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Macroeconomic Reform and Growth in Africa

Adjustment in Africa Revisited

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Improved macroeconomic policies in Sub-Saharan African countries are still associated with improved performance, but countries fall short of having sound policies. Only steady and increased policy reform will convince investors of the credibility of reform and thus of a more favorable investment climate.

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Summary findings

The 1994 World Bank study *Adjustment in Africa: Reforms, Results, and the Road Ahead* assessed the extent of, and economic payoffs from, policy reform in 29 countries in Sub-Saharan Africa in the mid-1980s and 1990s. Here Bouton, Jones, and Kiguel update the results of that report with 1992 macroeconomic data and explore some issues in more detail.

The conclusions of the earlier report still hold: Improved policies are still associated with improved performance, but countries fall short of having sound policies. In fact, the 1991–92 policy stance was not as strong as the 1990–91 stance, reflecting the slow, fragile, and often reversal-prone nature of macroeconomic reform in Africa.

Getting the real exchange rate right and reducing the fiscal deficit should be the top priority for restoring growth. Countries that significantly reduced their budget deficits and reduced the black market premium (by devaluing) enjoyed the greatest payoffs from reform. Devaluation of the CFA franc in January 1994 represents a real opportunity for the CFA franc zone countries to restore growth.

Many countries have made considerable progress in moving toward competitive real exchange rates. There still remains the challenge of reducing budget deficits in ways consistent with poverty-reducing growth. Hence the need to reorient public spending to the essential tasks of government, especially providing social services. Reform in two areas will be important to sustaining fiscal reform: implicit subsidies to public enterprises must be cut, and the cost of restructuring the banking sector must not be absorbed by the budget.

Policy reforms undertaken so far have paid off in higher growth rates, but the level of growth is still too low to sustain rapid rates of poverty reduction. Increased growth seems to have come more from efficient use of existing capacity than from new investment. Only steady and increased policy reform will convince investors of the credibility of reform and thus of a more favorable investment climate.

This paper — a product of the Macroeconomics and Growth Division, Policy Research Department — is part of a larger effort in the department to understand the links between policy reform, growth, and poverty reduction. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rebecca Martin, room N11-059, extension 39026 (pages). December 1994.

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by

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Macroeconomic Reforms and Growth in Africa:

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Macroeconomic Reforms and Growth in Africa: Adjustment in Africa Revisited

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1. Many African countries initiated reform programs in the mid 1980s to remedy their severe balance of payments problems and reverse their economic decline. The recent World Bank study Adjustment in Africa: Reforms, Results, and the Road Ahead (World Bank, 1994) assessed the extent of policy reform and its economic payoffs in twenty-nine countries in Sub-Saharan Africa. It found that many countries had undertaken substantial macroeconomic and other policy changes which helped to restore growth. But even with the policy changes, policies in these countries were still far from what is considered to be conducive to sustainable economic growth. In this paper we update the results of Adjustment in Africa with the 1992 macroeconomic data and explore a few issues in more detail. The conclusions of the earlier report still hold: improved policies are still associated with better performance, but countries fall short of having sound policies. In fact, there was an overall deterioration in the 1991-92 policy stance compared with the 1990-91 stance, indicating the fragile, slow and often reversal-prone nature of macroeconomic reform in Africa. The 1992 drought in Southern Africa may be partly responsible for several countries' lack of progress on improving the policy stance, but the fact remains that many countries, even in 1992, were still far from having sound policies. Only in 1994, with the devaluation of the CFA franc, is there likely to be a large improvement in the policy stance.

2. As in Adjustment in Africa, we analyze progress in macroeconomic reform from two perspectives, using the 1992 macroeconomic and national accounts data that have recently become available. First we evaluate how much progress countries have made relative to their initial positions. Second, we assess how macroeconomic policies compare to those that are generally considered to be sound or conducive to sustained macroeconomic growth. The objective is to evaluate how far countries have come, and how much farther they have to go to reach the macroeconomic "policy frontier." For comparative purposes, countries that have, for example, a black market premium for foreign exchange and an inflation rate of less than 10 percent and an overall budget deficit of less than -1.5 percent are considered to be at the policy frontier. Changes in policies are then related to changes in performance to assess the payoffs to reform. The sample of countries remains the same as in Adjustment in Africa -- those countries that implemented adjustment programs at some point during the period 1987-1991, excluding the strife torn and very small island economies.[1]

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[1] In addition to the small economies of Cape Verde, Comoro, Djibouti, Equatorial Guinea, Sao Tome and Principe and the Seychelles, the study excluded Angola, Ethiopia, Liberia, Somalia, Sudan and Zaire because of the extent to which civil unrest has affected their economies. Botswana, Lesotho, Mauritius, Namibia, South Africa and Swaziland were also excluded from the study because they had a tradition of better policies and were less affected by the external problems of the early 1980s. For more information on country coverage see Box Table 1.3 of Adjustment in Africa (World Bank, 1994).

The Need for Macroeconomic Policy Reform

3. In the mid 1970s GDP growth had begun to stagnate or turn down in many Sub-Saharan African economies. The situation worsened in the first half of the 1980s, with further deteriorations in the terms of trade and sharply reduced access to international finance. While there is no single explanation for Africa's poor economic performance, poor policies played a major role. Inappropriate fiscal policies contributed to the economic crisis. The increase in export revenues in many countries during the commodity booms of the second half of the 1970s led to large increases in public expenditures. The ratio of government consumption to GDP increased steadily since the early 1960s, reaching a peak in the late 1970s, exceeding those in other regions by around 50%. Governments failed to adjust their levels of expenditures to the decline in revenues that occurred when the commodity booms ended. As a result, fiscal deficits increased in many countries, often resulting inflationary financing or the accumulation of large arrears on domestic and external debt. Inflation led to an appreciation of the real exchange rate, with negative consequences for export producers. The expansion of the state into the productive sector also contributed to the crisis. In the 1970s governments began to nationalize enterprises and financial institutions and adopt a panoply of controls, regulations and licensing procedures. The expansion of the public and parapublic sectors constrained private initiative and undermined macroeconomic stability while providing huge rents to the elites.

4. The downturn in the terms of trade and the debt crisis in the early 1980s exposed the weaknesses of the policy regime. The decline in the terms of trade reduced export revenues and increased fiscal and current account deficits. External debt kept mounting from already high levels and countries increased foreign borrowing to cover their deficits. The foreign exchange crises worsened, as countries imposed exchange controls to deal with the external imbalance rather than devalue their exchange rates. Without adjustments in the official exchange rates, the economies were caught in a vicious circle. Increases in the parallel market premium for foreign exchange reduced incentives for exporters to go through official channels and thus led to further deteriorations in the trade balance, forcing the authorities to impose even tighter import restrictions. Fewer imports and a worsening of export prices in domestic currency terms reduced the supply of official exports, leading to a further increase in the premium. Growth rates plummeted.

5. The crisis took a somewhat different form in the CFA countries. They too experienced a decline in their terms of trade, increasing external imbalances, and overvalued real exchange rates, but because of the particular institutional arrangements of the franc zone which guarantee the convertibility of the CFA, they did not impose foreign exchange controls. The deterioration in their international competitiveness contributed to the severe recession that took hold in these countries during the second half of the 1980s.

6. By the mid-1980s many African countries were caught in a severe economic crisis. Their economies were in decline, there were severe external imbalances, and distorted policies exacerbated the problems. After peaking in 1977, real GDP per capita in Sub-Saharan Africa fell 15% between 1977 and 1985. By the mid-eighties there were no clear signs that the decline in income would stop. Faced with severe macroeconomic imbalances and economic recession, countries were forced to look for new strategies to restore macroeconomic balances and bring about economy recovery. They began to implement reform programs aimed at creating the conditions for sustainable, broad-based growth. The programs focused on restoring macroeconomic stability and removing the supply side constraints that

inhibited growth. The macroeconomic components of these programs sought to tighten fiscal and credit policies to reduce overall expenditure in the economy while bringing about a real devaluation of the currency to expand production in the tradable sector and complement the expenditure-reducing effect of tight monetary and fiscal policies. The extent of policy reform varied considerably, depending on each country's initial conditions and its assessment of whether the reforms were necessary, useful, and politically feasible.

Measuring Improvements in Macroeconomic Policies

7. By 1987, over half the countries in our sample had initiated reform programs, with the rest to follow during the next five years, at least on paper. Macroeconomic reforms were a key part of every program. But how much reform actually took place? To answer that question, Adjustment in Africa constructed a set of indicators to assess changes in exchange rate, monetary and fiscal policies. It also developed indicators of macroeconomic policy stance as a way to assessing how much additional change was needed. This paper presents the results of the indicators updated with 1992 data.[2] It confirms the key finding of Adjustment in Africa, namely that improvements in policy in 1987-92 relative to 1981-86, while in some cases quite significant, were not sufficient to establish a policy stance conducive to sustained growth. Countries have come a long way, but they still have a long way to go, as the following discussion of changes in exchange rate, fiscal and monetary policies shows.

. **Exchange rate policy**

8. Indicators. Correcting exchange rate misalignment is the principal goal of exchange rate policy. Overly expansionary monetary and fiscal policies in many Sub-Saharan African countries led to an appreciation of the real exchange rate that reduced incentives for the production of tradable goods. In addition, declining terms of trade also led to a structural misalignment, necessitating a real exchange rate depreciation to restore competitiveness and macroeconomic equilibrium. However, the very different exchange rate regimes in the region call for different methods of assessing the exchange rate policy stance. For the group of countries that had effective recourse to a nominal devaluation of their currencies during this period—countries outside the franc zone—the black market premium is often used as an indicator of exchange rate policy. The black market premium is an imperfect indicator of the extent of overvaluation, since it is sensitive to temporary shocks that may have little or not effect on the underlying fundamental REER, and it also reflects the risks of transactions in the parallel market.[3] However, a high sustained premium is strongly suggestive of overvaluation and thus serves as a very useful proxy. Thus, we use the change in the black market premium, as well as its level, as key indicators of changes in exchange rate policy and stance. We also include the change in the REER in constructing the index of exchange rate policy change, as it provides a measure of the extent to which macroeconomic policies shifted incentives in favor of the tradable sector. A sustained decline in the premium and a depreciation of the REER indicate that exchange rate policy is moving in the direction of correcting the misalignment of the real exchange rate.

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[2] Annex A discusses how data revisions and the inclusion of the 1992 affect the macroeconomic policy scores.

[3] See Kiguel and O'Connell (1994).

9. For countries in the franc zone, the black market premium is not a useful indicator of the extent of exchange rate misalignment. Although for all intents and purposes no parallel foreign exchange market existed in the CFA countries because of the guaranteed convertibility of the CFA franc, the real exchange rate was considered to be overvalued in the second half of the 1980s and early 1990s, in the sense that it was out of line with the fundamentals, especially with the decline in the terms of trade. While changes in the REER index can be used to assess the extent to which incentives were shifted in favor of the tradeable sector, the REER cannot be used directly to assess the extent of real exchange rate overvaluation. Adjustment in Africa developed a simple indicator based on a comparison of the extent of real depreciation in CFA countries with a group of countries outside Africa that experienced similar terms of trade shocks. The methodology is described below in the evaluation of exchange rate policy stance in CFA countries.

10. Changes in exchange rate policy. Sub-Saharan African countries needed to effect a real depreciation in light of changes in terms of trade and other macroeconomic fundamentals. How much improvement has there been in changing relative prices in favor of the tradable sector? Because of the differences in initial conditions (by and large the non CFA countries entered the 1980s with significantly more overvalued real exchanges than the CFA countries) and the policy levers that were available to them during this period, it is not surprising that there are considerable differences between the non-CFA and the CFA franc zone countries regarding the size of depreciation in their REERs. As shown in table 1 and figure 1, on average, non-CFA adjusting countries managed to achieve large real depreciations between 1981-86 and 1987-92, with an average real depreciation of almost 99% between the two periods. In contrast, the CFA countries on average actually experienced a small real appreciation during this period, and reversed it only with the nominal devaluation of the CFA franc in January 1994.

