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The African debt crisis

Joshua E. Greene and
Mohsin S. Khan

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I. Introduction

The external debt problem of African countries is now recognized as a serious global economic issue.[1] A number of papers on the subject, including studies by Humphreys and Underwood (1988), Mistry (1988), the United Nations (1988), Helleiner (1989), Greene (1989) and Lancaster (1989), have appeared during the past year.[2] In addition, the G-7 countries have acknowledged the gravity of the problem through their decision at the June 1988 Toronto Summit, and the annual meetings of the International Monetary Fund (Fund) and the World Bank in September 1988, to provide more extensive debt relief for very-low-income countries. In March 1989, the United States government also signalled changes in its own approach to debt relief, as evidenced by the recent Brady proposals for reducing external debt to commercial banks. Whether these proposals might extend to official debt is of particular interest to African countries since at the end of 1987, 71 percent of their publicly-guaranteed medium- and long-term external debt was owed to official creditors, compared to only 21 percent to financial institutions (Table 1a and b). [3]

The severity of the African debt problem can be seen from the data that appear in Tables 1–3 and Figure 1. These figures abstract from the significant differences among the debt positions of individual countries, in particular the success of a few countries such as Botswana and Zimbabwe in restraining their debt accumulation and in meeting their debt-service obligations without need for rescheduling. Nevertheless, the figures point to a sharp rise in aggregate debt during the past two decades.[4] From an estimated US$8 billion in 1970, the total external debt of African countries (excluding arrears) has risen to an estimated US$174 billion at end-1987, including short-term debt estimated at US$12 billion (Table 1 and Figures 1 and 2). Measured in constant (1980) US dollars, total African debt at the end of 1987 was nearly seven and a half times its level in 1970. Total debt-service payments by African countries are estimated to have grown from less than US$1 billion in 1970 to nearly US$18 billion in 1987, net of arrears and debt relief. As a ratio of exports of goods and services, Africa's debt service payments have risen from an estimated 8 percent in 1970 to 33 percent in 1987 (Table 2), again net of rescheduling and arrears. Total debt

Figure 1 Aggregate external debt of Africa, 1970–1987 (billions of US dollars)

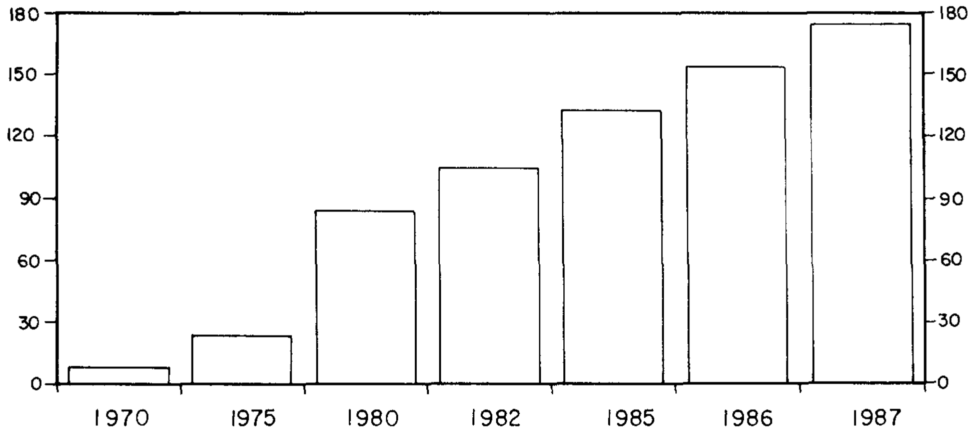
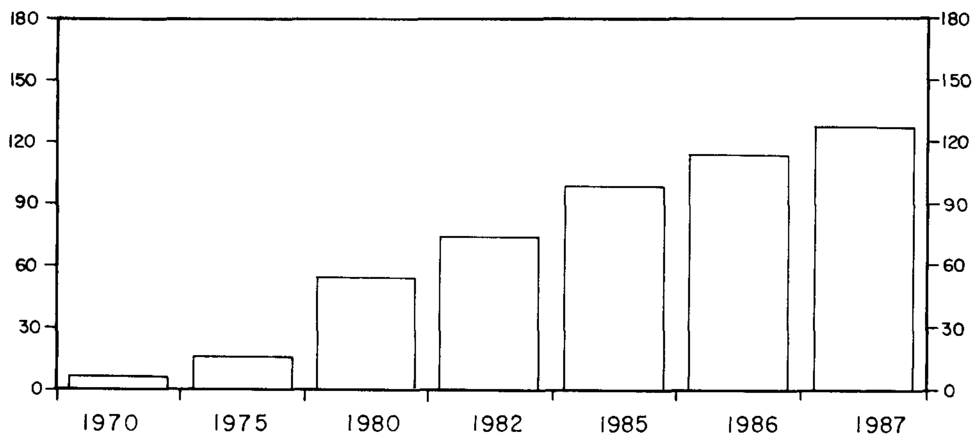


Figure 2 Aggregate external debt of Sub-Saharan Africa, 1970–1987 (billions of US dollars)



ratios have also risen sharply over this period. The ratio of total external debt to GDP has increased from an estimated 16 percent at the end of 1970 to 70 percent at the end of 1987. As a proportion of exports of goods and services, total debt has risen from an estimated 73 percent at the end of 1970 to 322 percent at the end of 1987. During the period 1980–1987, real GDP per capita of African countries declined by about 8 percent (Table 3).

Table 1a External debt and debt service of Africa[a] and Sub-Saharan Africa,[b] 1970–1987 (billions of US dollars; at end of period)

