and multilateral organizations. A large proportion of the debt is therefore obtained from official sources – national governments or their agencies – and from multilateral agencies such as the World Bank and the IMF. Only a small proportion is obtained

Table 5
COMPOSITION OF EXTERNAL DEBT IN SUB-SAHARAN AFRICA, 1985–1998
 (Per cent)

<i>Year</i>	<i>Private non-guaranteed</i>	<i>Public and publicly-guaranteed</i>	<i>Short-term debt outstanding</i>
1985	5.35	76.92	17.72
1986	4.04	84.18	11.78
1987	3.41	86.95	9.64
1988	3.35	86.39	10.26
1989	3.29	85.76	10.94
1990	3.09	84.64	12.27
1991	3.05	84.55	12.41
1992	2.88	82.69	14.43
1993	2.70	81.65	15.65
1994	4.81	78.09	17.09
1995	4.44	77.39	18.17
1996	3.81	76.81	19.38
1997	3.68	77.00	19.33
1998	3.41	77.17	19.42

Source: World Bank (1999).

from private creditors, including the euro-dollar loans, suppliers' credit and loans from private commercial banks.

Table 6 (last column) shows that on average the net flows from official sources accounted for nearly 85 per cent of the aggregate net resource flows between the mid-1980s and mid-1990s, although the share declined from 90 per cent in 1985 to an average of 68 per cent over the period 1996–1998. Table 6 also shows other terms of external borrowing. The average grace period was 6 to 7 years, the average grant element was 30–50 per cent, the average interest rate was 3–6 per cent (it generally declined during the period 1985–1997) and the average maturity period was 22–27 years. Sub-Saharan Africa is not an undifferentiated whole; terms of external borrowing vary significantly from country to country (tables 7 and 8). For example, Nigeria and Côte d'Ivoire have borrowed substantially from commercial sources so that their shares of concessionary

Table 6
AVERAGE TERMS OF THE EXTERNAL DEBT
IN SUB-SAHARAN AFRICA, 1985–1998

Year	Average grace period (Years)	Average grant element (Per cent)	Average interest (Per cent)	Average maturity (Years)	Official net resource flows (Per cent of total)
1985	5.7	31.5	5.8	22.3	89.7
1986	5.8	35.7	5.0	23.0	90.1
1987	6.3	40.4	4.4	24.2	84.1
1988	6.6	43.5	4.1	24.2	84.8
1989	7.0	43.9	4.2	24.9	79.4
1990	6.9	43.5	4.3	25.1	93.0
1991	6.9	44.4	4.2	26.1	88.5
1992	7.4	49.9	3.5	27.4	94.3
1993	7.6	51.3	3.2	26.9	84.4
1994	6.1	42.1	4.0	22.0	76.3
1995	5.4	42.1	3.8	22.2	60.3
1996	6.9	49.1	3.3	25.7	73.8
1997	6.2	39.7	3.9	22.1	64.5
1998	..	..	..	..	66.8

Source: World Bank (1999).

debt have been relatively low: less than 5 per cent for Nigeria throughout 1985–1997. Nigeria received virtually no grants during the period 1995–1997.

As seen in table 9, foreign aid intensity in Africa (the size of aid flows relative to the various activity levels) is the highest among the major developing regions. According to O’Connell and Soludo (1998), median foreign aid levels doubled between the 1970s and 1980s. Foreign aid intensity continued to increase in the 1980s in response to the structural adjustment programmes which many countries in the continent adopted. It began to drop in the 1990s with an overall decline in aid levels and a shift in aid flows to the “transitional” economies of Eastern Europe. The downward trend in aid flows, falling from a high of US\$ 18 billion in 1994 (in 1997 US dollars) to US\$ 13 billion in 1998, combined with an improved growth performance in much of the region, led to a reduction of intensity.⁶

Table 7
CONCESSIONAL EXTERNAL DEBT/TOTAL EXTERNAL DEBT, 1985-1997
(Per cent)

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Senegal	Uganda	United Rep of Tanzania	Zambia	Zimbabwe
1985	34.0	7.0	41.1	30.2	47.9	1.9	37.5	38.5	38.1	26.6	15.7
1986	30.2	15.9	44.5	33.6	55.0	1.8	42.5	41.5	52.9	25.3	19.7
1987	29.6	16.5	49.0	32.5	59.0	1.5	47.1	44.3	49.7	26.3	25.0
1988	28.1	14.7	52.0	35.1	63.7	1.5	52.1	46.4	53.1	26.2	27.9
1989	29.5	14.6	53.8	33.8	65.2	1.5	52.9	52.9	54.2	23.6	28.2
1990	27.4	17.9	54.8	34.1	67.5	1.6	52.7	56.2	53.8	31.2	27.9
1991	27.0	18.7	54.5	36.7	73.7	2.9	54.5	58.5	54.5	36.6	27.7
1992	31.5	18.9	57.2	40.7	76.7	3.3	56.7	61.7	57.5	37.5	27.0
1993	33.2	19.4	59.3	43.7	82.2	3.6	55.5	70.3	59.0	41.2	28.4
1994	42.0	22.3	61.2	47.3	83.0	3.9	57.5	72.8	60.1	47.9	32.0
1995	43.9	24.2	63.6	52.5	84.6	4.0	58.3	77.5	59.8	50.2	30.1
1996	43.5	24.6	63.9	56.8	84.0	4.3	62.4	78.3	60.5	53.2	28.7
1997	42.5	28.9	66.5	57.5	88.2	4.6	65.2	79.5	70.9	56.2	28.2

Source: World Bank (1999).

Table 8
AVERAGE TERMS OF THE EXTERNAL DEBT: AVERAGE GRANT ELEMENT, 1985-1997
 (Per cent)

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Senegal	Uganda	United Rep. of Tanzania	Zambia	Zimbabwe
1985	14.9	2.0	54.8	24.0	70.5	6.9	34.7	49.0	32.2	62.1	32.2
1986	18.2	14.6	39.3	34.1	50.5	7.3	52.3	19.5	62.6	26.1	34.2
1987	24.7	22.8	59.2	38.2	71.8	7.5	53.1	42.8	57.1	50.9	28.2
1988	26.5	20.2	70.2	44.8	67.3	13.1	66.4	68.8	58.1	30.6	23.6
1989	19.7	19.1	54.8	52.6	73.2	20.2	68.8	46.3	51.6	21.9	19.1
1990	21.2	27.4	58.5	46.0	73.4	23.6	66.1	68.7	72.0	13.0	21.0
1991	25.5	31.5	57.7	44.2	60.6	27.8	49.2	63.3	74.5	76.0	21.7
1992	37.7	30.6	65.3	71.1	80.5	40.2	67.5	68.5	65.8	72.6	41.2
1993	36.2	38.5	54.5	63.6	70.5	48.4	65.9	67.0	67.1	74.6	52.4
1994	63.7	64.0	45.1	62.0	60.2	16.0	76.8	78.5	73.8	73.1	22.2
1995	58.7	63.7	55.6	39.0	78.2	0.0	76.0	80.4	48.3	70.8	35.4
1996	71.6	65.1	80.4	75.2	75.9	0.0	61.5	80.5	72.7	80.5	53.5
1997	81.5	65.8	54.9	81.0	81.3	0.0	75.6	82.8	79.0	64.2	29.1

Source: World Bank (1999).

Table 9
AID INTENSITY IN DEVELOPING REGIONS
(REGIONAL MEDIANS OF COUNTRY AVERAGES), 1990–1995

<i>Region or country</i>	<i>Real \$ ODA per capita</i>	<i>Net ODA as per cent GNP</i>	<i>Net ODA as per cent imports^a</i>	<i>Net ODA as per cent government expenditures</i>	<i>Technical cooperation as per cent of government wages</i>
Latin America	24.30	1.66	1.70	3.19	12.62
South Asia	15.89	6.96	21.24	20.49	28.09
HPAE ^b	4.10	0.22	0.23	1.70	5.68
SSA	51.59	14.41	28.38	49.70	37.25

Source: O'Connell and Soludo (1998).

Note: All Official Development Assistance (ODA) is net of interest payments. The data are drawn from the World Bank and OECD and do not include private funding by non-governmental organizations (NGOs). However, government aid through NGOs is captured in these data.

a Excluding technical assistance.

b High Performing Asian Economies.

In Kenya, for example, net official development assistance, excluding debt relief, declined from a peak of US\$ 1,053 million in 1990 to US\$ 606 million in 1996 (O'Brien and Ryan, 1999).

Concessional borrowing or grants in SSA are used to finance programmes for macroeconomic and sectoral reforms as well as technical assistance, discrete investment projects, and external debt relief. In Kenya, for example, official development assistance for budgetary and balance-of-payments support was about US\$ 960 million in 1990–1996; technical assistance was about US\$ 1,579.4 million (or 35.8 per cent of total grants); and debt relief was US\$ 150 million (O'Brien and Ryan, 1999).

However, distinguishing programme from project aid is misleading because foreign aid is “fungible” as it can be used to fund activities that the recipient government intended to finance in the absence of aid. Devarajan, Rajkumar and Swaroop (1998), based on a panel data of 18 SSA countries for the period 1971–1995, found that foreign aid (excluding technical assistance) boosted government expenditure by nearly the same amount as the foreign aid (90 per cent), of which about a third was used to

fund external debt repayments. The balance was divided equally between funding new capital projects and current government expenditures. Nearly a third of the foreign aid flows were used, in effect, for external debt repayments. Thus much of the debt involved a “ponzi” process, whereby governments sought new foreign aid mainly to service the existing stock of debt.⁷

In country case studies, Saasa and Mwanawina (1998) found that foreign aid was highly fungible in Zambia except for the agriculture, education and transport sectors; a quarter of it was used to finance recurrent spending. Ssemogerere and Kalema (1998) found that a 1 per cent increase in ODA growth led to a 0.8 per cent increase in government spending, with aid becoming more fungible over time. They attribute this to an increase in the share of programme aid in overall foreign aid flows and to an increase in the number of donors involved, making it difficult for individual donors to monitor how their aid is spent.