11. There are two main explanations for the disparity in outcomes between the two groups. First, their initial conditions differed. Non-CFA adjusting countries initially had markedly overvalued exchange rates, which were defended primarily through foreign exchange rationing and trade restrictions, as evidenced by the high parallel market premiums. They clearly needed real depreciations to deal with their highly distorted policy regimes, even before they were hit by terms of trade shocks in the late seventies and early 1980s. In contrast, the real exchange rates in the CFA countries were less overvalued entering the 1980s. The growth performance of the franc zone countries was generally better than that of the highly distorted economies outside the zone in the 1970s and first half of the 1980s. In fact, the franc zone countries experienced a real depreciation between 1980 and 1985 as the dollar strengthened against the French franc, partially compensating for the losses in export revenues resulting from the fall in terms of trade during the first half of the decade. As they entered the second half of the 1980s, the franc zone countries needed a smaller real depreciation than did most of the countries outside the franc zone, but as the terms of trade declined further and the CFA franc appreciated vis-a-vis the dollar, their real exchange rates became increasingly less competitive. Hence, the CFA countries, like the non-CFA countries, still needed to depreciate their real exchange rates, even if the magnitude of the required depreciation was smaller.

12. The franc zone countries found it difficult to achieve a real depreciation of the required magnitude because the "internal adjustment" (e.g. without a nominal devaluation) strategy they followed up to early 1994 to achieve a real depreciation was less effective than the combination of policies used by countries outside the franc zone. The non-CFA countries relied heavily on nominal devaluations to bring

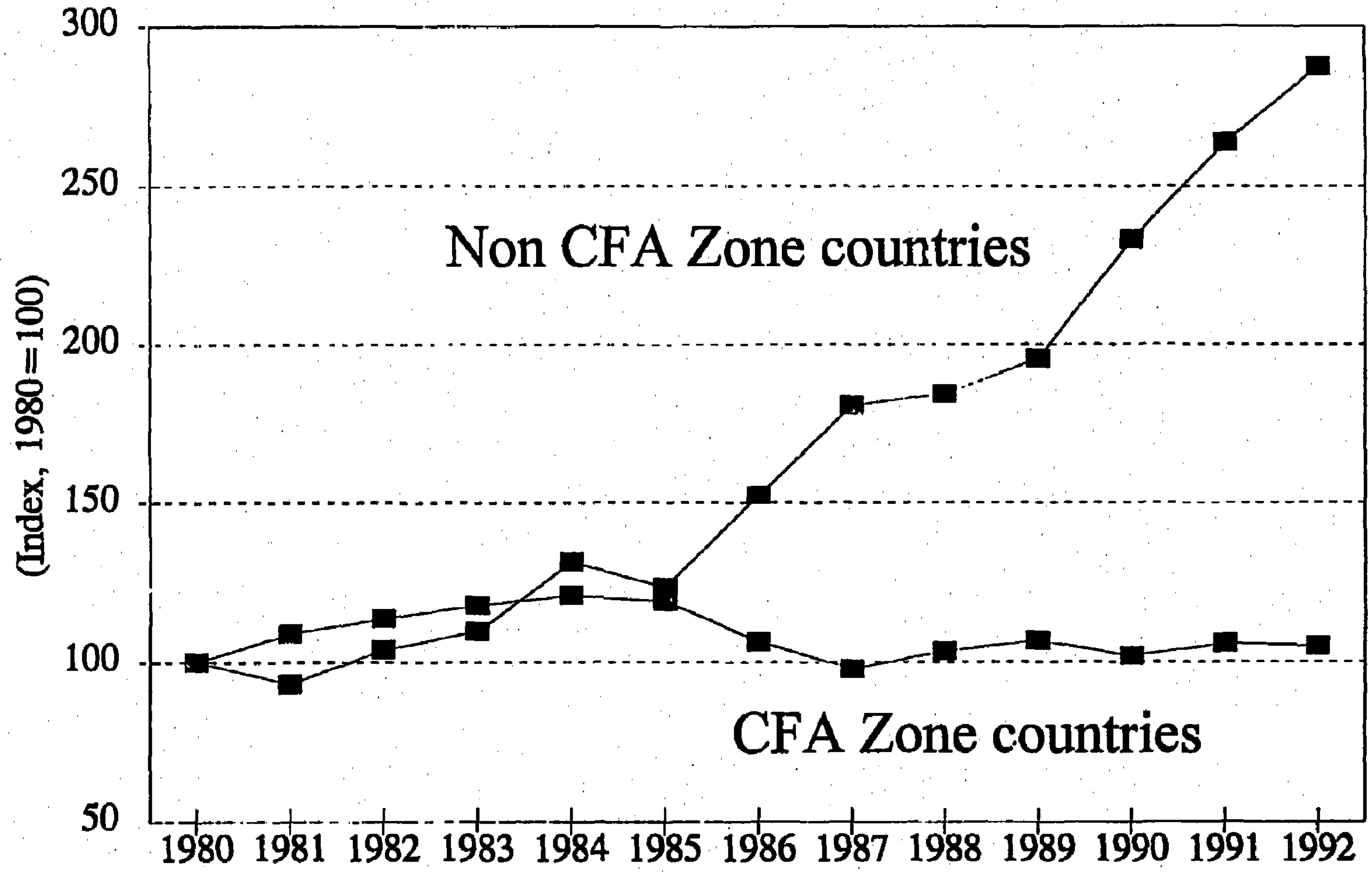
Table 1. Change in the Real Effective Exchange Rate

Country	Percent change from 1981-86 to 1987-92	from 1980 to 1990	from 1980 to 1991-92
Fixed Exchange Rate Countries			
Benin	-10.9	14.0	12.4
Burkina Faso	-3.8	12.3	14.9
Cameroon	-32.2	-26.3	-31.4
Central African Republic	4.0	7.9	17.0
Chad	-12.3	0.5	4.1
Congo	-5.8	-6.0	-10.0
Cote d'Ivoire	-25.5	-3.3	-2.4
Gabon	-0.9	6.2	18.4
Mali	-9.5	8.8	11.9
Niger	7.1	22.0	36.6
Senegal	-13.1	-5.3	-0.9
Togo	-3.9	7.5	10.9
Mean	*-8.9*	*3.2*	*6.8*
Median	*-7.6*	*6.9*	*11.4*
Flexible Exchange Rate Countries			
Burundi	59.5	29.8	41.4
Gambia	21.3	37.3	42.2
Ghana	255.1	380.2	390.7
Guinea	NA	NA	NA
Guinea-Bissau	NA	NA	NA
Kenya	31.0	43.0	42.7
Madagascar	98.0	93.0	114.6
Malawi	8.0	9.7	9.2
Mauritania	32.6	20.7	18.1
Mozambique	107.2	27.0	73.5
Nigeria	369.9	252.2	361.0
Rwanda	18.8	-16.6	12.3
Sierra Leone	66.2	22.8	28.2
Tanzania	261.1	171.9	176.3
Uganda	66.6	831.1	1173.8
Zambia	23.1	35.0	47.6
Zimbabwe	60.0	61.1	103.7
Mean	*98.6*	*133.2*	*175.7*
Median	*60.0*	*37.3*	*47.6*

Note: An increase in the index indicates a real depreciation of the real effective exchange rate.
Source: IMF and World Bank Staff estimates.

Figure 1

Real Effective Exchange Rates in Sub-Saharan Africa



Note: Country groups are unweighted averages. An increase in the index indicates a depreciation of the REER.
Source: IMF and World Bank staff estimates.

about a real depreciation. Since the countries in the franc zone eschewed recourse to a nominal devaluation until early 1994, they were forced to rely solely on tight fiscal and monetary policy to bring about a real depreciation. Keeping domestic inflation below international levels proved to be a very slow way at best of depreciating their currencies in real terms, given the rigidities in wages and the price of nontradables. The task was made even harder by the depreciation of the U.S. dollar relative to the French franc following the Plaza Accords in the 1985 and the deceleration of international inflation.

13. The progress made by the non-CFA countries in depreciating their real exchange rates is also reflected in the evolution of their parallel market premiums. Many countries have achieved significant progress in reducing the premium since the mid-1980s. No country in the region still has the exorbitant three- and four-digit premiums of the early 1980s. Table 2 shows the average exchange rate premiums for 1981-86 and 1987-92. The average premium in the non-CFA adjusting countries fell from 284% in 1981-86 to 79% in 1987-92 and by 1993 had fallen further to 33%. Particularly impressive were the reductions in Mozambique (from 1899% in 1981-86 to 46% in 1987-92), Ghana (1098% to 17%), Guinea (656% to 6%), Tanzania (249% to 74%), and Nigeria (222% to 37%). Not surprisingly, countries that effected large real depreciations (Ghana experienced a real depreciation of 391%, Nigeria, 361% and Tanzania, 176%) also reduced their premiums significantly. This indicates that the official exchange rate was way out of line in the pre-reform period, and that large nominal depreciations were successful in reducing the distortion.

14. In other countries, the reduction in the premium has been less dramatic. In some countries the changes in either direction were relatively moderate. Most of these countries started with low or moderate premiums, and hence it would have been unreasonable to a large change in the premium. The Gambia, Madagascar, and Malawi — among others — fall in this group. Other countries, such as Zambia and Sierra Leone, experienced a large increase in their premium in 1988-89 but were able to reduce them by the early 1990s. And in a third group of countries, there had been a deterioration in performance: in Rwanda, Kenya and Burundi, for example, premiums have risen since the mid-1980s.

15. <u>Exchange rate policy stance</u>. Many countries took steps to improve their exchange rate policies. But were the changes sufficient to restore macroeconomic balances and competitiveness? For the non-CFA countries, we use the black market premium as the indicator of the extent to which countries have had a realistic exchange rate policy. The size of the premium is one indicator of how much adjustment is needed. We classify the non-CFA countries in four categories based on the size of their premium in 1991-92: small premium (less than 10%), moderate premium (more than 10% and less than 30%), high premium (more than 30% and less than 50%), and extreme premium (more than 50%). As can be seen from table 3, countries made progress in 1991-1992 in reducing overvaluation compared to their performance in 1990-91, the reference period used in <u>Adjustment in Africa</u>. In 1993, however, Nigeria, Uganda and Guinea all experienced policy reversals with an increase in the black market premium.

16. As noted above, there is essentially no parallel market for foreign exchange in the CFA countries, and hence no black market premium. Thus another indicator is needed to assess whether their exchange rates policies are misaligned. <u>Adjustment in Africa</u> used a simple methodology to obtain a gross assessment of the overvaluation, which consisted of comparing the extent of real effective rate depreciation in the franc zone countries with a group of comparator countries that experienced roughly the

Table 2. Parallel Market Exchange Rate Market Premium

Country	Average 1981-86	1987-92	1991-92	1993
Burundi	24.1	25.0	45.2	41.2
The Gambia	4.7	7.7	-4.2	2.5
Ghana	1098.2	16.5	5.5	1.4
Guinea	656.1	6.0	5.6	21.5
Guinea-Bissau	59.7	4.2	-8.8	4.7
Kenya	15.1	26.6	57.9	32.0
Madagascar	42.0	15.7	19.1	9.5
Malawi	53.5	27.7	39.1	32.4
Mauritania	94.1	167.2	149.0	81.2
Mozambique	1899.1	45.5	1.7	-4.6
Nigeria	222.0	36.5	34.6	128.5
Rwanda	43.7	47.0	82.6	102.9
Sierra Leone	49.3	388.9	66.9	16.9
Tanzania	248.8	73.8	45.2	1.7
Uganda	189.4	126.7	13.2	33.6
Zambia	45.7	281.6	43.3	33.3
Zimbabwe	81.3	41.8	31.1	22.2
Mean	*283.9*	*78.7*	*36.9*	*33.0*
Median	*59.7*	*36.5*	*34.6*	*22.2*

Note: The parallel market exchange rate premium is calculated as the percentage difference between the parallel market exchange rate and the official exchange rate (in domestic currency at the end of the period). Data are for the non-CFA countries only.
Source: International Currency Yearbook and IMF, IFS.