	1970 (est.)	1975 (est.)	1980	1982	1985	1986	1987
I. Africa							
Aggregate external debt by type of creditor	*8.2*	*23.5*	*84.2*	*104.8*	*133.0*	*153.8*	*174.0*
Medium and long-term debt incl. Fund	*8.0*	*22.5*	*75.1*	*91.6*	*120.5*	*142.3*	*162.2*
Medium and long-term debt excl. Fund	8.0	22.0	72.8	86.7	113.3	134.7	153.8
Publicly guaranteed	7.6	21.1	69.4	81.5	106.8	127.3	145.9
To official creditors	(5.2)	(12.4)	(35.9)	(48.0)	(69.3)	(86.2)	(101.7)
To private creditors	(2.3)	(8.7)	(33.5)	(33.5)	(37.5)	(41.1)	(44.2)
Not publicly guaranteed	0.4	0.9	3.4	5.2	6.5	7.4	7.9
Fund	—	0.5	2.3	4.9	7.2	7.6	8.4
Short-term debt	0.2	1.0	9.1	13.2	12.5	11.5	11.8
Debt service payments	*0.9*	*2.7*	*12.4*	*15.0*	*19.0*	*18.0*	*17.9*
To non-Fund agencies	0.9	2.6	11.6	14.3	17.7	16.1	15.8
Interest payments	(0.4)	(1.1)	(5.1)	(6.1)	(7.5)	(6.2)	(6.4)
Amortization (excl. short-term debt)	(0.5)	(1.6)	(6.5)	(8.1)	(10.2)	(9.8)	(9.4)
To the Fund[c]	—	0.1	0.8	0.7	1.3	1.9	2.1
Memorandum items							
Estimated impact of rescheduling	—	—	0.8	0.5	4.2	12.9	12.9
Estimated stock of arrears	—	0.5	0.6	5.8	14.5	17.2	18.4
Percentage of publicly guaranteed debts owed to:							
Governments	55.3	43.1	35.6	39.4	42.9	45.4	46.0
Multilateral institutions, incl. Fund	13.2	17.1	12.7	21.9	24.2	24.1	25.3
Financial institutions	5.3	22.7	35.3	30.1	24.1	22.8	21.0
Other creditors	25.0	17.1	11.6	8.7	8.8	7.6	7.7

continued next page . . .

Table 1b

	1970 (est.)	1975 (est.)	1980	1982	1985	1986	1987
II. Sub-Saharan Africa							
Aggregate external debt by type of creditor	*6.0*	*15.8*	*54.0*	*73.1*	*97.2*	*112.7*	*126.5*
Medium and long-term debt, incl. Fund	*5.8*	*15.2*	*47.9*	*63.6*	*87.6*	*105.3*	*119.2*
Medium and long-term debt, excl. Fund	5.8	14.7	45.1	58.5	80.8	98.9	113.3
Publicly guaranteed	5.4	13.8	41.8	53.6	74.7	92.3	106.4
To official creditors	(3.8)	(9.4)	(26.9)	(36.6)	(53.8)	(69.0)	(81.2)
To private creditors	(1.6)	(4.4)	(15.0)	(17.0)	(20.8)	(23.2)	(25.1)
Not publicly guaranteed	0.4	0.8	3.2	5.0	6.1	6.6	6.9
Fund	—	0.5	2.8	5.1	6.9	6.4	5.9
Short-term debt	0.2	0.6	6.1	9.5	9.6	7.4	7.3
Debt service payments	*0.7*	*2.1*	*6.4*	*8.1*	*12.2*	*9.9*	*9.2*
To non-Fund agencies	0.7	2.0	6.0	7.5	11.2	8.5	7.9
Interest payments	(0.3)	(0.8)	(2.8)	(3.6)	(5.2)	(3.6)	(3.7)
Amortization (excl. short-term debt)	(0.4)	(1.2)	(3.1)	(3.9)	(6.0)	(4.9)	(4.2)
To the Fund[c]	—	0.1	0.5	0.6	1.0	1.4	1.3
Memorandum items							
Estimated impact of rescheduling	—	—	0.8	0.5	3.1	11.1	11.1
Estimated stock of arrears	—	0.5	0.6	5.6	14.3	16.6	18.0
Percentage of publicly guaranteed debt owed to:							
Governments	53.7	46.9	40.4	41.9	44.9	48.8	49.2
Multilateral institutions, incl. Fund	16.7	22.4	26.2	29.0	29.5	27.7	28.4
Financial institutions	5.6	17.5	26.2	23.0	17.4	16.7	15.3
Other creditors	22.2	14.0	7.4	6.0	8.2	6.8	7.0

Sources: International Monetary Fund 1988; and *International Financial Statistics.*

a. Defined as Africa excl. Angola, Namibia, and South Africa.
b. Defined as Africa excl. Algeria, Angola, Morocco, Namibia, South Africa and Tunisia.
c. Repurchases and charges; excludes payments on Trust Fund and SAF loans.

The debt and output trends for Sub-Saharan Africa[5] point to an even more dramatic increase in external debt burdens. Aggregate debt (excluding arrears) is estimated to have risen from US$6 billion in 1970 to US$126 billion at the end of 1987, including short-term debt of US$7 billion. In constant (1980) US dollar terms, the increase was about 620 percent.

Table 2 Debt burden indicators for Sub-Saharan Africa and debt distressed countries (%)

	1970 (est.)	1975 (est.)	1980	1982	1985	1986	1987
Ratio of external debt to exports of goods and services							
Africa	72.6	71.2	108.7	180.4	230.4	315.0	321.9
Sub-Saharan Africa	65.4	65.2	94.1	190.9	253.6	335.5	352.4
Countries with recent debt-servicing problems[a]	131.7	111.0	155.6	247.0	282.3	322.6	317.0
Fifteen heavily-indebted countries[b]	162.5	133.9	169.5	271.9	301.2	361.0	347.6
Ratio of external debt to GDP							
Africa	15.9	19.5	31.9	41.4	50.3	58.1	70.0
Sub-Saharan Africa	14.1	17.1	27.2	38.7	51.2	62.8	81.6
Countries with recentdebt-servicing problems[a]	18.7	18.8	34.2	44.6	51.1	51.7	54.2
Fifteen heavily-indebted countries[b]	19.6	18.5	33.1	43.0	47.8	49.2	51.3
Ratio of debt service payments to exports of goods and services[c]							
Africa	7.8	8.4	15.9	25.5	32.6	36.9	33.4
Sub-Saharan Africa	7.7	8.2	11.1	23.2	31.8	29.5	25.6
Countries with recent debt servicing problems[a]	19.4	20.8	27.8	33.7	35.8	39.1	32.6
Fifteen heavily-indebted countries[b]	24.8	27.7	30.0	40.4	40.3	46.4	38.3

Source: International Monetary Fund, 1988.

a. Average for capital-importing countries that experienced external arrears in 1985 or that rescheduled debt during 1984–1986.
b. Average for Argentina, Bolivia, Brazil, Chile, Colombia, Côte d'Ivoire, Ecuador, Mexico, Morocco, Nigeria, Peru, Phillipines, Uruguay, Venezuela and Yugoslavia.
c. Data for 1970 and 1975 exclude payments to the Fund.