Conceptually, the linkage between fiscal deficits and accumulation of external debt can be seen from the national accounts identity: $(Sp - Ip) + (M - X) = (G + Ig - T)$, where Sp is private savings, Ip is private investment, M is imports, X is exports, G is government consumption expenditure, Ig is government investment expenditure and T is tax revenue. According to this identity, the private sector deficit $(Ip - Sp)$ plus public sector deficit $(G + Ip - T)$ is a reflection of the country's current account deficit $(M - X)$ in the balance of payments. An increase in the fiscal deficit will therefore be reflected in: (i) an increase in the balance of payments' current account deficit (this is postulated to be a one-for-one relationship under the so-called fiscal approach to the balance of payments, if the private sector balance is assumed to be small and stable); (ii) an increase in private savings (which may be a one-for-one relationship under Ricardo Equivalence); and/or (iii) a decrease in private investment. Which of the three components bear the burden of higher budget deficits depends on the flexibility and sophistication of the domestic financial markets, the source of domestic financing (money or bonds), the future expectations of economic agents, access to external finances and the composition of the deficit. Empirical evidence suggests that fiscal deficits mainly spill over into the external account deficit and also reduce private investment by raising real interest

rates (Easterly and Schmidt-Hebbel, 1993). Some estimates suggest that about 75 per cent of any increase in the fiscal deficit feeds through into the current external account, irrespective of the method of finance chosen (Balassa, 1988). Fiscal deficits result in increased external borrowing or they force the private sector into increased borrowing, leading to an accumulation of external debt over time.⁸

There is likely to be a two-way relationship between the fiscal and current account deficits. Reduction in the availability of external financing will force either a fiscal contraction or inflationary financing. Conversely, a government receiving external resources is likely to spend it, adjusting its budget accordingly. When external resources are spent on goods and services within the country, they generate multiplier effects which have a positive impact on the fiscal balance. Large amounts of these external flows are also likely to change economic behavior in ways that may lead to a widening of the fiscal gap to be filled. Large foreign aid inflows have for example led many SSA governments to expand their activities without expanding the domestic economy or their tax revenues.⁹

Table 10 shows the evolution of budget deficits/surpluses and table 11 shows the proportion of foreign financing of budget deficits in selected African countries.¹⁰ Cameroon has maintained fairly modest fiscal deficits, which accounted for less than 3 per cent of GDP in 1985–1997 (except for 1990–1991 when they were slightly more than 5 per cent of GDP) with the budget deficits in the early 1990s mainly financed from foreign sources. The Government of Cameroon has been praised for having bought foreign assets with its oil revenues to smooth its investment over time and to avoid Dutch disease, although some observers postulate that such resources would have earned higher returns if invested domestically (Azam, 1997).

Côte d'Ivoire, which was regarded as exemplary for adjustment performance, with most performance indicators being met (Azam, 1997), had a low budget deficit during the period 1985–1987. The adjustment, however, was achieved by a reduction in public investment, and was followed by a commodity crash in 1987 that reflected a sharp decline in the terms of trade, and it was further compounded by a decision not to sell the 1988 cocoa crop. This was followed by multi-party elections in 1990

Table 10
FISCAL DEFICIT OR SURPLUS IN SELECTED AFRICAN COUNTRIES, 1985–1999
 (Per cent of GDP)

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Uganda	United Rep. of Tanzania	Zambia	Zimbabwe
1985	0.8	-0.2	-2.2	-8.7	-8.4	-4.2	-2.5	-7.5	-15.2	-5.6
1986	0.6	0.6	0.1	-5.7	-9.9	-11.3	-2.5	-5.8	-21.4	-6.2
1987	-3.6	0.2	0.5	-4.4	-8.6	-5.4	-2.5	-4.7	-12.9	-8.7
1988	1.1	-14.6	0.4	-1.1	6.0	-8.4	-0.9	-2.4	-11.6	-7.2
1989	-3.2	-16.6	0.7	-4.9	-2.8	-6.7	-2.5	-2.3	-10.6	-6.4
1990	-6.0	-12.0	0.2	-5.5	-1.6	-8.5	-3.9	-1.9	-8.6	-5.3
1991	-5.4	-12.9	1.6	-3.7	-330.0	-10.9	-2.7	-4.4	-45.1	-7.1
1992	-2.6	-11.3	-5.2	-1.2	-10.5	-6.4	-7.2	0.7	..	-11.3
1993	-1.7	-11.9	-2.5	-8.0	-6.8	-11.1	-2.8	-4.2	..	-6.2
1994	-2.6	-6.5	2.2	-4.2	-31.8	-5.7	-3.3	-4.5	-3.7	-3.8
1995	0.2	-3.7	0.9	0.6	-10.8	..	-2.2	-2.1	-6.8	-9.4
1996	-1.7	-2.1	-3.0	1.2	-3.8	..	-1.7	-0.6	0.7	-6.1
1997	-0.9	-2.0	-2.1	-1.4	-5.8	..	..	1.6	-9.5	-5.1
1998	..	..	..	-0.8	-4.5	..	..	-1.2	..	..
1999	..	..	..	-0.7	..	..	..	..	..	..

Source: IMF, *International Financial Statistics* (1999); IMF, *Government Financial Statistics*, and *Economist Intelligence Reports* (various issues). Some data to fill gaps were derived from country publications (these include Bank of Ghana, *Economic Bulletin*, 1999; Central Bank of Kenya, *Statistical Bulletin*, 1998; and Annual Report, various issues; Reserve Bank of Malawi, *Financial and Economic Review*, 1998 and 1999; Bank of Tanzania, *Economic and Operations Report*, 1999).

Note: .. = not available.

Table 11
FOREIGN FINANCING AS A PROPORTION OF BUDGET DEFICITS IN SELECTED AFRICAN COUNTRIES, 1985-1999
 (Per cent)

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Uganda	United Rep. of Tanzania	Zambia	Zimbabwe
1985	..	..	46.5	-25.6	41.8	34.4	21.4	5.0	70.1	95.2
1986	..	..	..	-29.7	122.9	8.6	28.9	0.1	85.1	40.7
1987	46.5	..	..	-31.6	69.3	14.1	24.5	20.1	74.4	21.7
1988	..	52.1	..	-10.1	171.6	15.7	10.1	122.9	34.9	17.5
1989	86.8	63.3	..	17.0	64.9	37.8	65.6	-44.2	55.6	11.6
1990	88.7	95.8	..	48.7	293.7	7.1	147.3	19.4	12.2	17.7
1991	80.7	84.5	..	33.8	109.1	0.8	104.8	37.4	48.8	28.7
1992	131.5	86.7	0.2	32.5	45.7	30.0	533.0	..	0.2	65.8
1993	111.7	63.0	53.3	35.0	95.6	15.7	176.9	38.8	67.1	51.6
1994	122.0	156.6	..	-53.9	28.9	11.9	143.2	61.2	267.7	17.1
1995	..	113.2	..	..	27.9	84.1	160.9	4.6	356.7	17.1
1996	17.6	141.8	58.3	..	103.6	..	185.5	-164.1	194.8	22.8
1997	33.3	50.0	144.6	-76.0	52.2	267.7	192.5	63.6	158.1	-1.8
1998	..	418.4	35.9	-135.8	58.4	124.5	161.6	94.6	84.8	2.2
1999	..	1 047.3	22.8	112.5	..	..	..	..	..	-54.5

Source: IMF, *International Financial Statistics* (1999), IMF, *Government Financial Statistics and Economist Intelligence Reports* (various issues). To fill gaps some data were derived from country publications (these include Bank of Ghana, *Economic Bulletin*, 1999; Central Bank of Kenya, *Statistical Bulletin*, 1998; and Annual Report, various issues; Reserve Bank of Malawi, *Financial and Economic Review*, 1998 and 1999; and Bank of Tanzania, *Economic and Operations Report*, 1999).

Note: .. = not available or the country had a budget surplus that year. Negative figures occur, for example, where a budget deficit (surplus) is accompanied by negative (positive) external financing. Figures of more than 100 per cent occur when the external financing exceeds the size of the budget deficit.

and the suspension of World Bank disbursements in 1993, all resulting in large budget deficits between 1988 and 1993. A more effective stabilization was achieved during the period 1994–1997, following the January 1994 devaluation along with other measures such as debt relief and the adoption of new structural adjustment agreements with the Bretton Woods institutions.

Compared with the other SSA countries, Ghana's fiscal performance has been exemplary, with budget surpluses during most of the period under study. The adjustment programmes begun in 1983 relied mainly on external finances, much of this provided in grant form. Omitting interest expenditures, the so-called primary budget balance was in surplus from the mid-1980s, averaging about 2.4 per cent of GDP. This situation, however, may be misleading as suggested by the occurrence of high and unstable inflation rates (which declined to 10 per cent in 1992 and increased to about 70 per cent in 1995), persistent current account deficits (which increased to a peak of 12 per cent of GDP in 1993), nominal exchange rate depreciation and accumulation of public debt (Amoako-Tuffour, 1999). A study by Amoako-Tuffour found that the conventional budget balance in Ghana understated the broad deficit, on average by about 4 per cent of GDP between 1983 and 1995, by including programme grants and divestiture receipts as regular government revenue. This obscured the reality, that primary expenditures needed for basic government functions had become unsustainable by conventional tax revenues since 1992.