Table 3. Black Market Premium in the 1990s

	1990	1991	1992	1993	Average 1991-92
Extreme Premium in 1991-92					
Mauritania	169.8	163.4	134.6	81.2	149.0
Rwanda	28.0	67.0	98.3	102.9	82.6
Sierra Leone	165.0	43.7	90.0	16.9	66.9
Kenya	5.9	8.6	107.1	32.0	57.9
High Premium in 1991-92					
Tanzania	78.0	71.0	19.4	1.7	45.2
Burundi	5.8	36.1	54.3	41.2	45.2
Zambia	211.9	87.3	-0.7	33.3	43.3
Malawi	14.5	44.4	33.8	32.4	39.1
Nigeria	23.4	26.8	42.5	128.5	34.6
Zimbabwe	14.9	32.0	30.3	22.2	31.1
Moderate Premium in 1991-92					
Madagascar	7.1	31.0	7.3	9.5	19.1
Uganda	39.8	9.3	17.1	33.6	13.2
Small Premium in 1991-92					
Guinea	12.5	2.7	8.4	21.5	5.6
Ghana	7.3	-0.4	11.4	1.4	5.5
Mozambique	94.0	-1.6	5.0	-4.6	1.7
Gambia, The	2.6	-7.0	-1.4	2.5	-4.2
Guinea-Bissau	-2.3	11.3	-28.9	4.7	-8.8

Note: The parallel market exchange rate premium is calculated as the percentage difference between the parallel market exchange rate and the official exchange rate (in domestic currency at the end of the period). Data are for the non-CFA countries only.
Source: International Currency Yearbook and IMF, IFS.

same movement in their terms of trade and started with roughly similar degrees of overvaluation.[4] Non-CFA adjusting countries are not very helpful for this purpose because they started with grossly overvalued exchange rates. Instead we use a set of other, non-African, developing countries that are primarily exporters of primary products and that did not have a significant parallel premium.[5] The underlying working assumption is that since countries in the CFA group and countries in the control group faced similar declines in the terms of trade, they should have depreciated their real exchange rates by roughly the same amount to adjust to the decline in their terms of trade, all other things being equal.

17. The average real depreciation (in domestic currency terms) between 1980 and 1990 was 60% in the control group, compared with an *appreciation* of 2% in the CFA economies (see table 1). Judged by this criterion, the real depreciation in the CFA zone has lagged behind that of other developing countries. Because of differences in their inflation rates and differences in their trading partners, there is of course variation within the zone: at one extreme, the real depreciation in Benin was 11%; at the other extreme in Cameroon there was a 20% real appreciation, in Congo 10% and in Senegal 6%.[6] In countries outside the region we find real depreciation of 60% in Morocco, 45% in Tunisia, 50% in the Philippines, 104% in Indonesia, 25% in Malaysia and Thailand, 70% in Bolivia and Costa Rica, and 122% in Colombia. A few non-CFA adjusting countries have maintained relatively sound macroeconomic policies and could be relevant comparators. Among them are Kenya, where the real depreciation was 43%, and Burundi, with a real depreciation of 30% (though in this country the premium increased, suggesting that it may need a larger depreciation). None of the CFA countries was judged as having a good or adequate exchange rate policy as of end-1992, though following the 100 percent nominal devaluation of the CFA franc relative to the French franc (in local currency terms) in January 1994, they have experienced a substantial improvement in their exchange rate policy stance.

Fiscal Adjustment

18. Indicators. No one fiscal indicator can adequately summarize the changes in fiscal policy or the current stance. A thorough analysis requires making judgments about current policies, and more importantly, about their sustainability. A low budget deficit on a cash basis, maintained by building up domestic and foreign arrears or by compressing public investment to unacceptably low levels, does not mean fiscal policy is prudent because it clearly is unsustainable and works against growth. Likewise, even a small reduction in the budget deficit might be evidence of a big fiscal effort if the reduction is effected through durable expenditure cuts and equitable and less distortionary tax increases. In addition, there are

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4 This provides only a very rough estimate based on average extent of depreciation in the group of comparator countries. First, there are differences among the CFA franc zone countries in the extent of overvaluation even in the early 1980s and in the size of the terms of trade shock they received. Such differences in the fundamentals would affect the size of the needed depreciation. Second, while we attempted to pick a group of comparator countries that were roughly similar to the CFA franc zone both in the initial degree of overvaluation and terms of trade evolution, there may be other differences in the fundamentals (such as long-term capital inflows or different trade regimes) that would affect the comparison.

5 See Chapter 2, footnote 14, p. 60 of Adjustment in Africa.

6 Niger also shows a large real deprecation, but this result is not consistent with other information on the degree of real overvaluation in Niger. Niger is a difficult case in part because of the very large (and often unrecorded) cross-border trade with Nigeria, which makes it difficult to determine the appropriate trade weight to give to Nigeria in calculating the REER.

significant data problems: most African countries have only fiscal data for the central government, while a large part of the fiscal problem lies in the public enterprise sector.

19. For the purposes of ranking countries according to the degree of improvement in their fiscal policy, we look at the progress in reducing the overall fiscal deficit (before grants). This gives some indicator of the *domestic* efforts being made to close the fiscal gap. We also take into account whether there was a major effort to increase revenues, and give an extra point in scoring the change in fiscal policy to a country that improved its fiscal deficit by increasing revenues significantly. Conversely, for those countries in which there was a significant decline in revenues, we subtract a point from the fiscal policy score. The idea here is that in many countries it is probably more beneficial to reduce the fiscal deficit by raising revenues through a broadening of the tax base than to cut the overall level of expenditure. With the relatively low share of public investment, the overall level of expenditure in many countries is now not considered to be highly out of line, while tax revenues as a share of GDP tend to be low in comparison to other regions. An additional adjustment to the scoring could be made to reflect improvements in the pattern of expenditure. This was not attempted, both for lack of data and also for lack of clear norms about what patterns of public expenditure are associated with higher growth. Another difficulty, evident in Mozambique for example, is the case where the fiscal deficit before grants increases because of a large increase in donor-financed capital expenditures. While increasing dependence on grants raises questions about the sustainability of the fiscal position, an increase in the deficit due to donor financing of capital expenditure is presumably more likely to be growth-enhancing than, say, increase in the deficit due to an increase in the wage bill. The scoring system does not differentiate between these cases, as it focuses only on domestic efforts to reduce the deficit.

20. In assessing the fiscal policy stance we look at the change in the overall deficit *including* grants, which shows the amount of financing needed. Because most countries have limited access to domestic and foreign financing, this indicator measures the potential risks of governments resorting to inflationary finance or looking for other distortionary ways to finance themselves domestically (such as incurring arrears with government suppliers or taxing the financial sector). The higher the budget deficit after grants, the further we assume a country is from having sound and sustainable fiscal policy. However, it should be recognized that heavy reliance on external grants even in a country that has a low fiscal deficit may still raise questions about the soundness of a country's fiscal policy, given the fragility of external assistance.

21. <u>Change in fiscal policy</u>. On average, efforts to reduce the fiscal deficit have not been successful. Between 1981-86 and 1987-92 the fiscal deficit excluding grants increased slightly on average for countries in the sample (see table 4). This was the result of the failure to reduce overall fiscal expenditures by more than the fall in fiscal revenues. Government revenues fell on average by approximately 1.4 percentage point of GDP between 1981-86 and 1987-92 while overall expenditures fell 0.8 percentage point of GDP. The reduction in expenditures came about largely through the reduction in capital expenditures and net lending as current expenditures experienced a small increase over this period.

22. It is useful to look at differences in performance between the CFA and the non-CFA countries, since the internal adjustment strategy followed by the CFA countries relied heavily on fiscal policy to achieve a real depreciation of the exchange rate. In spite of this, the CFA countries were not as successful as the non-CFA countries in adjusting their fiscal policies in support of growth. On average, the non-CFA countries increased their tax revenues, on average around 0.9 percentage points of GDP, and they increased capital expenditures by 0.8 percentage points, leading to a small net improvement in their

Table 4. Fiscal Policy

	Overall Fiscal Deficit Excluding External Grants				Overall Fiscal Deficit Including External Grants			
	Average Percentage of GDP			Difference between 1981-86 and 1987-92 (percentage points)	Average Percentage of GDP			Difference between 1981-86 and 1987-92 (percentage points)
Country	1981-86	1987-92	1991-92		1981-86	1987-92	1991-92	
Benin	-13.7	-9.4	-7.5	4.3	-8.5	-6.4	-5.1	2.1
Burkina Faso	-16.4	-8.2	-6.6	8.2	-9.0	-2.8	-2.7	6.2
Burundi	-12.3	-15.6	-21.0	-3.3	-8.5	-9.3	-12.6	-0.7
Cameroon	0.5	-7.9	-7.2	-8.4	0.5	-7.9	-7.2	-8.4
Central African Republic	-7.5	-14.7	-17.0	-7.2	-4.3	-7.3	-10.1	-2.9
Congo	-7.6	-13.4	-17.1	-5.8	-7.3	-13.3	-16.9	-6.0
Cote d'Ivoire	-6.4	-13.5	-13.6	-7.1	-6.4	-13.5	-13.6	-7.1
Gabon	0.2	-7.6	-4.0	-7.8	0.6	-7.2	-3.7	-7.8
Gambia, The	-13.9	-8.6	-4.3	5.3	-4.7	0.8	2.9	5.5
Ghana	-4.6	-5.9	-7.4	-1.3	-4.3	-4.6	-6.0	-0.3
Kenya	-7.3	-6.5	-6.2	0.8	-7.3	-4.6	-4.6	2.7
Madagascar	-6.3	-5.0	-7.1	1.4	-5.8	-3.7	-6.0	2.1
Malawi	-11.4	-8.5	-10.7	2.9	-8.4	-4.7	-8.3	3.7
Mali	-12.8	-10.7	-11.7	2.1	-7.7	-5.0	-5.8	2.8
Mauritania	-5.2	-2.2	-1.3	3.0	-4.3	-0.4	0.8	3.9
Mozambique	-16.2	-26.4	-29.5	-10.2	-13.7	-9.0	-5.4	4.7
Niger	-7.9	-9.7	-8.6	-1.8	-4.3	-5.8	-6.8	-1.5
Nigeria	-5.8	-7.5	-8.8	-1.7	-5.8	-7.5	-8.8	-1.7
Rwanda	-7.1	-11.6	-15.4	-4.5	-3.7	-7.1	-7.8	-3.4
Senegal	-7.0	-2.4	-0.3	4.6	-6.0	-1.0	1.1	5.0
Sierra Leone	-13.2	-10.9	-9.6	2.3	-12.0	-7.7	-4.3	4.3
Tanzania	-11.0	-5.8	-2.8	5.2	-8.5	-0.5	0.6	8.0
Togo	-7.0	-6.4	-5.2	0.6	-3.6	-4.3	-3.8	-0.7
Uganda	-6.0	-7.2	-11.2	-1.2	-5.3	-3.2	-3.5	2.1
Zambia	-15.2	-13.2	-13.1	2.0	-14.4	-9.0	-4.3	5.4
Zimbabwe	-10.1	-10.2	-9.1	-0.2	-8.6	-8.8	-7.7	-0.3
Mean	-8.9	-9.6	-9.8	-0.7	-6.6	-5.9	-5.7	0.7
Median	-7.6	-8.5	-8.7	0.2	-6.2	-6.1	-5.6	2.1
CFA countries								
Mean	-7.8	-9.4	-9.0	-1.7	-5.1	-6.8	-6.8	-1.7
Median	-7.5	-9.4	-7.5	-1.8	-6.0	-6.4	-5.8	-1.5
Non-CFA countries								
Mean	-9.7	-9.7	-10.5	0.0	-7.7	-5.3	-5.0	2.4
Median	-10.1	-8.5	-9.1	0.8	-7.3	-4.7	-5.4	2.7

Source: IMF and World Bank Staff estimates.

overall fiscal deficit (excluding grants). In contrast, the pattern was reversed in the CFA countries. On average, they had a large losses in revenues (4.5 percentage points of GDP), large decrease in capital expenditures (2.8 percentages points of GDP), and a small increase in current expenditures. The result was an overall increase in their fiscal deficits. The changes in fiscal policies--with heavy reliance on cuts in capital expenditures rather than in the wage bill--were not sufficient to bring about a real depreciation of the exchange rate in a short period. The failure to restore competitiveness, together with the large cuts in investment spending, led to a deep economic recession in the late 1980s. The recession in turn undermined tax collection efforts which led to a further deterioration in fiscal policy. These policies created a vicious circle, much like the vicious circle engendered by the strategy followed by the non-CFA countries in the early 1980s of dealing with balance of payments crises by imposing stricter foreign exchange and trade controls, which led to even greater evasion of the official channels, further aggravating undermining their balance of payments problems.