Total debt service payments have risen from an estimated US$1 billion in 1970 to US$9 billion in 1987, with the latter figure being less than the estimated total of arrears and debt relief during the year. Real GDP per capita, by comparison, is estimated to have fallen by over 11 percent over the same period. As a percentage of exports of goods and services, Sub-Saharan Africa's debt-service payments have risen from an estimated 8 percent in 1970 to 26 percent in 1987, again net of rescheduling and arrears. The region's debt ratios have also risen sharply over this period. The ratio of total external debt to GDP has increased from an estimated 14 percent at the end of 1970 to 82 percent at the end of 1987. Relative to exports of goods and services, total debt has risen from an estimated 65 percent at the end of 1970 to 352 percent at the end of 1987. In 1987, the region's ratios for debt to exports and debt to GDP exceeded those for the 15 heavily-indebted countries, and for the group of countries with recent debt-servicing problems,[6] while the debt-service ratio was smaller, mostly because arrears and debt relief reduced payments to less than half of all scheduled obligations. Thus, it seems fair to call Sub-Saharan Africa a debt-distressed region, even though a few Sub-Saharan countries, such as Botswana and Zimbabwe, have succeeded in meeting their external debt-servicing obligations.

The purpose of this paper is to discuss the causes of the debt crisis (Section II), as well as its consequences for African economies (Section III). Various policy options that have been proposed in the literature to address the debt issue are considered in Section IV. An analysis of what countries might do in the future once the debt problems are resolved is contained in Section V. The final part of the paper (Section VI), summarizes the arguments made and contains some brief suggestions for additional research.

II. Causes of the crisis

A variety of factors can be seen as having led to the African debt crisis. High among these is overborrowing. Most developing countries, including those in Africa, face a shortage of capital, and there is a strong presumption that foreign savings can and should be utilized to augment the stock of capital over and above what could be provided by domestic saving. This presumption implies that the typical developing country should be a net foreign borrower. The addition to the stock of external debt over time must contribute to growth and development, and in particular to the country's ability to make payments to creditors. This is the fundamental relationship underlying the notion of "sustainability" of the stock of foreign debt.

The issue, in other words, is not whether a developing country should borrow abroad, but how much it should borrow. For this, theory offers some insights— and an understanding as to how the overborrowing occurred. The analytical framework of the "growth-with-debt" literature, for example, provides a way of determining debt capacity and optimal foreign borrowing.[7] The standard model used for this purpose contains two building blocks. The first of these is a growth relationship in which domestic real output is assumed to depend on factors of production, such as capital, labour, and imported inputs, and on total factor productivity.[8] For simplicity, one can make domestic output (q) a function only of the domestic capital stock:[9]

$$(1) \qquad q = f(k)$$

where f_k is the marginal product of capital, $dq/dk = f_k > 0$

Real national income (y) is the difference between real output and interest payments on foreign debt:

$$(2) \qquad y = q - rD$$

where r is the foreign interest rate and D is the stock of external debt.

Combining equations (1) and (2), and differentiating with respect to time we obtain:

(3) $$\dot{y} = f_k\dot{k} - r\dot{D} - r\dot{D}$$

where a dot over a variable denotes a time derivative.

The second building block of the model is the savings relationship. Total savings (S) is made up of private savings (Sp), government savings (Sg), and foreign savings (Sf):

(4) $$S = Sp + Sg + Sf$$

Private savings can be specified as a function of disposable income:

(5) $$Sp = s\,(1 - t)\,y$$

where *s* is the average propensity to save, and *t* is the average tax rate on income.

Government savings is the fiscal balance, that is revenues (which in this model comprise only income tax revenues—ty) minus government expenditures on goods and services (G):

(6) $$Sg = ty - G$$

Finally, foreign savings is equal to the current account balance (net foreign borrowing):

(7) $$Sf = \dot{D}$$

In equilbrium, savings (S) will equal investment $(\dot{k})$, so by substituting (5), (6), and (7) into the identity (4) we obtain:

(8) $$\dot{k} = S = [s(1 - t) + t]\,y - G + \dot{D}$$

Converting equation (3) into growth rates and substituting for k from (8) yields:

(9) $$\frac{\dot{y}}{y} = f_k\left[s(1 - t) + t - \frac{G}{y}\right] + (f_k - r)\frac{\dot{D}}{y} - \dot{r}\,\frac{D}{y}$$

Equation (9) yields the basic propositions associated with the growth-with-debt literature. These are the following:

(a) A country can increase its growth of real national income by foreign borrowing so long as the marginal product of capital (f_k) exceeds the cost of foreign borrowing (r). Within this simple framework, the optimal level of foreign borrowing would be up to the point where $f_k = r$.

(b) An increase in private saving—through an increase in the average propensity to save—would raise the growth rate.

(c) An increase in the fiscal deficit, brought about either by a decline in tax revenues or an increase in government expenditures, would have an adverse effect on growth.

(d) A rise in the foreign interest rate would lower the growth rate (by the value of the debt-to-income ratio), as would a decline in external financing ($\dot{D}$).

It is clear from the discussion in the Introduction that a large majority of African countries have not been able to generate a sufficient increase in output, and in particular export earnings, to be able to meet their debt obligations. In other words, *ex post* the countries can be regarded as having overborrowed. Many factors—domestic and external—are responsible for this outcome. From the time of independence, Sub-Saharan African countries have undertaken public projects with heavy use of foreign financing. Many of these development projects were designed to create and expand the industrial base and social infrastructure, thereby allowing an increase in national income and exports. In retrospect, however, the assumptions underlying a foreign-financed development strategy proved to be incorrect for several reasons.

First and foremost, the terms of trade shifted against African countries (Table 3). In the early 1970s, following the first round of oil-price increases in 1973, prices for a number of commodities (cocoa, coffee, sugar, tea, groundnuts, sisal, phosphate and uranium) rose sharply.[10] Many of the countries that benefited from these price developments responded by sharply expanding public expenditure. Revenues from commodity taxation, though higher, did not rise as fast, and governments used foreign borrowing to meet the remaining costs of particular spending projects. When commodity prices subsequently fell, expenditures were not reduced commensurately, and governments resorted to additional borrowing to maintain expenditure levels. This policy would have been appropriate had the decline in the terms of trade been temporary, but the deterioration of the terms of trade persisted through the 1980s. By 1987, the terms of trade for Sub-Saharan countries (excluding Nigeria) were 24 percent below the 1980 level (Table 3),[11] and export earnings in dollar terms remained approximately the same.