After macroeconomic stabilization in 1982–1984 following a military coup attempt, Kenya's fiscal management weakened in the second half of the 1980s and the early 1990s, with the fiscal deficit averaging about 5 per cent of GDP, but the deficit declined to an average of about 1.2 per cent in 1995–1998. Uganda and the United Republic of Tanzania experienced fairly modest deficits since the beginning of their economic reform programmes after the mid-1980s, with fiscal deficits generally less than 5 per cent of GDP in the period 1987–1998. Zambia experienced generally higher budget deficits (of more than 10 per cent of GDP in the late 1980s and early 1990s) which declined in the second half of the 1990s. In Zimbabwe, deficits fluctuated between 5 and 11 per cent of GDP throughout the period under study.¹¹

Table 12
CURRENT ACCOUNT DEFICIT OR SURPLUS IN SELECTED AFRICAN COUNTRIES, 1985–1997
 (Per cent of GDP)

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Uganda	United Rep. of Tanzania	Zambia	Zimbabwe
1985	-3.99	0.97	-2.97	-1.88	-11.17	9.16	-2.53	..	-17.55	-1.14
1986	-3.26	-3.25	-1.49	-0.62	-7.19	1.04	0.00	..	-20.89	0.27
1987	-7.59	-9.60	-1.93	-6.30	-5.22	-0.31	-2.24	..	-10.84	0.86
1988	-3.47	-12.08	-1.29	-5.53	-6.51	-1.30	-4.53	-7.02	-7.87	1.60
1989	-0.35	-9.90	-1.79	-7.08	-3.37	4.57	-6.87	-7.02	-5.47	0.20
1990	-2.03	-11.25	-3.79	-6.18	-4.78	17.52	-9.97	-13.24	-18.08	-1.59
1991	-0.13	-10.24	-3.82	-2.65	-10.33	4.40	-13.52	-15.53	-9.05	-5.29
1992	-1.76	-9.08	-5.88	-2.27	-15.83	6.93	-11.81	-14.57	..	-8.94
1993	-5.21	-8.57	-9.38	1.24	-8.00	-3.65	-11.82	-19.66	..	-1.76
1994	-4.17	-0.17	-4.68	1.37	-38.32	-8.99	-6.62	-15.13	..	-6.17
1995	-0.79	-4.93	-2.24	-4.42	..	-9.17	-7.73	-12.75	..	..
1996	-2.39	-0.63	-4.67	-0.80	..	9.93	-8.17	-7.05	..	..
1997	-1.32	0.34	..	-3.68	..	1.38	-7.91	-7.87	..	..

Source: World Bank, *World Development Indicators* (various).

Note: .. = not available.

There is a large body of empirical literature on the causes of external debt accumulation. For example, Ajayi (1991) and Mbire and Atingi (1997) found terms of trade, the effective real exchange rate and the fiscal position of the governments significantly correlated with the evolution of the external debt-GNP ratios in Nigeria and Uganda. They found fiscal performance to be one of the most important determinants (based on beta coefficients) of external indebtedness, along with changes in the real effective exchange rate and terms of trade. Other factors postulated as being important by empirical studies include overlending by banks, high foreign interest rates and a decline in world demand (Greene and Khan, 1990).

Table 12 shows the evolution of current account deficits. The panel data in tables 10 and 12 show a strong statistical correlation between budget deficits and current account deficits, with a significant causality from the former to the latter.¹²

IV. FINANCING BUDGET DEFICITS

Reducing a budget deficit calls for restriction on government expenditure and an increase in tax revenue. To contain the growth in government expenditure, the government needs to identify high-priority projects for funding and implementation, postpone or cancel low-priority projects, and ensure that recurrent resources are available in the future to operate and maintain completed priority projects and generally to improve the utilization of completed facilities. New projects should be funded only if they pass stringent tests of high productivity and cost effectiveness.

The budget deficit can also be reduced through an increase in government tax revenue and appropriations-in-aid.¹³ Tax revenue can be increased by improving the tax administration and reforming the tax structure. Non-tax revenue can be boosted by the policy of "cost-sharing": the charging of fees for the services provided by the public sector, notably in education and health. Since the 1980s, many African countries have undertaken tax modernization programmes to broaden the government revenue base and to increase the elasticity of the tax system. This has

entailed changes in tax rates, tax bands and coverage of taxation, as well as the revamping of the major collection departments, especially through the setting up of independent tax authorities.

Expansionary fiscal policy, which is not accompanied by a reduction in resources used by the private sector, affects output, prices and the balance of payments. The extent to which these variables are affected depends on the conditions in the country as well as the way the deficit is financed. There are three main ways of financing a fiscal deficit (Roe and Griggs 1990): (i) through money creation (“inflationary” financing); (ii) through sales of government securities; and (iii) through external borrowing. Financing from these three sources is combined to derive a “financiable deficit” compatible with the targets for inflation, output growth and sustainable internal and external debts (Wijnbergen, 1989).

The government may also finance a budget deficit through proceeds from the sale of assets, such as foreign exchange reserves and privatization proceeds. It might also flexibly borrow by building up arrears through deferred payment to its employees and the private sector and parastatals for goods and services provided. This delayed payment of outstanding obligations, either to employees or to suppliers of goods and services, may be an important source of government financing. In Kenya, for example, pending bills (arrears) increased from an estimated 3.0 per cent to an estimated 4.6 per cent of the stock of domestic debt between 1990 and 1998 (O’Brien and Ryan, 1999). In Ghana, unpaid bills to suppliers of goods and services amounted to about 4.6 per cent of total expenditures in 1995 (Amoako-Tuffour, 1999). Building payment arrears imposes an implicit tax as interest is not paid on outstanding balances. However, government delinquency on bills sets a bad example, undermining respect for the law of contract; it may also lead to economic agents not making the payments required of them, such as payment of tax obligations, with adverse effects on revenue collection (Roe and Griggs, 1990). Moreover, suppliers may bid up prices knowing that delays will take place, which in turn could increase the budget deficit. Parastatals may also incur deficits that are supported by the budget, thus increasing inflationary pressures.

V. THE LIMITATIONS AND TRADE-OFFS OF THE VARIOUS FISCAL DEFICIT FINANCING METHODS

A. Inflationary financing versus other domestic borrowing

Another means of financing is through the government borrowing from the central bank to finance a budget deficit, which directly increases money supply. Furthermore, the central bank could extend credit to parastatals at concessionary rates, which also increases money supply indirectly. Financing through monetary expansion creates excess liquidity in the hands of the public, increasing the demand for goods and services as well as assets. The extent to which the government can use seignorage (a claim on real resources from financing a budget deficit by printing money) therefore depends on the level and evolution of the demand for high-powered money. If the supply of money exceeds demand, this will lead to an increase in prices or to a deterioration in the balance of payments. If the exchange rate is allowed to vary, this will also lead to its depreciation. The inflation thus generated in turn reduces the demand for money, resulting in an inverted-U “Laffer curve” in the relationship between the seignorage tax revenue and the inflation rate.

There are clear limits to “inflationary finance”. Empirical evidence strongly suggests that monetary financing of a budget deficit will accelerate inflation (Easterly and Schmidt-Hebbel, 1993). Excessive use of the inflation tax therefore reduces the demand for high-powered money on which that tax is based. At low rates of money supply growth, seignorage will increase as the impact on inflation will be small. This is because the economy initially adjusts only slowly to monetary growth due to inertia and the differing expectations among economic agents on how the fiscal deficit will be financed. As monetary growth is accelerated, seignorage revenue reaches its optimal level and then declines (Roe and Griggs, 1990). First, high inflation rates (20–30 per cent) are accompanied by increased volatility, discouraging investment and economic growth, and hence reducing the demand for money. Second, the Olivera-Tanzi effect may come into play, widening the budget deficit, and hence accentuating the inflationary process by reducing the conventional tax revenues due to lags

in tax collection, with expenditures more responsive to inflation than tax revenues. Third, inflation has an adverse effect on the distribution of income, which may retard growth. Fourth, governments, until recently, have repressed their financial systems (through such measures as taxes and controls on interest rates, credit ceilings and directed credit programmes), which has reduced the demand for money and has thus limited the amount of seignorage revenue that can be generated.

There have been a few estimates of seignorage revenue in SSA countries. Adam, Ndulu and Sowa (1996) estimated average seignorage revenues of 0.4 per cent of GDP in 1986–1990 and -0.2 per cent of GDP in 1991–1993 for Kenya; 0.6 per cent and 0.4 per cent respectively, for the United Republic of Tanzania; and 0.3 per cent and 0.8 per cent respectively, for Ghana. Adam (1992) estimated the seignorage-maximizing rate of inflation of 13.5 per cent for Kenya over the same period.^{14, 15} If governments are severely limited in the size of the deficits that they can finance using the inflationary method, the question arises as to whether non-inflationary domestic borrowing offers an alternative to this method.

Domestic borrowing mainly occurs through the sale of securities to the public. The extent to which this mechanism is utilized depends on the size and sophistication of the country's capital market and the interest rate policy being followed. The small capital and money markets in many SSA countries (with a few exceptions such as Côte d'Ivoire, Kenya, Nigeria and Zimbabwe) implies that only limited deficits can be financed in this way. Due to the high interest rates required to place domestic debt, liberalizing the financial system in the presence of large budget deficits will increase the stock of domestic debt, especially when economic growth is sluggish. As a consequence, the share of interest payments in government expenditure will increase, with the deficit feeding itself. Therefore financial liberalization needs to be accompanied by a reduction in budget deficits.

Financing the fiscal deficit excessively through borrowing from the domestic financial sector may also adversely affect the balance of payments if this undermines the credibility of domestic financial assets because of increased risk of government default, leading to a substitution from domestic to foreign bonds (Tanzi and Blejer, 1984). Moreover, expectations

of exchange rate depreciation may lead to capital flight, worsening both the capital and current accounts. This need not occur if domestic interest rates increase to restore portfolio equilibrium, although this may reduce investment and growth. If government bonds are treated as net wealth, a larger budget deficit will increase consumption and imports and worsen the balance of payments. The demand for foreign bonds may also increase, worsening the capital account.

For a given budget deficit, a shift from central-bank financing of public deficits to financing through private markets entails, to a large extent, a shift from a high inflation regime to a high real interest rates regime. Whether this shift would bring about greater fiscal discipline and better monetary control depends on the political economy of the two outcomes. Since the losers from inflation (general public) are likely to be less vocal and politically weaker than the losers from high real interest rates (borrowers and their lobby groups), the shift may bring about greater fiscal discipline and better monetary control, reflected in lower fiscal deficits.