23. Fiscal stance. As can be seen from Table 5, progress has been mixed in correcting the initial fiscal imbalances. By and large, adjusting countries in the region improved their fiscal performance in the second half of the eighties, as the average deficit (including grants) was reduced by about 1 percentage point of GDP (from 6.6 percent of GDP in 1981-86 to 5.7 percent of GDP in 1991-92). Thus on average, countries moved closer to the policy frontier, although the average improvement disguises important differences across countries. While Burkina Faso, The Gambia, Tanzania, and Zambia reduced their deficits by more than 5 percentage points of GDP, Cameroon and Cote d'Ivoire experienced increases of similar magnitudes. Again, there was a net difference in the performance of the CFA and non-CFA countries, related to the adjustment pursued by the two groups. The fiscal stance of the CFA countries worsened as the recession took hold. The higher deficits were financed partly by external borrowing and partly by the development of huge internal arrears, further contributing to the economic recession of the zone. Although the average fiscal deficit in the CFA countries was smaller than in non-CFA countries in the first half of the 1988, by 1991-92 deficits in the CFA countries were larger.

Monetary Policy

24. Indicators. The main goals of monetary policy are to maintain low rates of inflation and suitable levels of economic activity. Many studies associate the rate of growth of monetary aggregates with monetary policy. This approach has important weaknesses, however, as it does not deal with the causality between monetary growth and inflation. In most countries monetary growth is highly correlated with inflation, especially in the longer term, but this does not indicate whether money "causes" (the causality running from money to inflation) or if it "accommodates" (the causality running from inflation to money) inflation. Thus, while countries with rapid expansion of money are generally considered as having loose monetary policy and those with low rates of growth are considered to have tight monetary policy, this is not always the case. Some countries might have tight money while money grows at high rates because the rate of money growth does not fully accommodate inflation (i.e. money grows less than inflation and interest rates are high), while others might follow expansionary monetary policy while having apparently low rates of monetary growth that nonetheless are inflationary.

25. A better indicator of whether monetary policy is supportive of a stable macroeconomic environment is the degree to which governments rely on printing money to finance budget deficits. This is

Table 5. Fiscal Revenues and Expenditures

	Total Revenue				Total Expenditure				Capital Expenditure & Net Lending				Current Expenditure			
	Average Percentage of GDP			Difference between 1981-86 and 1987-92 (percentage points)	Average Percentage of GDP			Difference between 1981-86 and 1987-92 (percentage points)	Average Percentage of GDP			Difference between 1981-86 and 1987-92 (percentage points)	Average Percentage of GDP			Difference between 1981-86 and 1987-92 (percentage points)
Country	1981-86	1987-92	1991-92		1981-86	1987-92	1991-92		1981-86	1987-92	1991-92		1981-86	1987-92	1991-92	
Benin	14.9	11.4	11.9	-3.4	28.5	20.8	19.4	-7.7	11.0	5.8	4.7	-5.3	17.5	15.0	14.7	-2.5
Burkina Faso	12.9	12.7	13.3	-0.3	29.3	20.8	19.9	-8.5	15.3	8.2	7.7	-7.1	14.0	12.6	12.2	-1.4
Burundi	13.9	13.4	9.3	-0.5	26.2	29.0	30.3	2.8	13.7	14.6	16.3	0.9	12.5	14.4	14.0	1.9
Cameroon	23.6	16.9	16.7	-6.7	23.1	24.8	23.8	1.7	10.6	7.4	3.6	-3.2	12.5	17.4	20.3	4.9
Central African Republic	13.6	11.4	9.9	-2.2	21.1	26.1	26.9	5.0	6.9	12.6	13.0	5.8	14.2	13.5	13.9	-0.8
Congo	35.1	23.4	25.5	-11.7	42.7	36.8	42.6	-5.9	18.7	5.3	4.4	-13.4	23.9	31.5	38.3	7.6
Cote d'Ivoire	30.6	23.6	22.1	-7.0	36.9	37.1	35.7	0.1	10.0	3.5	3.3	-6.5	26.9	33.6	32.4	6.6
Gabon	33.2	21.5	23.4	-11.7	32.9	29.1	27.4	-3.9	16.7	6.0	5.5	-10.7	16.2	23.1	22.0	6.9
Gambia, The	18.8	21.5	21.2	2.7	32.6	30.1	25.5	-2.6	12.4	10.4	9.0	-2.1	20.2	19.7	16.5	-0.5
Ghana	8.1	13.0	12.5	4.9	11.5	14.6	15.4	3.1	1.7	3.4	4.0	1.7	9.8	11.2	11.4	1.4
Kenya	23.3	23.1	23.5	-0.2	30.6	29.6	29.7	-1.0	7.1	6.5	6.4	-0.6	23.5	23.1	23.4	-0.4
Madagascar	12.5	13.2	11.3	0.7	18.9	18.2	18.3	-0.7	6.6	7.7	7.5	1.1	12.3	10.5	10.9	-1.8
Malawi	20.0	20.1	19.3	0.0	31.4	28.6	30.0	-2.9	8.7	6.5	6.0	-2.2	22.7	22.1	24.0	-0.6
Mali	13.8	15.5	14.6	1.7	26.6	26.1	26.3	-0.5	10.5	11.0	11.5	0.5	16.1	15.1	14.8	-1.0
Mauritania	22.1	23.7	22.0	1.6	27.3	25.9	23.3	-1.4	2.5	5.3	4.0	2.8	24.9	20.6	19.3	-4.3
Mozambique	21.7	21.9	24.7	0.2	37.9	48.3	54.2	10.4	13.8	23.4	26.9	9.6	24.1	24.9	27.3	0.8
Niger	11.4	9.8	8.3	-1.5	19.2	19.5	16.9	0.3	9.0	3.3	1.9	-5.7	10.3	16.2	15.0	6.0
Nigeria	13.1	16.8	19.2	3.7	18.9	24.3	28.0	5.4	9.5	5.7	5.2	-3.7	9.5	18.6	22.8	9.1
Rwanda	12.0	12.5	12.3	0.5	19.1	24.1	27.7	5.0	8.2	8.3	8.6	0.0	10.9	15.8	19.1	4.9
Senegal	18.4	18.0	19.1	-0.4	25.4	20.4	19.4	-5.0	3.8	3.1	3.6	-0.7	21.6	17.3	15.8	-4.3
Sierra Leone	9.4	9.7	12.2	0.3	22.5	20.6	21.7	-2.0	4.3	3.6	4.6	-0.7	18.2	17.0	17.1	-1.3
Tanzania	18.4	20.0	23.0	1.5	29.4	25.7	25.8	-3.7	6.8	4.8	3.6	-2.0	22.7	21.0	22.3	-1.7
Togo	28.1	21.9	17.1	-6.2	35.1	28.3	22.3	-6.8	10.7	7.4	5.0	-3.3	24.4	20.9	17.3	-3.4
Uganda	9.1	6.4	7.3	-2.6	15.1	13.7	18.5	-1.4	2.2	5.7	8.8	3.6	12.9	7.9	9.7	-5.0
Zambia	23.1	17.7	16.8	-5.4	38.3	30.9	29.9	-7.4	4.9	5.6	7.4	0.6	33.4	25.3	22.4	-8.0
Zimbabwe	29.9	35.4	35.8	5.5	40.0	45.7	44.9	5.7	6.0	8.1	8.5	2.1	34.1	37.6	36.4	3.5
Mean	18.9	17.5	17.4	-1.4	27.7	26.9	27.0	-0.8	8.9	7.4	7.3	-1.5	18.8	19.5	19.7	0.6
Median	18.4	17.3	17.0	-0.2	27.9	26.0	26.0	-1.2	8.9	6.2	5.7	-0.7	17.9	18.0	18.2	-0.6
CFA Countries																
Mean	21.4	16.9	16.5	-4.5	29.2	26.3	25.5	-2.8	11.2	6.7	5.8	-4.5	18.0	19.7	19.7	1.7
Median	18.4	16.9	16.7	-3.4	28.5	26.1	23.8	-3.9	10.6	6.0	4.7	-5.3	16.2	17.3	15.8	-0.8
Non-CFA Countries																
Mean	17.0	17.9	18.0	0.9	26.7	27.3	28.2	0.6	7.2	8.0	8.4	0.8	19.4	19.3	19.8	-0.1
Median	18.4	17.7	19.2	0.5	27.3	25.9	27.7	-1.0	6.8	6.5	7.4	0.6	20.2	19.7	19.3	-0.5

Source: IMF and World Bank Staff estimates.

generally measured by seigniorage, the revenue from money creation.[7] As a general rule, the larger the seigniorage, the greater the revenue from money creation, and the higher the rate of inflation, particularly in the long-run. As a general rule, seigniorage in excess of 1.5% of GDP is risky because the economy will eventually fall into a high inflation trap, and seigniorage in excess of 3% indicates major macroeconomic imbalances (Fischer and Easterly, 1990).

26. While there are close links between inflation and seignorage, they don't always move in tandem, especially in the short run. In the short run seigniorage may not be inflationary if it accommodates an increase in the demand for money, if it is mainly transitory, or if there are lags in the transmissions of increases in the money supply to prices. It is useful, therefore, to consider the rate of inflation along with seigniorage in assessing whether countries have improved their monetary policies.

27. Finally, real interest rates are also a useful in understanding the degree of tightness of monetary policy. Positive and very high real interest rates tend to inhibit economic activity excessively while large negative real interest rates are overly expansionary. In Africa, for the most part, interest rates have limited value as an indicator of the tightness of monetary policy because they are generally not market determined, financial markets are thin and the government is usually involved in setting the rates. However, they convey information about whether monetary policy is discouraging savings, through interest rates that are too high and negative, or discouraging growth, through interest rates that are too high and positive. High rates discourage borrowing and can undermine the financial soundness of banks, as borrowers have more difficulty realizing the high profits needed to repay the high interest rates.

28. Changes in monetary policy. Overall, the median rate of inflation and level of seignorage declined slightly in the second half of the 1980s. However, there is much variation among countries. The improvement in Ghana has been notable: though it has only moved from the extremely high seigniorage group in the early 1980s to the high seigniorage group in the early 1990s, the drop in the rate of inflation was considerable. In contrast, Nigeria moved from the moderate group in the pre-reform period to the extreme group more recently. Guinea-Bissau, Mozambique, Sierra Leone and Zambia experienced an acceleration in the rate of inflation. These countries also had high levels of seigniorage.