Table 3 Selected economic indicators for Africa[a] and Sub-Saharan Africa,[b] 1970–1987

	1970 (est.)	1975 (est.)	1980	1982	1985	1986	1987
			(Index: 1980 = 100)				
Africa							
Real GDP	67.7	86.2	100.0	103.0	106.7	109.3	111.7
Real GDP per capita	90.0	99.8	100.0	97.4	93.3	92.8	92.1
Consumer prices	25.3	42.4	100.0	138.4	232.4	265.8	307.5
Export value	13.7	40.3	100.0	73.4	74.0	59.0	63.9
Export volume	95.6	95.6	100.0	80.7	94.8	100.6	98.1
Import volume	50.0	77.7	100.0	105.4	89.2	77.8	71.0
Export unit value	14.3	42.2	100.0	91.0	78.1	58.7	65.1
Import unit value	29.5	61.8	100.0	90.6	82.6	93.7	102.7
Terms of trade	48.6	68.3	100.0	100.4	94.5	62.6	63.4
Non-oil commodity prices	36.4	60.5	100.0	76.1	77.3	79.8	77.8
Gross capital formation[c]	19.2	26.7	23.3	21.4	16.9	18.8	18.6
Sub-Saharan Africa							
Real GDP	72.4	90.7	100.0	101.5	101.7	104.6	107.1
Real GDP per capita	97.0	105.8	100.0	96.1	89.1	89.2	88.8
Consumer prices	21.5	38.1	100.0	144.1	266.8	308.8	369.4
Export value	15.2	41.1	100.0	64.6	66.6	55.6	58.4
Export volume	94.9	97.6	100.0	70.4	81.4	85.8	82.9
Import volume	55.5	75.8	100.0	101.0	80.1	71.3	66.6
Export unit value	16.1	42.1	100.0	91.6	81.9	64.8	70.4
Import unit value	28.3	59.7	100.0	91.3	83.4	94.7	104.0
Terms of trade	56.8	70.6	100.0	100.3	98.2	68.4	67.7
Non-oil commodity prices	37.2	54.7	100.0	75.1	77.9	80.5	78.7
Gross capital formation[c]	19.2	23.8	20.0	17.2	11.6	13.5	13.0
Sub-Saharan Africa, excl. Nigeria							
Real GDP	75.4	88.9	100.0	104.7	108.4	112.2	114.8
Real GDP per capita	100.0	103.0	100.0	98.9	94.2	94.8	94.3
Consumer prices	19.7	33.6	100.0	154.8	291.0	359.7	452.3
Export value	26.6	50.9	100.0	83.9	86.4	87.7	90.1
Export volume	91.2	97.0	100.0	100.6	107.6	115.7	115.8
Import volume	76.8	85.0	100.0	95.8	87.2	84.4	83.4
Export unit value	29.2	52.5	100.0	83.4	80.3	75.8	77.8
Import unit value	27.0	58.3	100.0	91.4	83.2	93.8	102.4
Terms of trade	108.2	90.0	100.0	91.2	96.6	80.8	76.0
Non-oil commodity prices	37.7	55.0	100.0	75.4	77.6	80.8	78.9
Gross capital formation[c]	21.7	22.9	19.8	19.0	17.0	17.7	17.6

Source: International Monetary Fund, 1988.

a. Defined as Africa excluding Angola, Namibia, and South Africa.
b. Defined as Africa excluding Algeria, Angola, Morocco, Namibia, South Africa, and Tunisia.
c. As a percent of GDP.

Another factor that contributed to Sub-Saharan debt burdens during the 1980s was the rise in foreign interest rates. Although less important than for market borrowers, because of the predominantly official character of Sub-Saharan debt, rising interest rates nonetheless affected a number of countries that had made significant use of commercial borrowing.[12] According to Krumm (1985), higher real interest rates may have increased debt levels for Côte d'Ivoire, Malawi, and Zambia by more than 10 percent during the period 1979–1983.

The *decline in net capital inflows*, including external assistance, in the 1980s was yet another factor that affected the ability of Sub-Saharan countries to meet debt-service obligations. Combined net external borrowing and non-debt-creating flows, including estimated debt relief and arrears, rose from US$6 billion in 1975 to US$17 billion in 1982, before falling to US$8 billion in 1985. Total inflows recovered to US$13–14 billion in 1986 and 1987, but this was largely due to debt relief, estimated at US$11 billion during each of these years. Excluding debt relief and arrears, it is estimated that net capital flows fell from US$11–13 billion a year during 1980–1982 to less than US$1 billion a year during 1986–1987.

While external factors have contributed to the debt problems of Sub-Saharan countries, domestic policies also bear a considerable part of the blame. As noted earlier, many countries opted for major development programmes and *highly expansionary fiscal policies* during the commodity boom years of the 1970s, acquiring external debt as spending increases outpaced the rise in tax receipts. These spending policies continued for some time after the post-1980 collapse in commodity prices. A few countries also used external borrowing to maintain consumption in the face of falling export earnings. The growing fiscal deficits also reduced the ability of governments to make debt-service payments as they led to declines in the growth of national income, inflationary pressures, and overvaluation of exchange rates. Private savings, which could have been an alternative to foreign borrowing, were also discouraged by policies designed to keep domestic interest rates low. This resulted frequently in negative real interest rates and disintermediation in the financial sector.

III. Consequences of the African debt crisis

General consequences

The debt situation that has arisen from the factors just discussed has had a severe impact on African economies, exacerbating the problems arising from the sharp deterioration in primary commodity prices during 1986–1988. With export earnings having fallen during 1986–1987 to only US$43 billion, about 36 percent below the nominal level for 1980, steadily rising debt-service obligations have sharply constrained Africa's import capacity. By 1987, real imports by African countries were 29 percent below the level of 1980. The decline in capital-goods and intermediate imports has, in turn, had serious repercussions for the ability of African countries to finance and undertake development projects. Gross capital formation in African countries fell from 23 percent of GDP in 1980 to 19 percent in 1987. Accordingly, the growth rate of real GDP has averaged only 1.8 percent a year during 1980–1987, a full percentage point lower than the average annual rate of population increase. By 1987, real GDP per capita was 8 percent below that of 1980. Adjusted for the decline in the terms of trade, Africa's fall in GDP was even sharper, implying a much larger decline in living standards.