Many SSA governments have used compulsory mechanisms in order to facilitate domestic borrowing. To the extent that these mechanisms involve interest rates below market levels, they entail a tax on the holders of the debt instruments, particularly the financial system, causing financial repression. These compulsory mechanisms may take various forms (Roe and Griggs, 1990) such as cash reserve requirements with zero or very low interest rates paid on these reserves (which is an important instrument of a country's monetary policy), application of ceilings on growth of credit by financial institutions, and purchase of government securities by captive institutions at market or controlled interest rates. The captive institutions, such as national social security funds, are required by law to buy government securities, and, to the extent that interest rates are below market rates, this constitutes a tax on them. These institutions, however, may incur deficits that are financed by the State, which amounts to receiving a subsidy.

Consider the use of cash reserve requirements to reduce the inflationary effects of borrowing from the central bank. Based on the standard money multiplier model, an increase in the required reserves ratio reduces the ability of financial institutions to create credit, and hence reduces the

inflationary effects of a given government borrowing from the central bank. Reserve requirements, however, are in effect a tax on financial institutions and cause financial repression. An increase in the required reserves ratio increases the excess reserves held by financial institutions. It thus requires higher lending-deposit margins to compensate for reduced profitability, and hence a reduction in the tax base for inflation tax (Roe and Griggs, 1990).

Initially, an increase in the required reserves ratio will enable a given budget deficit to be financed using less money creation. However, as the cash reserve ratio is increased, the lending-deposit rates which financial institutions need in order to achieve a given profit margin also rise. This causes the public to reduce its demand for loans in response to the higher costs, and to reduce its supply of deposits. Beyond some level, further increases in the required reserves ratio are self-defeating as far as efforts to raise seignorage revenue is concerned. Beyond this level inflation rises for a given budget deficit, thus limiting the amount of funds that can be mobilized.

Financial repression will worsen this trade-off. Control on interest rates on lending results in a reduction in deposit rates or an increase in excess reserves, thereby reducing the base for monetary creation. Access to foreign financing by the government will also lower the U-relationship between the inflation rate and the required reserves ratio, as there is now a lower residual deficit to be financed. However, increased access to external financing by the private sector may shift the trade-off relationship upwards as it further reduces the demand for domestic loans. This would also reduce the supply for deposits (and demand for money) and hence result in higher inflation for a given budget deficit.

B. Inflationary financing versus external borrowing

Direct borrowing from abroad to finance a budget deficit, if fully monetized, will have a similar effect as a central-bank-financed budget. However, foreign borrowing permits imports of goods and services to increase. Hence such borrowing is likely to be less inflationary if used by

the government to purchase tradable goods or for direct imports. External borrowing, however, may be for the purpose of increasing foreign exchange reserves and strengthening domestic confidence. The government may also borrow on behalf of the private sector because it can obtain better access and better terms (hence this borrowing is similar to the acquisition of trade and suppliers' credit). In any case, the accumulation of external debt is likely to cause the foreign savings supply function to shift upwards, reducing the availability of funds and worsening the terms of external borrowing (Roe and Griggs, 1990).¹⁶

The trade-off between inflationary financing versus external borrowing can be seen from the national income identity discussed above. For a given fiscal deficit, a reduction of borrowing would mean a reduced current account deficit, implying increased dependence on inflationary tax for achieving equilibrium. Conversely, a lower reliance on inflation tax implies a greater reliance on external borrowing to finance a given fiscal deficit. Thus, for a given budget deficit, there is a conflict between reducing inflation and improving the balance of payments current account deficit. It is therefore imperative to reduce the budget deficit if the two are to be achieved in an adjustment programme. To replace the inflation tax, it is necessary to increase tax revenues, reduce expenditures or increase external borrowing. This implies acceptance of a higher balance-of-payments current account deficit. The size of this trade-off is an issue for further research.

C. *External borrowing versus domestic borrowing*

Many African countries finance payments of their external debt by issuing much more expensive domestic debt, through, for example, debt swaps whereby domestic debts are sold to retire an equivalent amount of external debt. This substitution of one debt instrument with another has budgetary implications. If the domestic interest rates are higher than the average cost of external debt, increasing the interest rate burden worsens the budgetary situation, hence calling for a fiscal adjustment or inflationary financing. This substitution need not be a straight asset swap; it can occur as a result of policies that improve the private or government savings-

investment balance. Improving the private sector balance requires an increase in real interest rates, but increasing the cost of servicing domestic debt may be bad for the budget deficit. As mentioned above, such a substitution therefore requires a fiscal adjustment, but this may be bigger than for a straight asset swap (Wijnbergen, 1989).

VI. IMPLICATIONS OF PUBLIC DEBT FOR MACROECONOMIC MANAGEMENT AND MONETARY POLICY IN AFRICA¹⁷

Here we discuss the problems that government debt causes for macroeconomic management, including exchange-rate and interest-rate policies. We also discuss the feedback effects of exchange rate depreciation and financial liberalization on fiscal deficits, and hence on public debt. While fiscal deficits make it difficult to implement appropriate policies in these directions, failures in the same areas may adversely affect the size of the budget deficit that needs to be financed. We also look at the implications for public debt management from opening up the capital account and the impact of the large public debt on the economy's vulnerability to external shocks.

A. *Exchange-rate policy*

The exchange rate in SSA has increasingly become an important tool for economic management and stabilization. Non-CFA countries have liberalized their exchange rate regimes and have typically moved from a fixed exchange rate regime to a crawling peg/floating rate regime, resulting in a more depreciated real effective exchange rate (table 13). In most of the countries that have opted for the floating rate regime, however, the float has been supplemented by interventions in the market to smooth out adverse exchange rate movements. During the period 1967–1980, for example, the United Republic of Tanzania adhered closely to maintaining a stable nominal exchange rate (Ndulu and Kimei, 1996). With the advent of stabilization programmes in 1981–1986, the government focused on

Table 13
REAL EFFECTIVE EXCHANGE RATES IN SELECTED AFRICAN COUNTRIES,^a 1985–1999

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Uganda	United Rep. of Tanzania	Zambia	Zimbabwe
1985	130.7	108.3	342.8	129.1	177.8	568.7	177.5	501.9	125.1	164.2
1986	144.7	130.2	197.0	113.0	159.6	310.5	186.5	347.4	61.3	151.2
1987	161.9	144.6	151.6	104.5	148.2	99.0	238.0	170.9	66.9	144.1
1988	157.8	147.9	145.7	99.3	158.0	99.5	217.0	134.0	101.5	133.6
1989	145.5	139.6	136.8	97.7	167.1	88.6	183.1	117.3	129.3	126.8
1990	149.6	141.3	136.1	90.1	165.8	82.2	112.4	90.1	106.8	111.0
1991	143.1	136.3	139.2	88.2	171.7	70.0	82.9	96.4	99.8	92.7
1992	144.3	142.4	123.0	92.6	158.1	58.0	76.9	82.2	95.7	83.5
1993	134.5	140.4	108.0	80.0	161.4	63.6	82.2	78.1	108.6	88.4
1994	86.6	86.5	86.9	100.5	114.6	118.0	102.2	91.6	104.5	83.7
1995	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1996	101.5	100.5	109.0	97.9	137.6	123.7	99.7	97.9	104.6	92.7
1997	96.9	98.9	115.6	88.0	152.9	142.0	107.0	88.0	125.3	91.7
1998	102.2	105.5	125.1	..	111.2	155.7	94.6	..	114.5	..
1999	109.9	103.5	125.9	..	110.4	82.0	88.1	..	112.0	..

Source: IMF, *International Financial Statistics*; World Bank, *African Development Indicators* (various issues).

^a An increase in the real effective exchange rate index denotes a real appreciation. It is defined as a nominal effective exchange rate index adjusted for relative movements in national price or cost indicators of the home country and selected countries. The nominal effective exchange rate index, on the other hand, represents the ratio of an index of the period average exchange rate of the currency in question to a weighted average of exchange rates for the currency of selected countries.

correcting the accumulated misalignment of the real exchange rate. Since 1993, the exchange rate has been determined by the market, with the unification of the various sections of the foreign exchange market.

For the countries of the *Communauté financière africaine* (CFA), which use a common currency guaranteed by the French Treasury, the exchange rate was fixed at 50 CFA francs = 1 French franc from 1948 to 1994 when there was a 100 per cent devaluation of the CFA franc. Before the 1980s, the CFA franc zone member countries performed well (M'Bet, 1996). With limited exchange controls, the zone experienced low inflation and large net inflows of capital. However, from the early 1980s up to the devaluation of 1994 the region's performance deteriorated as the real exchange rate appreciated in the context of deteriorating terms of trade and other shocks leading to a loss in competitiveness (see table 13).

Policy makers can potentially manage the exchange rate to achieve two different objectives. First, the exchange rate can be directed at achieving a real target, such as maintaining external competitiveness. Second, it can be used domestically as a nominal anchor to contain inflation at low levels. These two objectives present a policy dilemma in terms of how a country can maintain a competitive exchange rate and at the same time avoid a high rate of inflation. Nominal devaluation, for example, is an effective instrument for correcting real exchange misalignment but it may adversely affect the inflation rate.

Large fiscal deficits undermine these two objectives and fiscal rules in the CFA zone have not prevented the countries from generating fiscal deficits. Budget deficits lead to increased inflation, which is compounded by exchange rate liberalization. Further, exchange rate liberalization changes the inflation profile, leading to higher inflation as the economy loses a nominal anchor to tie down prices. Mweha and Ndung'u (1996), for example, show that moving from a fixed exchange rate regime to a crawling peg/floating rate regime increases the inflationary consequences of a given budget deficit and raises the inertial (underlying) inflation.

Large budget deficits tend to lead to misalignments of the real exchange rate, undermining the competitiveness of economies. Sustained

misalignment undermines economic performance and generates internal and external imbalances. M'Bet (1996), for example, found that overvaluation of the real exchange rate had a significant negative impact on GDP and exports, while it significantly increased the demand for imports in both Côte d'Ivoire and Burkina Faso.

Large budget deficits cause misalignment of the real exchange rate in various ways. In a number of African countries (e.g. Kenya and the United Republic of Tanzania), empirical evidence shows government expenditures (both on consumption and investment), which are mainly expended on non-tradables, appreciate the real exchange rate and thus undermine external competitiveness (Mwega and Ndung'u, 1997). More specifically, expansionary macroeconomic policies in Africa have led to an appreciation of the real exchange rate (see, for example, Mlambo and Ncube, 1996, concerning Zimbabwe), so that the goal of a competitive exchange rate has a bearing on the government's policy of fiscal restraint.