29. As one would expect, given the fixed exchange rate as a nominal anchor, the CFA countries had very low rates of inflation in the early 1980s and saw a decline in the rates of inflation in the late 1990s as they attempted to effect a real exchange rate depreciation. These countries also had very low rates of seigniorage during 1981-86 and by the 1987-92 period had experienced a large decline in seigniorage. The non-CFA countries, on the other hand, experienced increases in their rates of inflation and seigniorage as their governments struggled to finance worsening fiscal deficits.

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[7] While there are different ways of measuring seigniorage, we use one that attempts to capture the inflationary impact–as opposed to the total revenue–of printing money. The measure used here removes the seigniorage associated with increases in real money demand. Thus the inflationary impact of seigniorage is measured as

$$s = \frac{\Delta(M)}{Y}\ \hat{y}\ \left(\frac{M}{Y}\right)$$

where M is nominal money, Y is nominal GDP and $\hat{y}$ is real GDP growth.

30. Monetary policy stance. Despite the improvements, countries have not been successful in putting in place a set of monetary policies that yield price stability and low real interest rates. As shown in table 6, many countries in Sub-Saharan Africa have inflation rates that are moderately higher than international levels (between 10% and 30%), and thus moderate levels of seigniorage (around 1.5% of GDP). To assess the policy stance, we classified the countries into four groups: low seigniorage (less than 0.5% of GDP), moderate (0.6% to 1.5% of GDP), high (1.6% to 3%), and extreme (higher than 3%). As shown in table 7, all of the countries with low seigniorage, and most of the countries with moderate seigniorage, are as expected, countries of the CFA Zone. Only two of the non-CFA countries (The Gambia and Mauritania) had achieved inflation rates of less than 10% by 1991-92. At the other extreme, we find a few countries (Tanzania, Nigeria, Sierra Leone and Zambia) that have large seigniorage and high inflation. Finally, in Sierra Leone and Zambia, two countries that have had high seigniorage through most of the 1980s, the situation appears to be out of control. Not surprisingly, these countries have inflation rates that are the highest in the sample, approaching 100%, on average, in the second half of the 1980s.

31. As inflation rates came down in many countries, high negative real interest rates were reduced, as shown in Table 8. Some countries, however, notably Nigeria, Sierra Leone and Zambia, still have substantially negative real interest rates, reflecting their continuing high inflation rates. In contrast, many countries have high positive real interest rates (in excess of 3 percent in 1991-92), with the majority of them belonging to the CFA zone. The high rates in these countries are a result of tight monetary and credit policies needed to restrain aggregate demand, to support the fixed exchange rate and to avoid capital outflows. Only a couple of countries had real interest rates in the range of -3 to 3 percent, the range considered to be most conducive to long-term growth.[8] One small modification was made in the scoring real interest rates: in Adjustment in Africa real interest rates were scored from 1(best) to 3(worst), we changed the scoring to 1 to 4 scale to be consistent with the other policy indexes. High negative real interest rates exceeding -15 percent were scored as 4. This did not change the classification of the countries presented in the original report.

Moving to the Policy Frontier: Overall Change in Macroeconomic Policies.

32. In this section we bring together the various indicators that have been used to track the progress countries have made in adopting sound exchange rate, fiscal and monetary policies to create a composite index measuring how much change there has been overall in the macroeconomic policy stance. It is based on the changes in the three key policy indicators: monetary, fiscal and exchange rate policies. There are clear methodological problems in aggregating these indicators to assess the change in macroeconomic policies, since theory tells us very little about the relative weights that should be attached

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[8] Based on cross-country regression results, Easterly (1993) finds that a dummy for financial repression, defined as real interest rates below of -5, had a negative and significant impact on growth. Redefining repression as less than a -2 percent real rate of interest was not significant, though it had a negative sign. The World Development Report, 1989 notes that high and positive interest rates also are bad for growth. However, very high and positive real interest rates are sometimes a relatively short-term phenomenon caused by a rapid decrease in inflation and thus are not always an indicator of major policy distortions. Under the assumption that high negative rates impose a greater burden on growth than high positive rates, we did not give a score of 4 (the worst ranking) to countries with high positive rates, reserving it instead for countries with extremely high negative real interest rates.

Table 6. Seigniorage a.:d Inflation

Country	Seigniorage: Average (Percentage of GDP) 1981-86	1987-92	1991-92	Seigniorage: Difference between 1981-86 and 1987-92 (percentage points)	Inflation: Average (Percent) 1981-86	1987-92	1991-92	Inflation: Difference between 1981-86 and 1987-92 (percentage points)
Benin	0.8	1.2	1.4	0.4	3.5	3.0	6.0	-0.5
Burkina Faso	1.0	0.1	0.1	-0.9	6.2	0.1	0.3	-6.1
Burundi	0.9	-0.1	NA	-1.0	7.7	7.3	6.7	-0.4
Cameroon	0.7	-0.2	-1.1	-1.0	9.6	-0.7	0.1	-10.4
Central African Rep.	1.0	-0.1	-0.3	-1.1	8.6	-2.3	-1.9	-11.0
Chad	1.8	-1.3	-1.1	-3.1	3.2	0.7	-0.9	-2.4
Congo	0.1	0.7	0.7	0.7	9.8	2.8	5.6	-7.0
Cote d'Ivoire	1.1	-0.7	-0.5	-1.8	5.8	3.2	2.6	-2.6
Gabon	0.7	0.0	-0.7	-0.7	9.9	-0.8	-4.6	-10.7
Gambia, The	1.8	1.4	1.9	-0.4	20.7	12.3	9.0	-8.4
Ghana	3.3	2.6	2.3	-0.6	56.0	27.0	14.0	-29.1
Guinea	NA	NA	NA	NA	NA	NA	NA	NA
Guinea-Bissau	NA	5.1	3.5	NA	40.5	72.8	72.5	32.4
Kenya	1.2	1.7	3.5	0.6	12.0	16.1	24.7	4.2
Madagascar	1.6	2.4	3.3	0.8	19.4	14.3	11.6	-5.1
Malawi	1.0	1.8	2.0	0.8	13.3	19.8	17.7	6.5
Mali	1.7	-0.8	0.4	-2.6	6.7	2.0	4.1	-4.7
Mauritania	1.9	1.4	1.1	-0.4	9.0	7.7	9.7	-1.2
Mozambique	NA	NA	NA	NA	17.2	57.7	40.1	40.5
Niger	0.7	-0.4	-0.5	-1.1	6.0	-4.0	-6.1	-10.0
Nigeria	1.1	3.2	5.0	2.1	17.4	30.2	28.8	12.8
Rwanda	0.2	0.4	1.4	0.1	5.3	6.9	14.6	1.6
Senegal	1.1	-0.5	0.1	-1.6	11.0	-1.2	-0.9	-12.2
Sierra Leone	6.2	5.9	4.5	-0.3	57.1	92.5	84.1	35.3
Tanzania	3.4	5.7	NA	2.4	30.6	25.2	22.2	-5.4
Togo	1.8	-0.9	0.9	-2.7	6.5	0.3	0.9	-6.2
Uganda	NA	NA	NA	NA	90.6	95.2	40.3	4.6
Zambia	3.6	4.6	4.0	0.9	25.9	104.8	142.5	79.0
Zimbabwe	0.8	2.0	1.5	1.1	15.0	19.3	32.7	4.3
Mean	*1.6*	*1.2*	*1.3*	*-0.4*	*18.7*	*21.9*	*20.6*	*3.1*
Median	*1.1*	*0.7*	*1.1*	*-0.4*	*10.5*	*7.5*	*9.4*	*-2.5*
CFA countries								
Mean	*1.0*	*-0.2*	*-0.0*	*-1.3*	*7.2*	*0.3*	*0.4*	*-7.0*
Median	*1.0*	*-0.3*	*-0.1*	*-1.1*	*6.6*	*0.2*	*0.2*	*-6.6*
Non-CFA countries								
Mean	*2.1*	*2.5*	*2.8*	*0.5*	*27.3*	*38.1*	*35.7*	*10.7*
Median	*1.6*	*2.0*	*2.3*	*0.6*	*18.4*	*22.5*	*23.4*	*4.2*

Note: Seigniorage was calculated as the change in M1 over GDP less the share of M1 to GDP time the real GDP growth rate.
Source: World Bank and IMF, IFS data and Authors' Calculations.

Table 7. Seigniorage and Inflation, 1991-92

Country	Seigniorage (Percentage of GDP)	Inflation (Percent)
Extreme Seignorage in 1991-92		
Nigeria	5.0	28.8
Sierra Leone	4.5	84.1
Zambia	4.0	142.5
Kenya	3.5	24.7
Guinea-Bissau	3.5	72.5
Madagascar	3.3	11.6
Mean	4.0	60.7
Median	3.8	50.7
High Seignorage in 1991-92		
Ghana	2.3	14.0
Malawi	2.0	17.7
Gambia, The	1.9	9.0
Zimbabwe	1.5	32.7
Mean	1.9	18.4
Median	2.0	15.9
Moderate Seignorage in 1991-92		
Benin	1.4	6.0
Rwanda	1.4	14.6
Mauritania	1.1	9.7
Togo	0.9	0.9
Congo	0.7	5.6
Mean	1.1	7.4
Median	1.1	6.0
Low Seignorage in 1991-92		
Mali	0.4	4.1
Burkina Faso	0.1	0.3
Senegal	0.1	-0.9
Central African Rep	-0.3	-1.9
Niger	-0.5	-6.1
Cote d'Ivoire	-0.5	2.6
Gabon	-0.7	-4.6
Chad	-1.1	-0.9
Cameroon	-1.1	0.1
Mean	-0.4	-0.8
Median	-0.5	-0.9

Note: Seigniorage was calculated as the change in M1 over GDP less the share of M1 to GDP times the real GDP growth rate.
Source: World Bank and IMF, IFS data and Authors' Calculations.

Table 8. Real Interest Rate for Deposits
(Percent)

Country	Averages 1981-86	1987-92	1991-92
Zambia	-15.3	-42.1	-48.3
Sierra Leone	-36.0	-27.1	-23.1
Nigeria	-5.9	-14.1	-22.7
Malawi	-3.7	-4.5	-6.7
Mauritania	-3.2	-2.1	-4.4
Benin	4.6	2.4	-2.7
Rwanda	1.5	-0.9	-2.4
Mali	2.2	3.7	3.1
Cote d'Ivoire	1.5	3.9	4.1
Gambia, The	-9.8	3.8	4.9
Congo	0.4	5.0	5.5
Uganda	-38.4	-11.4	7.0
Togo	4.0	6.3	7.2
Senegal	-1.7	7.1	7.8
Ghana	-16.4	-0.4	8.0
Burkina Faso	2.7	5.8	8.1
Cameroon	1.1	7.8	9.5
Central African Republic	1.9	9.3	9.7
Niger	6.3	10.5	12.4
Chad	5.6	5.5	13.8
Gabon	0.9	11.6	20.3
Burundi	-1.7	-3.0	na
Kenya	0.3	-2.8	na
Madagascar	-4.8	-4.9	na
Tanzania	-20.1	-6.9	na
Zimbabwe	-3.3	-5.0	na
Mean	*-4.9*	*-1.6*	*0.5*
Median	*-0.7*	*1.0*	*5.5*
CFA countries			
Mean	*2.4*	*6.6*	*8.2*
Median	*2.0*	*6.0*	*7.9*
Non-CFA countries			
Mean	*-11.2*	*-8.7*	*-9.7*
Median	*-5.4*	*-4.7*	*-4.4*

Note: The real interest rate is calculated as (the nominal interest rate less the inflation rate in the following year) divided by (1 + the inflation rate in the following year).
Source: IMF, IFS data and Authors' Calculations.

to the various elements. How important is low inflation relative to a low foreign exchange rate premium? Is a reduction in inflation more or less important than one in the premium? Are there significant gains in the overall policy environment if the premium is reduced to low levels but inflation remains high (say close to three digits)? Are there any gains in reducing inflation from 20 percent to 5 percent if the domestic currency remains grossly overvalued? Does a reduction in the budget deficit by three percentage points of GDP have the same impact if the initial deficit is 15 percent of GDP as opposed to 4 percent of GDP?