For Sub-Saharan Africa, the effects of the debt crisis have, if anything, been more pronounced. As of 1987, real imports were only two-thirds their 1980 level, reflecting the impact of higher debt-service obligations and export earnings only marginally above their 1977 levels. Between 1980 and 1987 gross capital formation fell from 20 to 13 percent of GDP. Real GDP per capita dropped by 11 percent during this period. To some extent these figures reflect the impact of the 1986–1987 oil-price decline on Nigeria, the largest of the Sub-Saharan countries. Excluding Nigeria, real imports in 1987 were 17 percent below their 1980 level, while 1987 exports in nominal US dollars were 10 percent below their 1980 level. Nevertheless, real GDP per capita was 6 percent lower in 1987 than in 1980, reflecting declines both in gross capital formation and gross domestic savings as a percentage of GDP.

Besides causing a decline in living standards, the accumulation of a substantial debt overhang has imposed tight constraints on economic policy. In many African countries, policy-making has deteriorated to a state of constant crisis management. Maintenance programmes relying on imported goods have been slashed to curb overall government expenditure, and longer-term issues, such as the need for addressing deteriorating social services or improving education programmes, cannot be addressed. Increasing amounts of time have instead been devoted to successive debt reschedulings and short-term adjustment programmes, many of which depend crucially on the vagaries of international primary commodity markets. In general, the continuity of macroeconomic policies, which is an essential condition for the undertaking of structural reforms, has had to be sacrificed in order to cope with the pressures of the debt and debt servicing.

The debt build-up and the resulting squeeze on external resources have also been destructive to economic institutions. With foreign exchange resources stretched to the limit, arrears on debt-service and external commercial payments have become commonplace. This has impaired the credit worthiness of many countries, and the number of domestic and foreign firms willing to invest or do business in African countries has plummeted. Foreign direct investment, which was never very large to start with, is now negligible, and future prospects are even worse. The scarcity of foreign exchange has also driven firms and individuals in many countries to import consumer goods, spare parts, and production inputs at high local prices through parallel markets, where the rate of exchange is often a multiple of the official exchange rate. Flourishing parallel markets have, in turn, encouraged the smuggling of exports, particularly where official exchange rates have not been adjusted in line with developments in parallel markets. At the same time, the effects of rising fiscal deficits and monetary expansion have contributed to rampant inflation in many countries, undermining savings incentives and making African countries even more reliant on foreign funds to finance investment projects. Rapid increases in import prices have also led to a diversion of investment funds from productive projects to the stockpiling of imports in some countries. In addition, expectations of large changes in producer prices have disrupted the steady flow of agricultural products to official export agencies, sometimes reducing export earnings as countries cannot meet export quotas or take advantage of temporary increases in world commodity prices.

Effects on future debt-servicing capacity and import levels

Africa's debt burdens also have important repercussions for the region's future debt-servicing capacity and for its ability to increase real imports. These implications can be seen with the help of balance of payments projections.[13]

Projections are made for exports, service credits and debits (including external interest payments), grants and private transfers, and the various elements of the capital account: direct investment, disbursements of medium- and long-term loans, loan principal payments, and short-term capital movements. Available financing, including reserve movements, official flows, and any debt relief, less planned reductions in any external arrears, is then calculated, which by definition equals the overall balance of payments. The difference between overall balance and the sum of the various current and capital account items described above indicates the amount of imports, consistent with the rest of the balance of payments in any particular year. Applying an appropriate world price deflator will convert the import figures into a set of real import levels. The consistency of these figures with overall growth targets can then be examined by calculating the yearly percentage changes in the projected real import levels.

By changing the levels of debt and debt service, one can estimate the impact of the debt build-up and of various debt-relief schemes on Africa's external position. Different import paths will emerge, depending on how the resulting savings in debt service are allocated among additional imports, and increase in reserves, and arrears reduction. The difference between these import paths and the baseline projection of imports will provide one measure of the impact of debt accumulation. In addition, by assuming a given rate of import-volume growth, the required change in debt-service obligations can be estimated. This change can, in turn, be compared to existing projections of debt relief or translated into a required reduction in the projected stock of external debt.

Tables 4 and 5, which draw on the World Economic Outlook (October 1988) projections for African countries up to 1990[14] illustrate how a debt-impact exercise can be performed. The main elements of the balance of payments for this group of countries are presented in Table 4, with the resulting trends of total debt-service payments, the total debt stock, and real import levels shown as memorandum items. In Table 5, alternative import paths are derived, using several assumptions regarding changes in the debt stock and the availability of debt relief. In addition, the amounts of debt relief and changes in export earnings needed to obtain a growth in real imports of 5 percent a year are estimated, [15] on the assumption that additional export earnings or savings in debt service are all used to increase imports.

Table 4 Africa: Hypothetical medium-term balance of payments scenario, 1986–1990 (billions of US dollars)

	1986	1987	1988 (est.)	1989 (proj.)	1990 (proj.)
Current account	*-12.7*	*-8.4*	*-10.6*	*-8.9*	*-9.4*
Trade balance	-2.8	0.3	-2.8	-1.0	-1.1
Exports	(40.0)	(43.5)	(42.8)	(47.0)	(50.2)
Imports	(-42.7)	(-43.2)	(-45.6)	(-48.1)	(-51.3)
Service balance	-17.2	-16.5	-16.6	-17.5	-18.3
Credits	(8.7)	(10.0)	(11.5)	(12.4)	(13.2)
Debits	(-25.9)	(-26.5)	(-28.1)	(-29.9)	(-31.5)
Transfers, net	7.3	7.8	8.8	9.6	10.0
Official	(4.4)	(4.8)	(5.4)	(5.9)	(5.9)
Private	(2.9)	(3.0)	(3.4)	(3.7)	(4.1)
Capital account	*-0.7*	*-0.8*	*-1.0*	*0.7*	*2.7*
Direct investment, net	1.3	0.9	1.3	1.3	1.6
M and L/T liability, net	-1.5	-1.9	-1.8	-0.9	1.3
S/T liability, net	-0.8	—	-0.2	0.4	—
Asset transactions, net	0.3	0.2	-0.3	-0.1	-0.2
Errors and omissions	-0.7	-1.1	0.3	-0.1	—
SDR allocation,val. adj., etc.	0.4	0.4	—	—	—
Overall balance	*-13.7*	*-9.9*	*-11.3*	*-8.3*	*-6.7*
Financing	*13.7*	*9.9*	*11.3*	*8.3*	*6.7*
Reserves (incr.)	1.1	0.1	0.7	-2.9	-3.1
Use of Fund credit, net	-0.6	-0.6	-0.3	0.4	1.0
Liab. const. for auth. reserves	0.1	-0.1	—	-0.1	0.4
Exceptional financing	13.1	10.5	10.9	10.9	8.4
Of which: Debt rescheduling[a]	(10.6)	(8.6)	(3.0)	(15.5)	(11.6)
Arrears[a]	(2.7)	(1.8)	(7.3)	(-7.0)	(-5.8)
Memorandum items					
Total debt-service payments[b]	18.0	17.9	18.7	20.6	20.8
Total debt stock[b]	153.8	174.0	184.6	194.5	209.1
Index of real imports (1980=100)[b]	77.8	71.0	70.9	72.6	74.6
Percentage change[b]	-12.8	-8.7	0.1	2.4	2.8

Source: International Monetary Fund, 1988, and estimates.

a. Figures reported here represent debt rescheduling and arrears granted during individual years and therefore differ from totals for arrears and cumulative impact of debt relief shown in Table 1.

b. Figures reported for 1986 and 1987 are based on Tables 1 and 3.