Budget deficits may also increase short-term capital inflows by raising domestic interest rates relative to foreign interest rates. Short-term capital flows, attracted by this interest rate differential, put pressure on the exchange rate to appreciate and this complicates exchange rate management and the goal of a stable exchange rate. In francophone countries, convertibility and a fixed exchange rate have led to capital flight when the macroeconomic environment has worsened and indebtedness and inflation rates have increased.

Therefore the implications of large public debts on exchange rates and interest rates call for better policies aimed at improving the financial system in general. In order to contain inflation and enhance external competitiveness, overly expansionary policies must be avoided through better planning and changes in public debt and money supply consistent with pre-determined exchange rate targets. It is also necessary to reverse the financial repression of the past, in part through containing public deficits, in order to allow, in particular, positive real deposit rates. Financial liberalization should, however, be undertaken in a sequenced manner, initially emphasizing macroeconomic balance and the development of a supportive institutional framework.

Exchange-rate depreciation (real or nominal), on the other hand, may affect the size of the budget deficit in various ways (Roe and Griggs 1990, Amoako-Tuffour 1999). First, exchange rate depreciation, by raising the relative price of tradables vis-à-vis non-tradables, will affect the government budgetary position depending on the extent it is a net buyer or seller of tradable goods. If the government is a net importer, it will incur higher local currency expenditures following a depreciation. If the share of government imports is large, the burden from a currency depreciation on the government may be quite high, with large budgetary implications. Second, currency depreciation will increase the debt-income ratio and the expenditures associated with external debt servicing, thereby worsening the fiscal deficit. Third, depreciation could be accompanied by policies that reduce the budget deficit, such as replacing non-tariff barriers by tariffs and/or imposing or increasing taxes on exporters who benefit from the depreciation. Improved resource allocation arising from an exchange-rate realignment to reduce overvaluation (e.g. improved export performance) may also boost growth and hence government revenues (Wijnbergen, 1989). Fourth, overvaluation may induce a shift from formal to informal/illegal activities, which shrink the country's tax base and reduce government revenues. Currency depreciation and liberalization of markets may bring these activities into official channels and into the tax net, thereby increasing government revenues.

All in all, it is therefore difficult to predict, a priori, the fiscal consequences of a currency depreciation. Focusing on the impact of currency depreciation on external debt servicing, Amoako-Tuffour (1999) found that if the government had met all its foreign interest payments, currency depreciation would have added, on average, 0.5 per cent of GDP annually to Ghana's budget deficit in the 1983–1995 period, accounting for about 34 per cent of total foreign interest payments for this period. The deficit increased from 0.17 per cent of GDP in 1984, when there were tight exchange controls, to nearly 1 per cent in 1987, when the exchange rate regime was substantially liberalized, before stabilizing at an average of 0.3 per cent of GDP in 1988–1992 and 0.7 per cent in 1993–1995.

B. Interest-rate policy

In the past, large budget deficits have induced African governments to repress their financial systems in order to contain the cost of domestic debt. This financial repression has been characterized by low or negative real interest rates, high reserve requirements (sometimes of 20–25 per cent compared to 5–6 per cent in developed countries), mandatory credit ceilings, and heavy government ownership and management of financial institutions, with considerable credit given on the basis of political rather than commercial considerations. That has given rise to a relatively large pile of non-performing loans in banks' portfolios. There has also been limited competition, with government and parastatals remaining the major borrowers.

Since the early 1990s, countries have liberalized their financial systems. An important component of financial sector reforms has been interest rate liberalization. Other components have included: (i) reducing direct and indirect taxation of financial institutions through changes in reserve requirements, mandatory credit ceilings and credit allocation guidelines; (ii) reducing barriers to competition in the financial sector by scaling down government ownership through privatization, and facilitating entry into the sector by domestic and foreign firms; and (iii) restructuring and liquidation of solvent banks (Inanga, 1995).

According to the World Bank (1994), however, the actual experience of many African countries with financial reforms has been of limited success. This has been mainly because of failure of real deposit rates to remain consistently positive, and continued repression as a result of the relatively high fiscal deficits which have characterized these countries and accelerated inflation when financed mainly by borrowing from the central bank.¹⁸ The situation has not changed much since the early 1990s. The World Bank study (1994), for example, judged a country to have a "good" fiscal stance if it had a budget deficit of less than 1.5 per cent. It can be seen from table 10 that it was only Cameroon, Kenya and the United Republic of Tanzania in our sample that could be judged to satisfy this criterion in the second half of the 1990s. It was therefore difficult for most of the countries to raise real deposit interest rates.

Financial sector reforms in African countries have therefore been undertaken in the context of pervasive macroeconomic instability, contrary to the advice that “postponing the removal of interest rate regulation may be appropriate until ... the situation has been stabilized and banking supervision strengthened (Villanueva and Mirakhor, 1990)”. The successful sequencing of financial liberalization requires macroeconomic stability (control of inflation) and fiscal discipline (reduction of fiscal deficit) in addition to improved legal, accounting and regulatory systems for the financial sector, a tax system that does not discriminate against the sector, and the management of sequencing so that, for example, capital inflows from liberalization do not offset macroeconomic stability (World Bank, 1989).¹⁹

When interest rates are controlled, the government reaps substantial revenue from the implicit tax on financial assets arising from repressing the financial system. Such revenue depends on its tax rate as measured by the difference between the domestic cost of borrowing and the shadow cost of the funds; and its tax base as measured by the stock of domestic debt outside the central bank. Therefore, financial liberalization may have adverse effects on the budget deficit (Roe and Griggs, 1990). When budget deficits are large, financial liberalization will entail very high nominal interest rates, including a premium for expected inflation, with adverse effects on the productive sectors. This may widen the budget deficit because of the increased interest payments on government borrowing, but also because of the increased need for expenditures to support the distressed productive enterprises. In a sample of 10 developing countries, Easterly and Schmidt-Hebbel (1993), for example, found a high correlation between domestic debt financing and interest rates. Osei (1995) also attributed the rapid accumulation of domestic debt to the high nominal interest rates in Ghana in the 1980s and 1990s. However, Amoako-Tuffour (1999) found that while interest payments on domestic debt increased markedly in Ghana, inflation also substantially reduced the value of outstanding debt; he estimated that about 30 per cent of interest payments between 1991 and 1997 represented compensation, rather than income, to debt holders for the nominal capital losses due to inflation.

Realistic interest rates, however, may reduce or reverse capital flight, making more funds available for government domestic borrowing (at

lowered inflation rates and lower implicit tax on the financial system). High interest rates on real deposits (arising from increased debt financing) may also increase financial savings and expand the base for the inflation tax.

C. Opening up of the capital account

The linkage between the fiscal deficit and the current account deficit increases the more open the capital account. According to UNCTAD (2000), capital outflows to Africa have increased as countries in the region have liberalized their capital account and become more integrated into the global financial system. By liberalizing outward capital flows, African countries have facilitated the acquisition of assets abroad.²⁰ However, capital account liberalization has also increased the volatility of net capital inflows, not their magnitude, with attendant consequences for exchange rate instability. This has also induced countries to build up foreign exchange reserves as a safeguard against a discontinuation or reversal of capital flows and speculative attacks on the currency (thus tying up resources that could be utilized to finance growth). According to UNCTAD (2000), while SSA imports increased by 8 per cent between 1995 and 1998, foreign exchange reserves increased by 50 per cent. This was most pronounced in countries such as Kenya and Uganda, which have liberalized their capital account. For the above reasons, less than 60 per cent of each dollar mobilized abroad for Africa had been allocated to real resource transfers.

As discussed earlier, the extent to which the government can use seignorage revenue depends on the demand for high-powered money. Opening up of the capital account increases the elasticity of the demand for money with respect to open economy variables such as the exchange rate and foreign interest rates, thus reducing the base for seignorage revenues.

Similarly, since domestic borrowing is limited by the small size of SSA countries' capital markets, governments have utilized capital controls to facilitate such borrowing. Opening up of the capital account therefore increases the degree of substitution between domestic and foreign bonds,

leading to a potential deterioration in balance of payments and limiting the amount that can be borrowed for given interest rates and current account deficits (Tanzi and Blejer, 1984). Lastly, openness facilitates foreign borrowing and hence accumulation of external debt.

As indicated earlier, the financial openness that characterized the domestic “official sector” in SSA countries translated portions of the public deficit into growing official external indebtedness. Simply put, this resulted in the problem of an unsustainable debt situation, which not only complicated the formulation and implementation of future public policy but also introduced serious uncertainties as to the external viability of the economies. The uncertainties would remain significant even if the proportion of concessional debt in the total were comparatively high, as it has been in SSA.

The main problems due to the opening up of the capital account in the context of high country debt ratios (as in SSA) revolve around the issues of uncertainty and related expectations (Roe and Griggs, 1990). First, the enlarged external public debt may generate expectations of higher future taxation and thus encourage transfers of wealth abroad. Second, the same enlarged debt might generate expectations of currency devaluation for boosting export revenues, which in turn would also encourage capital flight. Third, high debt ratios, particularly in an environment of weak domestic policies, may convince economic agents that the public sector has, in effect, lost access to external funds; this would provoke both capital flight and reduced investment, as economic agents seek ways to protect their incomes and wealth abroad. For these and related reasons, it has been argued that debt-reduction initiatives for the highly indebted poor countries are justified not only on humanitarian (poverty reduction) grounds but also from the viewpoint of counteracting the undesirable incentives to capital flight and reduced investment. Conducive domestic policies are, of course, a critical component of debt-reduction efforts if poverty alleviation and aggregate growth have to be sustained (in part by reasonable investment expansion).