33. Although no method can address these complex questions in a satisfactory manner, we began by creating an index that (while imperfect), can at least provide a sense of the change in macroeconomic policies since the beginning of the adjustment period and that is consistent across countries. Our approach was to assign numerical values (from -3 to +3) based on the size of the change in each of the indicators between 1981-86 and 1987-92. For exchange rate policy, we used the change in the real exchange rate for the franc-zone countries, and an unweighted average of the change in the real exchange rate and the change in the premium for the countries with flexible exchange rates. For monetary policy, we took the average of changes in seigniorage and in inflation (an indicator of the effectiveness of monetary policy).[9] For the fiscal balance, we use the change in the budget deficit before grants, because it provides a measure of the domestic fiscal effort. We made one adjustment to account for changes in domestic tax revenues (the index increased [decreased] by one point if revenues rose [fell] by more than 3 percentage points of GDP). Since we do not have any compelling reason a priori for giving more weight to any of the three policies, we opted for a unweighted average, which we then used as the measure of change in macroeconomic policies.

34. By and large, there has been improvement in macroeconomic policies (table 9), as countries increased external competitiveness and reduced inflation. Seventeen out of the twenty-six countries for which we were able to compute the index showed improvement in the macroeconomic indicator between 1981-86 and 1987-92. Six countries, Ghana, The Gambia, Burkina Faso, Madagascar, Tanzania and Zimbabwe display the largest improvements. Nine countries show a deterioration in overall macroeconomic policy, with Cote d'Ivoire, Cameroon, Gabon and Congo, Zambia and Mozambique experiencing the largest declines during the period. Incorporating the 1992 data caused two countries to shift categories: Nigeria dropped from the large improvement to the small improvement category, while Benin fell from the small improvement to the deterioration or no change category. (Annex table A.1).

Change in Macroeconomic Policies and Economic Performance

35. The common perception about adjustment programs in Sub-Saharan Africa is that policy reforms have not been particularly effective in improving economic performance. The problem with this perception is that it tends to confound the effects of the failure to implement policy reforms with the effects of reforms that are actually implemented. The recently published <u>Adjustment in Africa</u> study, however, showed that countries that actually implemented reforms, particularly macroeconomic policy reforms, stopped the decline in income and in some cases are experienced positive growth for the first time in many years. Further, countries that made only limited adjustment efforts performed poorly. This section of the paper extends the work undertaken for the <u>Adjustment in Africa</u> study with the inclusion of

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[9] The change in the real interest rate was not included in the index of macroeconomic policy change because it is highly correlated with the change in inflation.

Table 9. Change in Macroeconomic Policies, 1981-86 to 1987-92

	Fiscal policy					Monetary policy					Exchange rate policy						
	Change in overall fiscal balance excluding grants		Change in total revenue		Change in fiscal policy (score)	Change in seigniorage		Change in inflation		Change in monetary policy (score)	Change in the real effective exchange rate		Change in the parallel market exchange rate premium		Change in exchange rate policy (score)	Overall change in macroeconomic policies (score)	
Country	Percentage points	score	Percentage points	score		Percentage points	score	Percentage points	score		Percentage points	score	Percentage points	score			
Large Improvement in Macroeconomic Policy																	
Ghana	-1.3	0	4.9	1	1	-0.6	1	-29.1	2	1.5	255.1	3	-1061.7	3	3.0	1.8	Ghana
Tanzania	5.2	3	1.5	0	3	2.4	-2	-5.4	1	-0.5	261.1	3	-175.0	3	3.0	1.8	Tanzania
Gambia, The	5.3	3	2.7	0	3	-0.4	0	-8.4	1	0.5	21.3	2	3.0	0	1.0	1.5	Gambia, The
Burkina Faso	8.3	3	-0.3	0	3	-0.9	1	-8.1	1	1.0	-3.8	0			0.0	1.3	Burkina Faso
Madagascar	1.4	1	0.7	0	1	0.8	0	-5.1	1	0.5	98.0	3	-26.3	1	2.0	1.2	Madagascar
Zimbabwe	-0.2	0	5.5	1	1	1.1	-1	4.3	0	-0.5	60.1	3	-39.5	2	2.5	1.0	Zimbabwe
Small Improvement in Macroeconomic Policy																	
Niger	-1.8	0	-1.5	0	0	-1.1	1	-10.1	2	1.5	7.1	1			1.0	0.8	Niger
Uganda	-1.2	0	-2.7	0	0			4.6	0	0.0	66.6	3	-62.6	2	2.5	0.8	Uganda
Burundi	-0.8	0	2.1	0	0	-1.0	1	-0.4	0	0.5	59.5	3	1.0	0	1.5	0.7	Burundi
Mauritania	3.0	2	1.6	0	2	-0.5	0	-1.2	0	0.0	32.6	3	73.1	-3	0.0	0.7	Mauritania
Nigeria	-1.7	0	3.7	1	1	2.1	-2	12.8	-2	-2.0	369.9	3	-185.5	3	3.0	0.7	Nigeria
Malawi	2.9	1	0.1	0	1	0.8	0	6.5	-1	-0.5	8.0	1	-25.8	1	1.0	0.5	Malawi
Mali	2.2	1	1.7	0	1	-2.6	2	-4.7	1	1.5	-9.5	-1			-1.0	0.5	Mali
Senegal	4.7	2	-0.4	0	2	-1.6	1	-12.2	2	1.5	-13.1	-2			-2.0	0.5	Senegal
Kenya	0.8	0	-0.2	0	0	0.6	0	4.2	0	0.0	31.0	3	11.5	-1	1.0	0.3	Kenya
Central African Republic	-7.2	-2	-2.2	0	-2	-1.1	1	-11.0	2	1.5	4.0	1			1.0	0.2	Central African Republic
Togo	0.6	0	-8.2	-1	-1	-2.7	2	-5.2	1	1.5	-3.9	0			0.0	0.2	Togo
Deterioration or No Change in Macroeconomic Policy																	
Benin	4.3	2	-3.4	0	2	0.4	0	-0.5	0	0.0	-10.9	-2			-2.0	0.0	Benin
Rwanda	-4.5	-1	0.5	0	-1	0.1	0	1.7	0	0.0	18.6	2	3.2	0	1.0	0.0	Rwanda
Sierra Leone	2.3	1	0.4	0	1	-0.3	0	35.3	-3	-1.5	66.2	3	339.6	-3	0.0	-0.2	Sierra Leone
Gabon	-7.8	-2	-11.7	-1	-3	-0.7	1	-10.7	2	1.5	-0.9	0			0.0	-0.5	Gabon
Zambia	2.0	1	-5.4	-1	0	0.9	0	79.0	-3	-1.5	23.1	2	235.9	-3	-0.5	-0.7	Zambia
Mozambique	-10.2	-3	0.2	0	-3			40.5	-3	-3.0	107.2	3	-1853.5	3	3.0	-1.0	Mozambique
Cameroon	-8.4	-2	-6.7	-1	-3	-1.0	1	-10.4	2	1.5	-32.2	-2			-2.0	-1.2	Cameroon
Congo	-5.6	-2	-11.7	-1	-3	0.7	0	-7.0	1	0.5	-5.6	-1			-1.0	-1.2	Congo
Cote d'Ivoire	-7.1	-2	-7.0	-1	-3	-1.8	1	-2.6	1	1.0	-25.5	-2			-2.0	-1.3	Cote d'Ivoire

See Table A4 for notes and sources

data for 1992 and reaches the same conclusions—namely, that improving policies pays off in a higher rate of growth.

Relating Changes in Policies to Changes in Performance

36. As in the Adjustment in Africa report, we examine whether there has been a change in economic performance between the preadjustment (defined as 1981-86) and the adjustment period (1987-92), and we relate the change in performance to the change in macroeconomic policy performance index developed in the previous section. In assessing the impact of policy reforms, the primary focus is on the *change* in growth rate of real GDP per capita, not the level of growth. The focus on the change, and not the level, is motivated by the fact that raising Africa's per capita growth rates to the level of 4 or 5 percent is a long-term, not a short-term, process. Even with good policies, growth rates in Africa in the medium term are unlikely to attain the rapid rates experienced by the best performers elsewhere in the world. Historically Africa's growth rates have lagged behind those of other regions, even after controlling for policies and some endowments.[10] Macroeconomic and other major policy changes included in adjustment programs are not likely to remove deep-rooted impediments to achieving rapid growth rates in the short term though they may bring about an increase in growth rates fairly quickly. Over the long term, however, the success of development efforts in Africa should be judged according to whether they achieve the high rates of growth needed to alleviate poverty within a reasonable time horizon.

37. As was stressed in the earlier study, we are examining the payoff to policy reform and not to adjustment lending. If reforms and the intensity of adjustment lending (as measured say, by the number of adjustment loans[11]) were perfectly correlated, there would be no difference. But reforms and the intensity of adjustment lending do not always go hand in hand for a variety of reasons: countries do not always implement the reforms agreed upon; they may implement reforms that are not elements of programs supported by adjustment loans; the pace of reform may differ; or their may be a large shock from weather or the terms of trade. The issue of the extent to which adjustment lending has facilitated policy reform in Africa is a complex one which is beyond the scope of this paper.

Changes in Macroeconomic Policies and Real GDP per Capita Growth

38. To assess the impact of policy reform on economic performance, we begin by investigating the relationship between changes in the index of macroeconomic policies developed in the previous section and the turnaround in GDP growth. The simplest approach starts by dividing countries into three groups, depending on whether they had large positive changes in the macroeconomic policy index, small positive changes, or zero/negative change in the index. The mean and median of the rates of growth and the turnaround for each group is then computed. As can be seen from table 10, those countries that improved policies the most (in the first group) had a median growth turnaround (of about 0.3 percentage points), and they returned to positive (though very low) rates of per capita GDP growth. In

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10 See Easterly and Levine (1994).

11 For an analysis of the relation between the intensity of adjustment lending and growth performance, see World Bank (1992).