Table 5 Africa: Effect on import capacity of alternative debt and debt-reduction proposals

	1986	1987	1988	1989	1990
		(Index: 1980 = 100)			
Import volume					
Baseline projection	77.7	70.8	70.9	72.6	74.6
Halving of bilateral debt in 1989 and 1990	77.7	70.8	70.9	79.7	81.7
Five percent volume growth in 1989 and 1990	77.7	70.8	70.9	74.4	78.2
		(billions of US dollars)			
Import value					
Baseline projection	42.7	43.2	45.6	48.1	51.3
Halving of bilateral debt in 1989 and 1990	42.7	43.2	45.6	52.8	56.4
Difference from baseline	—	—	—	(4.7)	(5.1)
Five percent volume growth in 1989 and 1990	42.7	43.2	45.6	49.6	54.0
Difference from baseline	—	—	—	(1.5)	(2.7)
Memorandum items					
Bilateral official debt	63.7	73.7	77.0	82.4	89.1
Debt service payments	18.0	17.9	18.7	20.6	20.8
Estimated debt relief[a]	10.6	8.6	3.0	15.5	11.6
Exports	40.0	43.5	42.8	47.0	50.2

Sources: International Monetary Fund, 1988, and estimates.

a. Figures reported here represent debt relief and arrears granted during individual years and therefore differ from totals for arrears and cumulative impact of debt relief shown in Table 1.

Table 5 indicates the differences in available imports from several conceivable debt-relief and debt-reduction proposals. On the assumption that the assumed overall maturity (17 years) and average interest rates (5.5 percent) for African debt remain unchanged, a halving of Africa's official bilateral debt stock now projected at the end of 1989 and the end of 1990 would allow additional imports in 1989 and 1990 of US$4.7 billion and US$5.1 billion, respectively, assuming no further repercussions and no difference in the currently expected arrears or reserves paths. These figures are equivalent to real import levels that are 9.8 and 9.5 percent higher, respectively, in 1989 and 1990, than the baseline projections for these years. Table 5 also indicates that to allow for an increase in real imports of 5 percent each year from the previous year's level, debt-service payments would have to be lower by US$1.5 billion in 1989 and US$2.7 billion in 1990, or export earnings larger by the same amounts. This is equivalent to requiring an additional 3 percent rise in the value of export earnings or a 10 percent increase in anticipated debt relief in 1989, and increases of 5 percent in exports or 23 percent in anticipated debt relief in 1990.

The exercise undertaken here can be applied in principle to any individual country or group of countries. Likewise, other debt proposals can be simulated, to show their effects on debt-saving payments and the level of financeable imports. Alternatively, the amount of debt relief or debt reduction needed to achieve a targeted rate of import growth over a particular period can be calculated for any given projection of export earnings and capital inflows. The projections for export earnings and capital inflows can also be varied to show their impact on the financeable level of imports, as well as combinations of import growth, capital inflows, and debt relief consistent with desired import levels.

IV. Policy options to address the debt overhang

Given Africa's difficulty in achieving even a minimal level of real import growth while meeting its debt-servicing requirements, action is needed if African countries are to be able to attain the levels of real import growth needed to prevent further decreases in real GDP per capita. Apart from increases in external capital flows, a variety of debt-related policy options have been suggested. This section provides a brief summary of the most significant of the proposals that have been advanced, classified by the type of creditor to which debt is owed.[16]

Debt to bilateral creditors

To date, most of the attention on debt relief relevant to African countries has focused on debt owed to bilateral official creditors—governments and export credit agencies, primarily of industrial countries. At the end of 1987 this represented about 46 percent of Africa's medium- and long-term debt and 49 percent of the debt for Sub-Saharan countries. The debt proposal adopted at the Toronto summit in May 1988 dealt, for example, with bilateral official debt. Under this proposal, bilateral creditors agreeing to debt relief for low-income countries would choose among three types of relief to provide on debt which is rescheduled through the Paris Club: (1) forgiveness of one-third of the debt service due, with the remainder rescheduled over a period of 14 years, with 8 years' grace; (2) rescheduling all eligible obligations over a 14-year period, including 8 years' grace, at interest rates 3.5 percent below market or, when market rates are less than 7 percent, half the market rate; and (3) rescheduling of all obligations at market rates, over a period of 25 years, including 14 years' grace.

One option that has been suggested by Helleiner (1989), as an extension of the Toronto measure, is for bilateral lenders to forgive outright large portions of their debt to low-income countries.[17] This could be considered an extension of UNCTAD Resolution 165 (S-IX) of March 1978 that called for waiving the debt service on past official development assistance lending (or extending new grants to cover it) to the lowest-income countries and for future assistance to come in the form of grants.[18] A number of countries, particularly the United Kingdom, France, and the Scandinavian nations, have already forgiven significant portions of the African loan portfolios.[19] Several arguments are made in favour of further loan forgiveness. One is that bilateral governments do not rely heavily on reflows from past development loans to fund new assistance activities, and that the amounts involved are relatively small. Another is that debt forgiveness would relieve African countries of the heavy administrative and financial costs associated with the need for repeated debt rescheduling under the Paris Club. Under the present system, countries unable to meet their debt-service obligations must apply each year for debt relief. Compiling the necessary information for the Paris Club is both difficult and time consuming, and some countries find it difficult to obtain the foreign resources needed to meet the moratorium interest due on the rescheduled debt.[20]

Proposals for additional debt forgiveness carry certain risks, however. Creditors offering it would need to be clear that the relief was provided only to a well-defined group of countries, most likely low-income countries for which debt-service ratios exceeded some very high level such as 25 percent of exports of goods and services. It would also be important that the forgiveness be limited to countries pursuing appropriate economic adjustment programmes, so as to ensure that debt forgiveness was accompanied by efforts to restructure their economies and make them less dependent on foreign assistance. To provide relief for export credit, which represents a major share of bilateral African debt, budgetary support would be needed to replenish the capital of certain export credits agencies, such as the United States' Ex-Im Bank, whose operations are largely self-funding.[21] Finally, in some countries debt reduction might be seen as tantamount to a budgetary transfer and be used to offset an equivalent amount of new aid. For this reason some creditors might find it easier to approve forgiveness of the debt service due on certain African debt than to forgive the debt itself.