Opening up of the capital account also renders the economy financially vulnerable to adverse external developments. As has been observed in recent studies on increased global financial integration, in developing countries

there were wide swings from the 1970s to the 1990s in the volume of international capital flows and in the terms and conditions on which external finance was made available. Given this instability and the associated economic damage, questions have been raised about the wisdom of undeterred liberalization of capital flows. And although there is broad consensus, supported by empirical research, about the positive outcome of pro-trade policies, the same cannot be said with equal conviction about liberalization of capital flows (Eichengreen and Mussa, 1998). This may be attributed to economic distortions arising from problems of asymmetric information (thought to be typically more severe in financial markets vis-à-vis product markets), such as adverse selection, moral hazard and herding behaviour (Mussa, 2000).

For an average African country with typical debt ratios, the swings in the volume of incoming external capital flows are, arguably, likely to be associated with changes in official flows, given the past pattern of borrowing. Thus, for various reasons, an economy may suffer from dependence on official external capital through unanticipated reductions in such capital. The reasons may range from changes in donor sentiments or on the aid system in general (vis-à-vis supporting a given country) to disagreements on conditionality, or policy prescriptions. In addition to this rather straightforward source of instability, however, swings in private capital flows may have significant implications on key macroeconomic variables, notably the exchange rate and interest rate. Private capital flows are relatively small for an average African country; however, they are large in terms of domestic private transactions in the foreign exchange and money markets. Thus a significant reduction in external private flows is likely to lead to domestic currency depreciation and to exert upward pressure on interest rates. These two developments may not be consistent with the underlying conditions or desirable macroeconomic directions.

The changing cost of external capital may also affect an economy in undesirable ways, particularly if the changes are not related to changes in export prices or the terms of trade. Although most countries in SSA now rely on concessional financing, upward changes in the cost of official capital (for whatever reasons) may strain the balance of payments and worsen the public sector deficit. Some governments and their public sectors in general

have also been borrowing from the external private sector, often on a short-term basis, thus further exposing their economies to strains from that source. Indeed interest-rate shocks from external financial markets could have significant effects on domestic interest rates and the exchange rate.

It may be concluded in respect of an opening up of the capital account, given the circumstances in Africa, that particular policy attention would have to be paid to the potential risks of a worsening capital flight problem and of depressing investments. In practical terms, that implies the opening of the account in a phased and measured manner: it is estimated that 70 per cent of Africa's non-land wealth is already held abroad (Collier and Gunning, 1998). Beyond this, public deficits would need to be carefully planned, given the overall macroeconomic context, and their specific sources of financing (including desirable external funding) determined. Short-term external borrowing, whether by the public or private sector, would need to be contained – given the recent experiences of crises in Asia and elsewhere – and closely related to levels of foreign reserves for a given country. In addition, proper regulation and supervision of the domestic financial system would have to remain a central priority of public policy, given the general experience with private capital flows in developing countries and the fact that the government has to serve as ultimate guarantor of the solvency of a country's financial system.

VII. SUMMARY AND CONCLUSIONS

This paper has analysed the relationship between external and domestic public debt in SSA, factors that contributed to the accumulation of both types of debt, their impact on macroeconomic management – including exchange-rate and interest-rate policies – as well as those problems arising from the opening up of the capital account in the context of a large public debt burden, among them increased vulnerability to external shocks.

SSA's external debt about doubled between 1985 and 1998. The external debt burden reached a peak in 1993–1994 and declined thereafter, partly due to improved growth, debt relief and rescheduling, commercial

debt buy-backs and a decline in overall aid levels. By the late 1990s, external debt as a proportion of GNP and exports in SSA was nearly double the average for all developing countries although the external debt service ratio was lower in Africa due to the concessionary terms of much of its borrowing.

The stock of external debt and its servicing therefore poses a major problem in SSA countries, and there is substantial empirical evidence that this has had a negative impact on investment and growth. The debt stock is large relative to the size of the SSA economies, with the debt overhang discouraging investment. Debt servicing is a large proportion of export earnings and government expenditures, which reduces the resources available for imports, investment and socioeconomic development. The capacity to service the debt has been low, as reflected in the substantial accumulation of arrears. Large external debt and its servicing have also undermined the credibility of domestic policies and contributed to macroeconomic instability.

Some SSA countries have accumulated substantial domestic debt since the mid-1980s (e.g. Cameroon and Côte d'Ivoire) due to large budget deficits and reduced access to external finance. In contrast, other reforming SSA countries have substantially reduced their domestic debt burdens (e.g. Malawi, Uganda and the United Republic of Tanzania). Yet in other countries domestic debt declined and then increased (e.g. Ghana and Nigeria) due to slippage in budgetary discipline, while in the late-reformers it increased and then declined (e.g. Kenya and Zimbabwe). With domestic debt generally more expensive to acquire than external debt, heavy domestic borrowing has resulted in an increase in the share of interest payments in total government expenditure, thus causing a vicious cycle with a worsening of the budget deficit.

A major cause of external debt accumulation in SSA has been the large fiscal deficits incurred by the public sector. Fiscal deficits resulted in increased external borrowing, or they forced the private sector into increased borrowing from that source. An overwhelming proportion of these external debts is owed by the public sector. And, overall, foreign aid intensity in Africa is the highest of any major developing region. The impact

of the budget deficits on external debt accumulation in SSA is supported by empirical literature, which finds the fiscal position of the government significantly correlated with the evolution of the external debt ratios, along with other factors such as the real effective exchange rate and the terms of trade. Given this evidence, therefore, it can be concluded that policies aimed at improved macroeconomic management must address the question of the appropriate level of the fiscal deficit and external debt for a given economy.

SSA governments have financed budget deficits in three main ways: through money creation, through sales of government securities, and through external borrowing. Deficits have also been financed in part by proceeds from the sale of assets (e.g. foreign exchange reserves and privatization proceeds) and through payments arrears (delayed payments for goods and services).

There are, however, clear limitations and trade-offs with the various methods of financing the fiscal deficit. Borrowing from the central bank may be inflationary, and empirical studies have shown that the amount of seignorage revenue that can be generated relative to the national income in a typical African country is quite modest. Inflation in turn reduces the demand for money, generating an inverted-U “Laffer curve” in the relationship between the seignorage tax revenue and the inflation rate. This is exacerbated by other factors. For example, high inflation rates (20–30 per cent) may be more volatile, discouraging investment and economic growth. Inflation also tends to adversely affect conventional tax revenues due to lags in tax collection, with expenditures more responsive than tax revenues to inflation (the Olivera-Tanzi effect). And of course, inflation may have an adverse effect on the distribution of income, which may retard growth.

Domestic borrowing through sale of securities to the public, on the other hand, is constrained by the small capital and money markets in many SSA countries (with a few exceptions, such as Côte d’Ivoire, Kenya, Nigeria and Zimbabwe). Liberalizing the financial system in the presence of large budget deficits, therefore, could tend to unduly raise interest rates. As a consequence, the share of interest payments in government expenditure would increase, with the deficit feeding on itself.

For a given budget deficit, a shift from central bank financing of a public deficit to financing via private markets entails, to a large extent, a shift from a regime of high inflation to one of high real interest rates. Whether this shift would bring about greater fiscal discipline and better monetary control is an empirical question. Since the losers from inflation (general public) are likely to be less vocal and politically weaker than losers from high real interest rates (borrowers and their lobbying groups), the shift may bring about greater fiscal discipline and better monetary control, reflected in lower fiscal deficits.

Given the limitations of both inflationary finance and domestic borrowing in the African context, it is clear that appropriate levels of public debt for a given country must reckon with those constraints if a stable macroeconomic environment is to be achieved and maintained.

Public debt has further specific implications for macroeconomic management and monetary policy. Large fiscal deficits, for example, undermine the two objectives of exchange rate policy: the maintenance of a nominal anchor to control inflation and improvement in external competitiveness. Empirical evidence shows that large budget deficits tend to lead to increased inflation, which may be compounded by exchange rate liberalization. Exchange rate liberalization changes the inflation profile, leading to higher inflation as the economy loses a nominal anchor to tie prices down. Moving from a fixed exchange rate regime to a crawling peg/floating rate regime increases the inflationary consequences of a given budget deficit and raises the inertial (underlying) inflation.

Budget deficits also increase the possibilities of real exchange rate misalignment. In a number of African countries (e.g. Kenya and the United Republic of Tanzania), empirical evidence shows that government expenditures (both on consumption and investment), which are mainly expended on non-tradables, tend to lead to a real exchange rate appreciation. More specifically, expansionary macroeconomic policies tend to lead to an appreciation of the real exchange rate. Budget deficits may also increase short-term capital inflows by raising domestic interest rates, and the inflows may lead to exchange rate appreciation.

Exchange rate depreciation (real or nominal), on the other hand, may affect the size of the budget deficit in various ways. First, exchange rate depreciation, by raising the relative price of tradables vis-à-vis non-tradables, would affect the government budgetary position, depending on the extent to which it is a net buyer or seller of tradable goods. Second, depreciation would increase the debt-income ratio and the expenditures associated with external debt servicing, tending to worsen the fiscal deficit. Third, depreciation is likely to eliminate the revenues from use of high tariffs for managing the balance of payments. That, however, could be accompanied by policies that compensate for the losses. Fourth, currency depreciation and liberalization of markets may bring informal/illegal activities into official channels and into the tax net, thereby increasing government revenues.

With respect to interest rates, it may be noted that since the late 1980s, SSA countries have liberalized their financial systems, with an important component being the liberalization of interest rates. However, the actual experience of many countries with financial reforms has been one of limited success. This is mainly because of the failure of real deposit rates to remain consistently positive due to the relatively high fiscal deficits that have characterized these countries. The situation has not changed much since the early 1990s. Financial sector reforms in African countries have also been undertaken in the context of pervasive macroeconomic instability, contrary to the emerging consensus on appropriate sequencing of such reforms.

When budget deficits are large, financial liberalization entails high nominal interest rates, including a premium for expected inflation; this has adverse effects on the productive sectors. The high rates may widen the budget deficit not only because of increased interest payments on the government borrowing, but also because of the need for expenditures to support the distressed productive enterprises. Realistic interest rates, however, may reduce or reverse capital flight, making more funds available for government domestic borrowing (at lowered inflation rates and a lower implicit tax on the financial system). Positive real deposit interest rates (arising from increased debt financing) may also increase financial savings and expand the base for the inflation tax.