Table 10. Change in Macroecnomic Policy and Economic Performance

Country	Real GDP per Capita growth rate: Average annual growth rates (percent) 1981-86	1987-92	Difference between 1981-86 and 1987-92 (percentage points)	Real export growth rate: Average annual growth rates (percent) 1981-86	1987-92	Difference between 1981-86 and 1987-92 (percentage points)	Nominal Investment/GDP ratio: Average percentage of GDP 1981-86	1987-92	Difference between 1981-86 and 1987-92 (percentage points)
Large Improvement in Macroeconomic Policy									
Ghana	-2.4	1.3	3.7	4.6	13.5	9.0	6.3	14.3	8.0
Tanzania	-1.5	2.4	3.9	NA	NA	NA	18.3	37.1	18.8
Gambia, The	0.7	-0.3	-1.0	-0.6	11.3	11.9	19.0	18.8	-0.2
Burkina Faso	2.2	-0.0	-2.2	-0.0	5.7	5.7	20.0	20.9	0.9
Madagascar	-3.7	-2.0	1.7	-7.3	5.0	12.3	9.1	12.2	3.1
Zimbabwe	0.4	-1.4	-1.8	8.0	-1.7	-9.7	19.6	21.4	1.8
Median	*-0.6*	*-0.2*	*0.3*	*-0.0*	*5.7*	*9.0*	*18.6*	*19.8*	*2.5*
Mean	*-0.7*	*-0.0*	*0.7*	*0.9*	*6.8*	*5.9*	*15.4*	*20.8*	*5.4*
Standard Deviation	*2.2*	*1.7*	*2.7*	*5.8*	*6.0*	*9.1*	*6.0*	*8.8*	*7.1*
Niger	-4.7	-3.1	1.6	-7.1	-2.7	4.3	13.8	10.9	-2.9
Uganda	-3.1	2.1	5.2	1.7	3.1	1.4	7.3	12.7	5.4
Burundi	2.1	1.0	-1.1	11.8	4.4	-7.4	16.4	17.7	1.4
Mauritania	-0.6	-0.9	-0.3	7.7	-2.6	-10.3	31.9	22.7	-9.2
Nigeria	-4.6	2.2	6.8	-5.5	4.3	9.8	15.3	15.1	-0.2
Malawi	-1.4	-1.2	0.3	1.6	2.8	1.2	17.6	18.7	1.1
Mali	0.4	-0.6	-0.9	2.6	7.0	4.4	17.1	22.0	4.9
Senegal	0.4	-0.4	-0.8	6.1	1.3	-4.8	11.2	12.8	1.5
Kenya	-0.3	0.6	0.9	2.3	5.2	2.8	23.1	22.8	-0.3
Central African Republic	-0.4	-2.8	-2.3	-3.6	-5.4	-1.8	11.0	12.2	1.1
Togo	-2.8	-3.4	-0.6	-0.2	-2.9	-2.7	25.3	23.6	-1.6
Median	*-0.6*	*-0.6*	*-0.3*	*1.7*	*2.8*	*1.2*	*16.4*	*17.7*	*1.1*
Mean	*-1.4*	*-0.6*	*0.8*	*1.6*	*1.3*	*-0.3*	*17.3*	*17.4*	*0.1*
Standard Deviation	*2.2*	*1.9*	*2.8*	*5.7*	*4.1*	*5.8*	*7.1*	*4.9*	*3.9*
Benin	1.1	-1.2	-2.3	2.0	-1.3	-3.3	16.0	13.3	-2.6
Rwanda	0.4	-2.7	-3.1	4.5	-1.4	-5.8	15.6	14.7	-0.9
Sierra Leone	-1.7	-0.3	1.4	-11.1	5.3	16.4	13.4	11.6	-1.9
Gabon	-2.7	-0.9	1.8	0.4	8.1	7.7	37.2	28.0	-9.3
Zambia	-2.9	-2.2	0.7	-2.2	0.2	2.5	17.2	13.7	-3.5
Mozambique	-6.8	3.1	9.9	-13.5	10.7	24.2	16.6	35.2	18.6
Cameroon	4.6	-7.8	-12.3	13.7	5.7	-7.9	24.8	18.5	-6.4
Congo	4.6	-1.5	-6.1	5.9	5.0	-0.9	39.4	17.5	-21.9
Cote d'Ivoire	-2.8	-4.8	-2.0	1.1	0.2	-0.9	17.1	10.9	-6.2
Median	*-1.7*	*-1.5*	*-2.0*	*1.1*	*5.0*	*-0.9*	*17.1*	*14.7*	*-3.5*
Mean	*-0.7*	*-2.0*	*-1.3*	*0.1*	*3.6*	*3.5*	*21.9*	*18.1*	*-3.8*
Standard Deviation	*3.8*	*3.0*	*6.1*	*8.4*	*4.4*	*10.7*	*9.8*	*8.2*	*10.5*
Chad	5.6	1.8	-3.8	14.8	3.1	-11.7	5.9	8.9	3.0
Guinea	NA	0.7	NA	NA	2.5	NA	NA	16.3	NA
Guinea-Bissau	3.0	2.2	-0.8	-4.4	17.1	21.5	27.2	30.6	3.4

Note: Classification of countries based on Table A4.
Source: World Bank data.

contrast, countries where policies worsened experienced a deterioration in growth (of 2 percentage points), and over half of the countries in that group experienced a severe decline in per capita income.

39. Although in aggregate there is an association between the extent of reform and changes in GDP growth, half of the countries in the sample have policies and growth rates moving in the opposite directions (see Table 10 and figure 2). That is, an improvement (deterioration) in the policy stance is correlated with a decline (increase) in the growth rates. This suggests that it is worth investigating the role of other factors in addition to policy, such as the external environment and initial economic conditions, in determining short-term growth outcomes. To control for other factors, we use a regression-based approach. First, we control for the initial level of macroeconomic distortion and resource endowments (proxied by average growth rates in the preadjustment period) to eliminate the rebound effect — a country with highly distorted policy environment might respond more strongly to the same level of policy change than a country with a less distorted policy environment because of greater underutilized capacity. Second, the impact of the external environment on growth is controlled for by the inclusion of variables to capture the impact of changes in net external transfers and in the income terms of trade. Third, we control for changes in the regulatory environment by the inclusion of a variable that measures the extent of government control of key prices and product markets.[12] It awards a high score to countries that decontrolled virtually all of their prices, eliminated key monopolies in the petroleum sector and in the distribution of key imported consumer goods and fertilizer, and took steps to liberalize marketing of key agricultural exports. This variable is a very imperfect proxy for changes in microeconomic policies that may have affected growth by reducing supply-side constraints, but it attempts to measure the extent to which government controls on pricing and marketing of goods that are of major importance to the economy were relaxed.

40. Controlling for the effects of external transfers, regulatory policies and initial conditions, we then see whether a positive growth turnaround is correlated with improvements in the macroeconomic policies. Five regressions are presented in table 11 showing the impact of changes in policies and in the other variables. The main difference across regressions is the choice of policy indicators. Regression I shows the results for the turnaround in growth using the composite indicator of the change in overall macroeconomic policy shown in table 10. We find that the coefficient on the change in the overall policy index is positive and significant. While net transfers and terms of trade are not statistically significant both have the right sign. Regression II shows the results using the individual scores for each of the three key macroeconomic policies. The exchange rate policy and fiscal policy variables have the right signs and are statistically significant, but the monetary policy variable is not statistically significant. The coefficients for the terms of trade and external transfers are also not statistically significant. In regressions III-V only one policy score is included in each regression along with the other variables. The coefficients for the exchange rate and fiscal policy remain significant with the correct sign, but monetary policy remains

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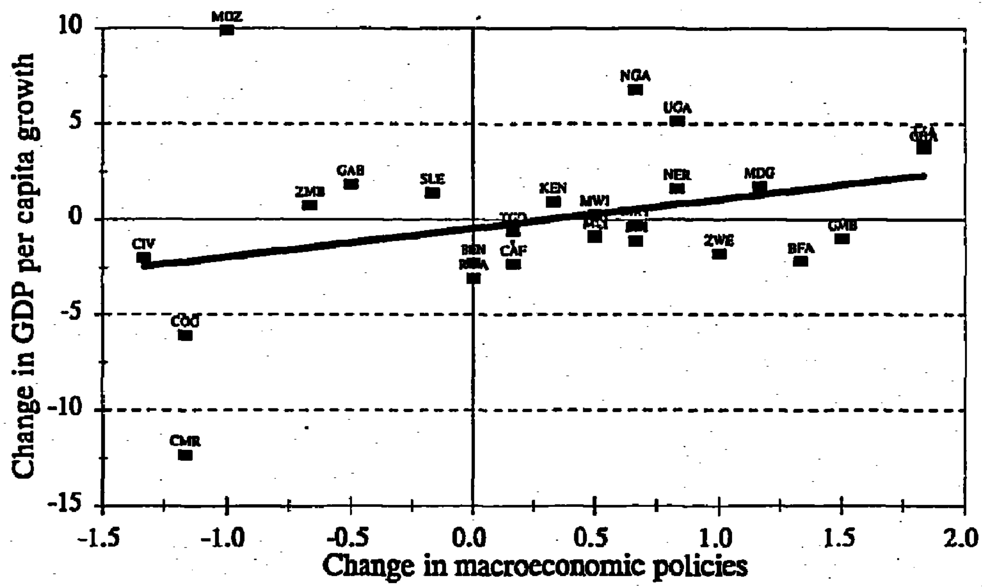
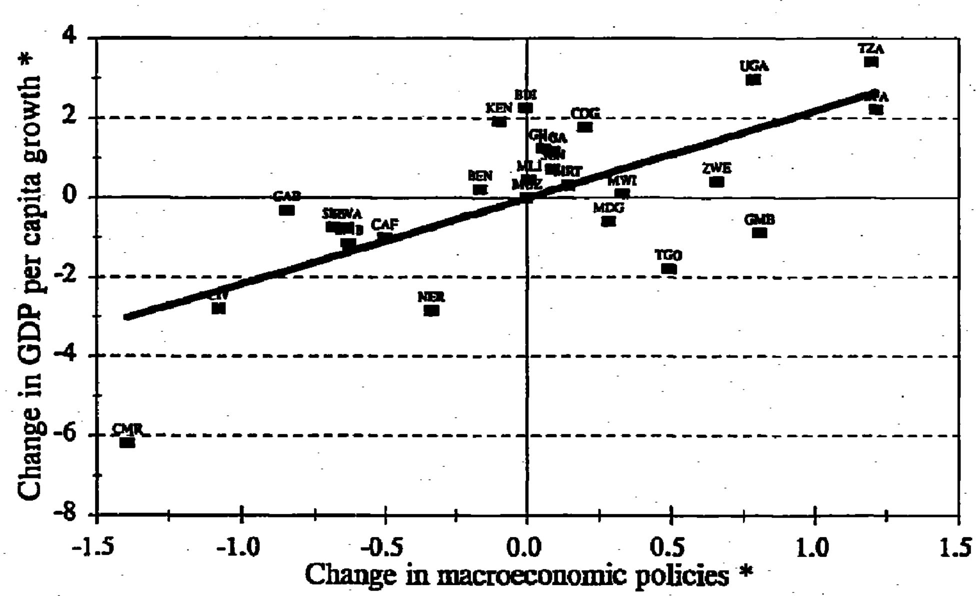
[12] The countries were scored on the basis of the information in Tables A.12 and A.13 in Adjustment in Africa. One point was given for each category that a country improved. In addition, countries that reached the light intervention category were awarded an extra point, reflecting the strong incentive effects of significantly reducing intervention. Thus, countries that moved from heavy to light intervention were rated as 3, from medium to light intervention as 2, and from heavy to medium intervention as 1.

Figure 2. Change in GDP per Capita Growth and Overall Macroeconomic Policy Index

Scattergram



Partial scattergram (controlling for other variables)



Note: Partial scattergram constructed by regressing the residual of the regression of the change in GDP on all other indepedent variables except the change in overall policy on the residual of the regression of the change in overall policy on the remaining independent variables.

Table 11. Explaining the Change in GDP per Capita Growth

Dependent variable: Difference in real GDP per Capita growth between 1981-86 and 1987-92

	constant	Changes in: Overall Macro Policy (Score)	Exchange Rate Policy (Score)	Monetary Policy (Score)	Fiscal Policy (Score)	Net Transfer Shock	Terms of Trade Shock	Micro Policies	Average GDP Growth in 1981-86	Adjusted R^2
I	-2.93	2.18				0.24	0.28	0.74	-0.94	0.88
	(-4.76)	(4.27)				(1.47)	(1.50)	(1.81)	(-6.20)	
II	-2.48		0.84	0.19	0.60	0.20	0.22	0.56	-0.88	0.90
	(-3.31)		(2.98)	(0.45)	(2.78)	(1.18)	(1.16)	(1.26)	(-5.45)	
III	-2.33		0.92			0.03	0.12	0.78	-0.86	0.85
	(-3.60)		(3.18)			(0.21)	(0.62)	(1.69)	(-4.67)	
IV	-1.03			-0.76		-0.22	-0.08	0.36	-1.10	0.79
	(-1.19)			(-1.55)		(-1.27)	(-0.33)	(0.63)	(-5.73)	
V	-1.77				0.68	0.02	0.10	0.37	-1.12	0.84
	(-2.76)				(2.88)	(0.10)	(0.49)	(0.76)	(-6.64)	

Note: Numbers in parentheses are t-statistics. Macroeconomic policy scores are from table A4. A dummy variable for Mozambique was used in all the regressions.

statistically insignificant and changes sign when it is the only policy variable in the equation.[13] In all five regressions, the significance of the initial growth rate is robust and has a negative coefficient, indicating a strong rebound effect. The micro policy variable is significant at the 10 percent level in the first regression, suggesting that it might be worth investigating alternative methods that better capture important supply-side policy changes.