Debt to multilateral agencies

Another set of proposals has been suggested for relieving debt service due to multilateral agencies like the Fund and the World Bank, which at the end of 1987 accounted for about 25 percent of Africa's medium- and long-term external debt and about 28 percent of the same for Sub-Saharan Africa.[22] This category of debt represents a considerably larger fraction of Africa's actual debt-service payments because these agencies do not by convention offer debt rescheduling. This practice reflects the preferred status of multilateral agencies as creditors and the reliance of many agencies on the recycling of their capital to fund new activities. Debt relief or cancellation could not only threaten that status, but also require a reduction in their ability to undertake new operations without hard-to-obtain capital increases.

One proposal suggested for alleviating the debt-service obligations of African countries to multilateral agencies, is for bilateral donors to provide funds in the context of a Paris Club rescheduling for low-income countries to meet up-coming obligations to these agencies. Another is to provide the agencies with funds to offer debt relief directly to low-income countries undertaking suitable adjustment programmes. A third option is to establish a separate agency to absorb past loans, and perhaps extend Fund credit, to provide the existing agencies with a "clean slate" for making new loans to low-income countries. Each of these proposals has its own advantages and disadvantages, which are discussed at length in Greene (1989).

Apart from issues of principle, a major problem with all of these proposals is the difficulty of envisioning the financing that would make them operational. During the last several years, payments by Sub-Saharan countries, for example, to multilateral agencies have been estimated at roughly US$3 billion a year, a not inconsiderable fraction of the bilateral loan disbursements (US$2 billion) and grants (perhaps a comparable sum) these countries have received each year. To cover any significant fraction of their obligations due to multilateral agencies would require either a major diversion or significant expansion of the bilateral assistance now provided to these countries. Under the present budgetary conditions facing most bilateral creditors, it seems doubtful whether this type of support would be forthcoming.

Debt to commercial banks

Debt to commercial banks and other financial institutions represents a relatively small share of Africa's medium and long-term debt: about 21 percent at the end of 1987, and only 15 percent for Sub-Saharan Africa. Nevertheless, a number of African countries such as Côte d'Ivoire, Morocco, Nigeria, Zaire, and Zambia have significant amounts of commercial-bank debt outstanding. In addition, these and other African countries have requested or obtained debt relief from the London Club.

Numerous proposals for relief or reduction on external debt due to commercial banks have been offered, because of their relevance to middle-income countries, and analyses of their advantages and disadvantages have been presented elsewhere.[23] Of the various proposals, suggestions for debt-buybacks have been among those most frequently mentioned, and plans to this effect have been considered for Mozambique and the Rebuplic of the Congo. Measures to exchange old debt for new securities may be less realistic in the case of African countries because many private lenders may not be prepared to increase their present exposure to Africa. The US plan for debt reduction may well have an impact on the debt problems of those African countries that have significant amounts of commercial debt.

Debt to other private creditors and commercial arrears

A number of African countries have amassed significant external debts to private suppliers, and some have a substantial backlog of unpaid commercial and personal obligations. Some of these suppliers' credits may in fact have been assumed by export credit guarantee agencies and would therefore be extinguished under programmes to reschedule or forgive official bilateral debt. Nevertheless, proposals for clearing unguaranteed commercial payments arrears would benefit a number of African countries and go a long way towards restoring their commercial viability with suppliers and potential outside investors.[24] Whether donor countries would provide the necessary funds for arrears clearance is uncertain. To have maximum impact, any proposals for clearing African external arrears should be coupled with reforms of country trade-and-payment systems aimed at easing the externalization of capital income, wages, and pension earnings. This might be hard to achieve, however, in view of the severe foreign exchange constraints on many African countries and the difficulty in avoiding restrictions on payments for current transactions.

V. Looking beyond the debt overhang

Whether or not policies are adopted to alleviate Africa's debt overhang, measures will be needed to deal with the current constraints on Africa's import capacity and expansion of output. This requires, in the first instance, the creation of a favourable climate for investment to produce the growth rates needed to raise per capita incomes and living standards. Structural reforms aimed at modernizing investment codes, reducing restrictions on establishing new firms, eliminating price controls, and developing financial facilities are all central for raising the level and efficiency of investment. Equally important for investors (domestic and foreign), are macroeconomic stability and credibility of government policies. In the absence of incentives for private investment, it is unlikely that growth will revive sufficiently to compensate for a decade of economic losses.

To support the increase in needed investment would normally require a mix of additional foreign financing and increases in domestic savings. In so far as foreign financing is concerned, the prospects of large-scale inflows, as discussed in Section IV, do not appear very bright. Furthermore, it can be argued that additional foreign borrowing that would raise debt levels further is not even desirable. Certainly this would be the case for increases in non-concessional debt, as this type of borrowing carries relatively high interest rates and often short repayment periods. But the argument applies equally to concessional borrowing. Previous concessional borrowing for development projects represents much of the African debt now being rescheduled, and high rates of moratorium interest are being charged on the export credits frequently associated with these projects. Obviously, avoiding all foreign borrowing is unrealistic, since most multilateral agencies can only finance projects through loans. Care should be taken, however, to limit concessional borrowing to projects likely to yield foreign exchange earnings commensurate with the up-coming debt-servicing costs. Such an approach could be a useful component of an overall development strategy aimed at bolstering export earnings and promoting efficient import substitution. It could also attract support from bilateral donors, many of whom have provided an increasing share of their aid to low-income African countries in the form of grants during recent years.

Domestic savings will naturally have to take up the slack in foreign financing. The strengthening of domestic savings will require measures to increase both private- and public-sector savings.