The implications of large public debts on the exchange rate and interest rates therefore call for better policies aimed at improving the financial system in general. In order to contain inflation and enhance external competitiveness, overly expansionary policies should be avoided through better planning and changes in public debt and money supply consistent with pre-determined exchange rate targets. It is also necessary to reverse the financial repression of the past, in part through containing public deficits in order to allow, in particular, positive real deposit rates. Financial liberalization should, however, be undertaken in a sequenced manner, initially emphasizing macroeconomic balance and the development of a supportive institutional framework.

Turning to public debt and the problems that may arise from the opening up of the capital account, it should be noted that the linkage between the fiscal deficit and the current account deficit increases as the capital account becomes more open. Opening up of the capital account increases the elasticity of the demand for money with respect to open economy variables such as exchange rate and foreign interest rates, thus reducing the base for seignorage revenues. Similarly, opening up the capital account increases the degree of substitution between domestic and foreign bonds; this leads to a deterioration in balance of payments and limits the amount that can be borrowed for given interest rates and current account deficits. The main problems due to opening up of the capital account in the context of high country debt ratios (as in SSA) revolve around the issues of uncertainty and related expectations. First, the enlarged external public debt may generate expectations of higher future taxation and thus encourage transfers of wealth abroad. Second, the same enlarged debt might generate expectations of a currency devaluation for boosting export revenues, which in turn would also encourage capital flight. Third, debt ratios that are too high, particularly in an environment of weak domestic policies, may convince economic agents that the public sector has in effect lost access to external funds; this would provoke both capital flight and reduced investment as economic agents seek ways to protect their incomes and wealth abroad.

Moreover, opening up of the capital account renders the economy vulnerable to adverse external developments. As has been observed in recent

studies on increased global financial integration, for developing countries there have been wide swings through the 1970s and the 1990s in the volume of international capital flows and in the terms and conditions on which external finance has been available.

In the circumstances of an average SSA African country with typical debt ratios, the reasons for these swings may range from changes in donor sentiments (towards supporting a given country) or the aid system in general, to disagreements on policy conditionalities. In addition to these rather straightforward sources of instability, however, swings in private capital flows may have significant implications on key macroeconomic variables, notably the exchange rate and interest rate. Private capital flows are relatively small for an average SSA African country; however, they are large in terms of domestic private transactions in the foreign exchange and money markets. Thus, a significant reduction in external private flows or an increase in their cost is likely to lead to domestic currency depreciation and to exert upward pressure on interest rates. These developments may not be consistent with the underlying conditions or with desirable macroeconomic directions.

The key point to emphasize in respect of an opening up of the capital account in the context of SSA is that particular policy attention should be paid to the potential risks of exacerbating the capital flight problem and of depressing investment.

Table A.1
CENTRAL BANK NOMINAL DISCOUNT INTEREST RATES IN SELECTED AFRICAN COUNTRIES, 1985-1999

	Cameroon	Côte d'Ivoire	Ghana	Kenya	Malawi	Nigeria	Uganda ^a	United Rep. of Tanzania	Zambia	Zimbabwe ^b
1985	9.0	10.5	18.5	12.5	11.0	10.0	24.0	5.0	25.0	9.0
1986	8.0	8.5	20.5	12.5	11.0	10.0	36.0	8.0	30.0	9.0
1987	8.0	8.5	23.5	12.5	14.0	12.8	31.0	12.5	15.0	9.0
1988	9.5	9.5	26.0	16.0	11.0	12.8	45.0	14.5	15.0	9.0
1989	10.0	11.0	26.0	16.5	11.0	18.5	55.0	15.5	..	9.0
1990	11.0	11.0	33.0	19.4	14.0	18.5	50.0	..	..	10.3
1991	10.8	11.0	20.0	20.3	13.0	15.5	46.0	..	..	20.0
1992	12.0	12.5	30.0	20.5	20.0	17.5	41.0	14.5	47.0	29.5
1993	11.5	10.5	35.0	45.5	25.0	26.0	24.0	14.5	72.5	28.5
1994	7.8	10.0	33.0	21.5	40.0	13.5	15.0	67.5	20.5	29.5
1995	8.6	7.5	45.0	24.5	50.0	13.5	13.3	47.9	40.2	29.5
1996	7.8	6.5	45.0	26.9	27.0	13.5	15.9	19.0	47.0	27.0
1997	7.5	6.0	45.0	32.3	23.0	13.5	14.1	16.2	17.7	31.5
1998	7.0	6.3	37.0	17.1	43.0	13.5	9.1	17.6	..	39.5
1999	7.3	5.8	27.0	26.5	47.0	13.5	15.8	20.2	..	..

Source: IMF (1999).

Note: .. = not available.

^a Bank rate.

^b Rediscount rate.

Table A.2
OTHER INTEREST RATES AND INFLATION IN SELECTED AFRICAN COUNTRIES, 1985-1999

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Cameroon															
Deposit rate	7.50	7.35	7.15	7.21	7.50	7.50	7.50	7.50	7.75	8.08	5.50	5.38	5.04	5.00	5.00
Lending rate	14.50	13.50	13.00	13.46	15.00	18.50	18.15	17.77	17.46	17.50	16.00	22.00	22.00	22.00	22.00
Inflation	8.51	7.77	13.14	1.68	-1.67	1.10	0.06	-0.02	-3.21	35.09	13.92	4.67	1.04	0.10	..
Côte d'Ivoire															
Money market rate:															
overnight advances	10.66	8.58	8.37	8.72	10.07	10.98	10.94	11.44	..	..	..	..	..	4.81	4.95
Deposit rate	7.25	6.08	5.25	5.25	6.42	7.00	7.00	7.75	..	..	..	..	..	3.50	3.50
Inflation	1.86	9.68	6.94	6.93	1.05	-0.81	1.68	4.23	2.16	26.08	14.30	2.48	4.02	4.69	0.79
Ghana															
Treasury bill rate	17.13	18.47	21.71	19.76	19.84	21.78	29.23	19.38	30.95	27.72	35.38	41.64	42.77	34.33	26.37
Deposit rate (3 months)	15.75	17.00	17.58	16.50	..	..	21.32	16.32	23.63	23.15	28.73	34.50	35.76	32.05	23.67
Inflation	10.31	24.57	39.82	31.36	25.22	37.26	18.03	10.06	24.96	24.87	59.46	46.56	27.89	14.62	..
Kenya															
Treasury bill rate	13.90	13.23	12.86	13.48	13.86	14.78	16.59	16.53	49.80	23.32	18.29	22.25	22.87	22.83	13.87
Deposit rate															
(max. 3-6 months)	11.25	11.25	10.31	10.33	12.00	13.67	..	..	..	..	13.60	17.59	16.72	18.40	9.55
Lending rate (maximum)	14.00	14.00	14.00	15.00	17.25	18.75	19.00	21.07	29.99	36.24	28.80	33.79	30.25	29.49	22.38
Inflation	13.01	4.80	7.62	11.20	12.94	15.59	19.82	29.55	45.80	29.01	0.79	8.82	12.02	5.81	2.64

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Table A.2 (continued)
OTHER INTEREST RATES AND INFLATION IN SELECTED AFRICAN COUNTRIES, 1985-1999

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Malawi															
Treasury bill rate	12.31	12.75	14.25	15.75	15.75	12.92	11.50	15.62	23.54	27.68	46.30	30.83	18.31	32.98	42.85
Deposit rate (CB 3 months fixed rate)	12.50	12.75	14.25	13.50	12.75	12.10	12.50	16.50	21.75	25.00	37.27	26.33	10.21	19.06	33.21
Lending rate (max. CB rate)	18.38	19.00	19.50	22.25	23.00	21.00	20.00	22.00	29.50	31.00	47.33	45.33	28.25	37.67	53.58
Government bond yield	11.50	11.50	11.50	11.50	11.50	11.50	11.50	..	..	23.50	38.58	42.67	39.25	..	..
Inflation	10.52	14.05	25.18	33.88	12.46	11.81	12.62	23.75	22.77	34.65	83.33	37.60	9.14	29.75	..
Nigeria															
Deposit rate (3 months)	9.12	9.24	13.09	12.95	14.68	19.78	14.92	18.04	23.24	13.09	13.53	13.04	7.31	..	..
Lending rate (first class advances)	9.43	9.96	13.96	16.62	20.44	25.30	20.04	24.76	31.65	20.48	20.23	20.32	20.41	..	..
Inflation	7.44	5.72	11.29	54.51	50.47	7.36	13.01	44.59	57.17	57.03	72.81	29.29	8.21	10.32	..
Uganda															
Treasury bill rate	22.00	30.67	30.50	33.00	42.17	41.00	34.17	..	21.30	12.52	8.75	11.71	10.59	7.77	7.43
Deposit rate	20.00	23.33	20.00	21.50	32.17	31.25	31.17	35.83	16.26	9.99	7.61	10.62	11.84	11.36	7.83
Lending rate (exports and manufacturing)	24.00	33.33	34.67	35.00	40.00	38.67	34.42	..	..	..	20.16	20.29	21.37	20.86	21.57
Inflation	157.65	160.98	200.03	196.12	61.44	33.12	28.07	52.44	6.08	9.73	8.59	7.22	6.93	-0.02	6.35

.../...