Increasing private savings, for most African countries, will require a significant reform of current financial policies aimed at making it more attractive for individuals and firms to accumulate financial assets. Among other things, this is likely to require an increase in nominal interest rates, so that interest rates approach or become positive in real terms. It may also require some expansion of savings vehicles and an increase in banking facilities in currently under-served areas. At the same time, however, most African countries will need to devote serious attention to reducing inflation and creating the type of environment conducive to amassing private savings. In many African countries inflation rates are so high that, in the absence of very large increases in nominal rates, consumers find it attractive to consume, or acquire real assets, and merchants are encouraged to stockpile consumer goods as a hedge against inflation. Without moderating the rate of inflation, it is hard to see how these disincentives to savings can be overcome, particularly in view of the strong political resistance to increasing interest rates observed in many African countries.

As for public savings, the key to any increase must be a reduction in fiscal deficits. Boosting public savings requires a willingness to increase government revenues, reduce expenditures, and decrease the losses of public enterprises. Each of these steps is likely to be politically difficult. Achieving higher revenues may require significant revisions in tax laws and in revenue administration and enforcement, while expenditure cuts may require tighter systems for monitoring government expenditure. In addition, governments will need to be willing to limit certain popular types of programmes, such as subsidy payments and military outlays, in order to preserve funds for programmes more closely related to increasing economic growth. These include expenditures for efficient capital projects, for maintenance of existing capital projects, for certain education and health programmes, and for materials and equipment required for the productivity of the civil service. In some countries, it will be important to preserve and augment staff salaries. In others, reductions in the number and the size of salary increases for civil servants may be needed.

VI. Conclusions

There is no longer any disagreement or doubt that African countries generally, and those in Sub-Saharan African in particular, face a serious and growing external debt problem. External debt as a ratio to GDP or to exports of goods and services has risen more than three-fold since 1980, and in the case of Sub-Saharan Africa now exceeds the comparable ratios for other developing countries with debt-servicing problems, such as the heavily indebted countries in Latin America. During the past five years, more than half the Sub-Saharan countries have incurred arrears on debt-service obligations or sought debt rescheduling. In 1987, without debt relief, scheduled debt-service obligations would probably have exceeded 50 percent of exports of goods and services.

The African debt crisis cannot be attributed to a single cause. Many factors were responsible. Some were external, such as the deterioration in the terms of trade, the rise in foreign interest rates, and the fall in external financing. However, inappropriate domestic policies—growing fiscal deficits, rapid monetary expansion, and maintenance of overvalued exchange rates—also played a significant role in the build-up of the debt and the inability to service it. The theoretical presumption that these factors would exert a negative effect on the ability to repay on time appears to be supported by developments in Sub-Saharan countries in the past decade.

The consequences of the debt crisis have been quite severe for the African economies. Growth rates, investment rates, and exports have all fallen sharply since 1980. Real per capita GNP has declined steadily by about 1 percent a year during this period. The existing debt burden is proving to be a significant obstacle to the development efforts of governments in Africa. Furthermore, the debt has seriously constrained the scope of macroeconomic policy-making, and has had damaging effects on economic and financial institutions. Economic policy-making in many African countries has been reduced to crisis management, with longer-term strategies being shelved in order to meet the day-to-day needs of foreign exchange, to make debt-service payments and acquire necessary imports for production and consumption.

This paper has considered several proposals for debt relief that have been made in the literature on African debt. These relate to debt to bilateral creditors, to multilateral institutions, to commercial banks, and to other private creditors. Unfortunately, at this stage there is considerable uncertainty about any of these being implemented, since they require financial resources that neither the donor countries, nor the multilateral institutions, are ready or able to provide. But clearly, there is a real and pressing need for a comprehensive solution to the African debt problem. Without such a solution it is difficult to see an end to the underlying problems of poverty and stagnation that are crippling many, if not most, African countries.

This paper has taken a broad look at the African debt crisis. There is a need for more in-depth research and analysis of debt problems of individual African countries. Each country has its own pattern of debt and debt service. In addition, solutions are likely to be tailored to each country's individual circumstances, particularly proposals for debt relief or reduction formulated in the context of economic adjustment programmes. It is incumbent on researchers in individual countries to improve their knowledge of present and forthcoming debt burdens and to develop blueprints for meaningful adjustment programmes. Creditor countries have indicated their willingness to assist African countries in responding to their debt problems. Events during the past year have indicated clearly, however, that such assistance will be available only to those countries willing to adjust their own economies in the direction of improved external viability.

Notes

1. Throughout this paper the term African countries is used to denote the 47 IMF member countries in Africa excluding South Africa. Of the various African countries, only Angola and Namibia, in addition to South Africa, are not included.
2. Earlier studies on the subject include Krumm, 1985, and Lancaster and Williamson, 1986.
3. The remaining 8 percent was owed to other private creditors.
4. The data prior to 1980 must be treated with some caution.
5. This is defined as Africa excluding South Africa, Algeria, Angola, Morocco, Namibia, and Tunisia.
6. These countries are defined as capital-importing developing countries that incurred external payments arrears in 1985 or that rescheduled their debt at any time during 1984–1986. See International Monetary Fund, 1988, p. 54.
7. See McDonald, 1982, for a survey of this literature. An explicit derivation of the basic model is contained in a recent paper by Hernandez-Cata, 1988.
8. This is basically the neoclassical form of the growth model. See Khan and Montiel, 1989.
9. Expanding the model to take the role of other factors into account, as well as the effects of total factor productivity, does not significantly alter the results.
10. See Krumm, 1985.
11. If Nigeria is included, the decline in the terms of trade was 33 percent.
12. These include Botswana, Côte d'Ivoire, Kenya, Liberia, Malawi, Mauritius, Niger, Nigeria, Senegal, Zaire, Zambia, and Zimbabwe.
13. The following analysis follows the approach used in Stymne, 1988, to calculate trade-offs among import levels, debt reduction, and export earnings for Sub-Saharan Africa.
14. See International Monetary Fund, 1988.
15. This 5 percent annual growth rate for real imports was chosen arbitrarily.
16. For a discussion of various proposals advanced for debt relief, see Helleiner, 1989, and Lancaster, 1989.
17. A similar proposal has also been made by Mistry, 1988, and endorsed by Lancaster, 1989.
18. See United Nations, 1988, par. 67, p. 24.
19. In early July of this year, the United States announced its intention to forgive a significant portion of its ODA debt from low-income African countries that were implementing adjustment programmes.
20. See Helleiner, 1989.

21. See Lancaster, 1989, for a discussion of this issue.
22. Among those making these proposals are Mistry, 1988, and Helleiner, 1989. See also the papers in Lancaster and Williamson, 1986.
23. See, for example, Corden, 1988, and Dooley, 1988.
24. These proposals have been made by Lancaster, 1989.

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