Table A.2 (concluded)
OTHER INTEREST RATES AND INFLATION IN SELECTED AFRICAN COUNTRIES, 1985-1999

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Unit. Rep. of Tanzania															
Treasury bill rate	..	..	..	..	..	..	..	..	34.00	35.09	40.33	15.30	9.59	11.83	10.05
Deposit rate (CB 3-6 months)	4.50	8.50	15.75	17.46	17.00	..	..	..	..	..	24.63	13.59	7.83	7.75	7.75
Lending rate (CB lending upper margin)	12.29	18.50	27.50	29.63	31.00	..	..	..	31.00	39.00	42.83	37.21	29.23	26.67	29.83
Inflation	33.28	32.43	29.95	31.19	25.85	35.83	28.70	21.85	25.28	33.09	28.38	20.98	16.09	12.80	7.89
Zambia															
Treasury bill rate	13.21	24.25	16.50	15.17	18.50	25.92	..	..	124.03	74.21	39.81	52.78	29.48	24.94	36.22
Deposit rate (time 3-6 months)	15.33	17.74	13.23	11.44	11.44	25.65	..	48.50	..	46.14	30.24	42.13	34.48	13.08	20.27
Lending rate	18.60	27.40	21.20	18.39	18.39	35.10	..	54.57	113.31	70.56	45.53	53.78	46.69	31.80	40.36
Inflation	..	55.83	47.05	51.00	123.40	107.02	93.21	169.05	188.05	53.61	34.20	46.27	24.81	..	..
Zimbabwe															
Money market rate	8.80	9.10	9.30	9.08	8.73	8.68	17.49	34.77	34.18	30.90	29.64	26.18	25.15	37.22	..
Treasury bill rate	8.48	8.71	8.73	8.38	8.35	8.39	14.44	26.16	33.04	29.22	27.98	24.53	22.07	32.78	..
Deposit rate (3 months)	10.04	10.28	9.58	9.68	8.85	8.80	14.20	28.63	29.45	26.75	25.92	21.58	18.60	29.06	..
Lending rate	17.17	13.00	13.00	13.00	13.00	11.71	15.50	19.77	36.33	34.86	34.73	34.23	32.55	42.06	..
Government bond yield	13.26	13.20	13.87	14.00	14.00	15.24	17.27	17.40	..	..	..	..	..	..	..
Inflation	8.49	14.33	12.47	7.42	12.88	17.36	23.34	42.06	27.59	22.26	22.59	21.43	18.74	31.82	..

Source: IMF (1999).

Note: .. = not available.

NOTES

- 1 In our analysis, we did not use new or original data; we relied mainly on the IMF/World Bank databases. It was not possible to obtain from local sources national statistical publications and data (in series covering the period since the mid-1980s) for all the 10 sample countries we selected for our detailed analysis. We used information and data from the *Economist Intelligence Unit* and other country reports, where available.
- 2 There are obviously major practical problems in analysing external debt (Ajayi, 1991). First, currency changes can significantly influence the dollar amount of debt outstanding. Second, the composition of debt, which is not captured by these data, is important for debt management. Third, there are large inconsistencies in debt figures across the various sources. For convenience, we rely mainly on the World Bank (1999).
- 3 In this paper, we do not discuss in detail the issue of the extent to which rising public debt servicing has crowded out real spending on government services.
- 4 Overall, data on domestic public debt and budget deficit financing (both mainly from the IMF's *International Financial Statistics*) are weak and contain major gaps. The data, for example, only distinguish between domestic and foreign financing (the basis of table 11) but do not distinguish between the various types of domestic financing, which makes it difficult to tell a complete story on shifts in the structure of the financing of government deficits.
- 5 For the nominal domestic discount rates in selected countries, see table A.1; for the average interest rates on external debt, see table 6.
- 6 UNCTAD (2000) has called for a massive increase in foreign aid to Africa to accelerate and maintain growth at levels higher than in the past (about 6 per cent per annum) for a sufficiently long period (10–12 years). Combined with appropriate policies that include enhancing market incentives, streamlining the role of the State, and building institutions, this would reduce aid dependence by increasing savings and by attracting private capital, thereby gradually reducing the reliance on foreign aid.
- 7 This ponzi scheme is seen clearly in Kenya where the Government planned to make principal repayments of public debt over 1999/2003 from new external debts (41.6 per cent), new domestic debt (33.9 per cent), fiscal surplus (8.4 per cent), and privatization proceeds (16.2 per cent) (Kenya, *Fiscal Strategy Paper, 2000–2003*, 2000). Hence a very large proportion of new debts were to be utilized to repay existing public debt.
- 8 UNCTAD (2000) has argued that these gaps have widened since the early 1980s because of, among other factors, adverse terms of trade and increased imports due to trade liberalization.
- 9 Foreign aid is usually intended to augment investment and to improve the policy environment through conditionalities. Recent literature on foreign aid, however, has suggested that foreign aid is translated mostly into consumption, not investment (Boone, 1994; Obstfeld, 1995). This means that foreign aid will, on average, act as a substitute for domestic savings by easing liquidity constraints or by inducing Dutch disease effects. Elbadawi and Mwege (2000) found foreign aid to Granger-cause (in the precedence sense) a reduction in both savings and investment rates in SSA. The investment rate,

however, Granger-caused an increase in foreign aid, so that countries that increased their investment rates received more foreign aid inflows. In a structural pooled panel model, the study found that the foreign aid-income ratio had a negative impact on the private savings rate, with an almost one-for-one offset relationship. Dollar (1992) also found no significant relationship between foreign aid and the quality of policies.

- 10 These data are mainly from the IMF (1999) which defines the fiscal deficit as: (revenue + grants) minus (expenditure on goods and services + transfer payments + net lending). The definition, therefore, emphasizes cash flow rather than accrual concepts of revenues and expenditures. This is the definition most relevant in a discussion of the connection between the fiscal deficit and the balance of payments. The definition, however, has various shortcomings (Tanzi and Blejer, 1984). First, cash flows may not reflect the underlying trends, making it difficult, for example, to link the size of budget deficits and the degree of external financing (as in tables 9 and 10). For example, if a government incurs payment arrears, this cash concept may not reveal that expenditures are taking place. Second, the classification of grants as revenues (rather than a financing item) is problematic as grants may not be a permanent way of financing deficits, and they may fluctuate from year to year. Third, inflation makes it difficult to distinguish, in an economic (rather than legal) sense, interest payments from amortization charges.
- 11 It is important to distinguish the actual from the structural (or core) deficit. The structural deficit is derived by correcting the actual deficit for the effects of economic fluctuations and temporary measures. These temporary measures include: (i) expectations of future taxes from some taxpayers; (ii) use of occasional tax amnesties that allow tax payers who have evaded taxes in the past to “clean their slate” by making a once-for-all payment equal to some fraction of tax due; (iii) campaigns to collect tax arrears; (iv) use of temporary taxes or surcharges; (v) postponement of payments to suppliers; (vi) postponement of paying wages to workers and of increasing their wages; (vii) temporary taxes or surcharges; and (viii) an increase in the sale of public properties, including exploration rights. Even though the fiscal policy should be geared towards the structural rather than the actual deficit, we focus on the latter as it is easier to measure.
- 12 The analysis is based on Granger-causality tests utilizing three lags and random effect estimation. The sum of coefficients of causality from budget to current account deficits (0.006) was significant, at the 1 per cent level (p-value = 0.000), while the sum of coefficients of causality from current account to budget deficits (0.057) was insignificant, at least at the 20 per cent level (p-value = 0.397).
- 13 Appropriations-in-aid are levies charged and collected by government ministries and departments to at least partly finance their activities (e.g. user charges in government hospitals and schools).
- 14 The seignorage-maximizing rate of inflation is estimated in the following manner. Suppose the seignorage revenue is given by $r = \pi \cdot m$, where π is the rate of inflation (tax rate) and m is the real demand for high powered money (tax base). Suppose the demand for money is given by $m = \phi e^{-\delta\pi}$. The seignorage-maximizing rate of inflation is therefore $\pi^* = 1/\delta$. Adjusting for growth of income which increases the generated seignorage revenue, we get $\pi^* + m_y \cdot g_y = 1/\delta$, where m_y is the income elasticity of money demand and g_y is the average real growth rate.

- 15 Based on estimates of $\delta = 6.5$, $m_y = 1$ and $g_y = 0.03$.
- 16 It is important to distinguish between grants and concessional financing on the one hand, and commercial credit on the other. The deleterious effects of grants and concessional financing on the economy are likely to be relatively small. These resources can be used to finance imports or government expenditure. The authorities, however, should be concerned about the implications of these expenditures (e.g. pensions, consumer subsidies and a larger bureaucracy) on the future budget in the event of the provision of concessional funds being reduced or terminated.
- 17 Little research has been done on the issues addressed in this and the previous section. More research is required on the direct implications for the SSA economies, and the validity of the theoretical analyses, within the African context, of the various deficit financing mechanisms and their trade-offs. The implications of public debt for macroeconomic management and monetary policy, including the impact of capital liberalization on the domestic financial system and the cost of servicing the public debt also require further research. This may entail country-specific studies from which general lessons for the region can be drawn. What we do in the paper is basically to hypothesize on possible relationships and impacts and to summarize the empirical evidence (if any) that is available.
- 18 A major problem in many African countries (e.g. Kenya, Uganda and the United Republic of Tanzania) is that in the 1990s they switched to an indirect monetary policy where budget deficits were mainly financed by the sale of securities, which pushed real interest rates very high, with nominal rates generally much higher than the inflation rate (see table A.2).
- 19 In this paper, we do not delve into the debate on the merits or otherwise of a high interest rate policy. While a moderately positive real interest rate may be good for resource mobilization and efficiency, a highly positive real interest rate may be problematic for the economy. Very high interest rates, for example, may be stagflationary by increasing the cost of working capital and by reducing real wages, aggregate demand and investment. They may also induce capital inflows and an overvaluation of the real exchange rate, with consequent Dutch-disease effects. They may also increase bank losses and distress of the financial system as clients become unable to service loans, leading to curtailment of bank credit (African Development Bank, 1994). Because of information asymmetry between lenders and borrowers (information possessed by the borrowers, but not availed by the lenders), higher rates would tend to attract more risky projects, worsen the portfolio of financial institutions and increase the cost of monitoring the loans.
Experience with intervention and liberalization policies suggests that while financial repression has retarded the development of financial sectors in Africa and Latin America, such repression and directed credit schemes, advocated by the imperfect information paradigm, have been skillfully utilized to promote economic growth and transformation in South-East Asia. The outcomes therefore depend on the nature of interventions and implementation; they can have positive and welfare-enhancing effects or negative and deleterious effects (Nissanke et al., 1995).

- 20 The UNCTAD report, however, cautions that such outflows can also take place under controlled capital account regimes, particularly when such controls are ineffective and incentives for capital flight are strong.

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