41. Neither the terms of trade nor the external transfers shock variables are statistically significant, though they have positive signs in all the regressions except where monetary policy is the only policy variable. The greater stability of the terms of trade variable in this paper relative to the earlier study reflects a modification to the way in which we calculated the shock variables. There is no commonly accepted method for calculating changes in the terms of trade. In this paper, the method we use is similar to the one used in Easterly *et al* (1993) in their analysis of the factors explaining differences across countries in growth rates over ten year periods. They calculated the terms of trade variable as the average rate of change of the income terms of trade for the decade under study, the assumption being that the faster the growth in the terms of trade, the higher a country's GDP growth rate should be. We used a similar approach in this paper, which consisted of calculating the change in the rate of growth of the terms of trade in the two periods under study (1981-86 and 1987-92).[14] This way of calculating the terms of trade differs from the method used in Adjustment in Africa, which took the difference between the average terms of trade index for the two periods. The assumption underlying this specification of the terms of trade variable is that an improvement in the level of the terms of trade from the first period (1981-86) to the second (1987-91) rather than a change in the rate of growth of the index should be reflected in a change in the rate of GDP growth between the two periods. We also redid the regressions using this methodology. While the coefficients are slightly different, the results are essentially the same. Judgements about how to define the terms of trade variable depend in part about hypotheses about the lagged effect of changes in the terms of trade on changes in GDP growth rates.

42. As shown in figure 2 - the partial scatter diagram of the change in macroeconomic policy and the change in GDP per capita growth - the direction of the policy change is consistent with that of economic performance in 20 of the 26 countries included in the regression. After controlling for other factors, the six countries which do not follow the predicted relationship are Benin, Burundi, The Gambia, Kenya, Madagascar and Togo. Benin, Burundi and Kenya had a negative policy residual and a positive growth residual, while The Gambia, Madagascar and Togo had a positive policy residual and a negative

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[13] The lack of significance of the monetary policy variable may reflect the fact that the CFA countries tended to score well on inflation, as expected given their attempts to bring about a real depreciation through tight monetary policy. However, tight monetary policy did not bring about a real depreciation quickly, and hence growth suffered. The non-CFA countries did achieve a real depreciation, with some countries also showing significant improvement in inflation while others made less progress in combatting inflation. Often the exchange rate changes in the non-CFA countries were of such large magnitude and so important in restoring incentives that they were sufficient to put the economies on a recovery path, even though monetary and fiscal policy did not always show large improvements. Hence there is no clear correlation between monetary policy and growth outcomes. This result is mirrored in other work, which finds that inflation tends not to be highly significant variable in cross-country growth regressions based on decade averages. However, there is a strong correlation between periods of high inflation and low economic growth (Bruno and Easterly, work in progress).

[14] See tables B.12 and B.13 for the definition of the terms of trade and net transfer shock. The regression also included a interactive dummy for Mozambique net transfers. Mozambique experienced a huge negative net transfers shock between 1981-86 and 1987-92.

growth residual. It is not clear what other factors might explain the performance of these particular countries.

Change in Macroeconomic Policies and the Ratio of Gross Investment to GDP

43. While adjustment policies are instrumental in generating the conditions for higher growth, they are only part of the solution. Shifting African economies onto a new growth path requires a combination of a good overall policy environment and improvements in traditional development instruments, such as investments in education and infrastructure. As many studies have discovered, however, investment generally responds slowly to adjustment programs. This slow response is understandable. Fiscal stabilization often requires that governments cut some public investment, although as we have seen, a number of countries (especially those outside the CFA franc zone) actually increased their level of public investment during the adjustment period. More importantly, private investment is unlikely to increase in the early phase of adjustment as the private sector often takes a wait-and-see attitude due to the irreversibility of investment decisions and the reversibility of key policy changes (Serven and Solimano, 1993).

44. As with GDP growth, changes in investment performance were related to changes in macro-policies. On average, investment increased in countries that improved policies while it declined in those where policies deteriorated, and this is confirmed by regression analysis. The investment performance of certain countries is notable. Tanzania and Mozambique had a remarkable turnaround in investment while the oil-exporting countries—Gabon, Cameroon and Congo—experienced large declines in their investment ratios. The decline in investment in these latter countries is understandable given the high —and often unproductive—levels of investment that occurred in the late 1970s/early 1980s in response to the spike in oil prices.

45. In the two groups of countries where policies improved, two-thirds of the countries experienced an improvement in investment performance, while in the group of countries where macroeconomic policies deteriorated only Mozambique, recovering from a war and benefitting heavily from donor assistance, experienced a positive turnaround in investment. One interpretation of these results is that while better policies may not always succeed in raising investment in the short-term, a deterioration in the macroeconomic policy environment will certainly result in a decline of investment. The positive relation between improving policies and higher investment rates is confirmed in regression A, shown in Table 12.

Change in Macroeconomic Policies and Real Export Growth

46. Because macroeconomic incentives have a key role in export performance it is natural to relate our index of changes in macroeconomic policies to changes in export growth. Thus, the final indicator of economic performance examined in this paper is real export growth. Africa's export performance before adjustment was poor. Between 1965 and 1986 real exports from Sub-Saharan Africa merely doubled, while those of non-African adjusting countries increased fivefold. Between 1987 and 1992 exports in the African adjusting countries were growing at 3.5 percent per year compared with 9.2 percent in other developing countries. While the export growth performance has improved relative to the past (real exports grew at 1.3% percent per year between 1970 and 1986), there is still room for improvement.

Table 12. Explaining the Change in Exports and Investment

	constant	Changes in: Overall Macro Policy (Score)	Net Transfer Shock	Terms of Trade Shock	Micro Policies	Average real export Growth in 1981-86	Adjusted R^2
Dependent variable: Difference in Investment/GDP ratio between 1981-86 and 1987-92							
A	4.08	4.55	0.09	-0.24	-0.08	-0.36	0.77
	(1.24)	(2.30)	(0.23)	(-0.51)	(-0.12)	(-2.23)	
Dependent variable: Difference in real export growth between 1981-86 and 1987-92							
B	0.85	1.02	-0.41	0.24	2.08	-0.77	0.82
	(0.41)	(0.85)	(-0.97)	(0.47)	(1.93)	(-4.15)	

Note: Numbers in parentheses are t-statistics. Macroeconomic policy score is from table A4.
A dummy variable for Mozambique was also used in both regressions.

47. Exports are expected to expand in the early phase of adjustment programs, especially because successful programs increase external competitiveness and rely on export growth to offset the output costs associated with stabilization efforts. As is shown in Table 10, countries with the largest improvements in macroeconomic policies enjoyed higher growth rates of exports than other adjusting countries in the region and had the largest positive turnaround in export growth. In contrast, based on the medians, exports lost ground in those countries where macroeconomic policies deteriorated, though there were large increases in Sierra Leone and Mozambique, and also in Gabon (from oil). Regression shown in table 12 relates the changes in policy index to changes in real exports controlling for terms of trade and the initial level of export growth. It shows that the macroeconomic policy variable is not significant (though it has a positive sign), with the rebound effect being by far the most significant variable. What is interesting is that the micropolicy change variable is significant, suggesting that liberalization has played some role in export expansion. One reason that the macroeconomic policy change variable may not be significant is that it is overwhelmed by the huge variance in export performance that reflect country-specific changes in the performance of a major export not related to macroeconomic policies per se (such as the discovery of a new oil field).

Still Far From the Frontier: Overall Macroeconomic Policy Stance

48. How close are countries to the policy frontier? To answer this question, we developed a second indicator in Adjustment in Africa to capture the current macroeconomic policy stance, a useful complement to the change in policies index. A country can show substantial positive change in its macroeconomic policies, yet still have a long ways to go before achieving good macroeconomic policy. Madagascar, for example, improved its macroeconomic policies but still has a relatively poor policy stance because it started from a very unstable situation.

49. To derive the indicator of policy stance as of 1991-92, we classify the fiscal, monetary and exchange rate policy stance as adequate (or good), fair, poor, or very poor by assigning each policy area a numerical value from 1 to 4 with the larger number indicating poorer policies. Tables 13-15 summarize the rankings of fiscal, monetary and exchange rate stance in 1990-91 (revised data) and 1991-92 (revised data). The tables show that the fiscal and exchange rate policy stance deteriorated in a number of countries.

50. The overall score for the macroeconomic policy stance was obtained by a simple average of the three policy scores (see table 16 for details). For fiscal policy, we used the budget deficit including grants, because it provides a better measure of the current fiscal imbalances--implicitly we assume that grants will continue at the same level in the short term. For monetary policy, we relied on seigniorage, inflation, and the real interest rate. And for exchange rate we used the premium on the parallel exchange rate for the countries without convertible currencies and the measure of misalignment based on the REER described in para. 16 for the countries in the franc zone. Again, the choice of cutoff points is unavoidably arbitrary, since there is no solid analytical basis for differentiating sharply between poor and very poor policy stances, or between adequate and fair. For example, there probably is little difference in the macroeconomic policy environment in the Central African Republic and Côte d'Ivoire, but a small difference in exchange rate policy (according to our measure) gives Côte d'Ivoire a worse overall score, enough to place Côte d'Ivoire in the very poor group and the Central African Republic in the poor group. In our view, the difference is not that large. The labels--adequate, fair, poor and very poor--provide a useful basis for classifying countries relative to international standards, but too much weight should not be attached to the precise rankings.

Table 13. Fiscal Policy Stance, 1990-91 and 1991-92

(based on revised data)

1990-91		1991-92	
Good or Adequate Fiscal Policy Stance			
The Gambia	****	The Gambia	****
Mauritania	****	Mauritania	****
Senegal	****	Senegal	****
Tanzania	****	Tanzania	****
Uganda	****		
Fair Fiscal Policy Stance			
Ghana	***	Burkina Faso	***
Madagascar	***	Uganda	***
Malawi	***		
Togo	***		
Poor Fiscal Policy Stance			
Benin	**	Benin	**
Burkina Faso	**	Burundi	**
Burundi	**	Gabon	**
Gabon	**	Ghana	**
Kenya	**	Kenya	**
Mali	**	Madagascar	**
Niger	**	Mali	**
Nigeria	**	Mozambique	**
Rwanda	**	Niger	**
		Sierra Leone	**
		Togo	**
		Zambia	**
Very Poor Fiscal Policy Stance			
Cameroon	*	Cameroon	*
Central African Republic	*	Central African Republic	*
Congo	*	Congo	*
Cote d'Ivoire	*	Cote d'Ivoire	*
Mozambique	*	Malawi	*
Sierra Leone	*	Nigeria	*
Zambia	*	Rwanda	*
Zimbabwe	*	Zimbabwe	*

A score of 1 is considered good or adequate; 2, fair; 3, poor; and 4, very poor.
Source: Tables A7 and A8.

Table 14. Monetary Policy Stance, 1990-91 and 1991-92

(based on revised data)

1990-91		1991-92	
Good or Adequate Monetary Policy Stance			
Burkina Faso	****	Benin	****
Burundi	****	Burundi	****
Congo	****	Cote d'Ivoire	****
Cote d'Ivoire	****	Mali	****
Mali	****		
Fair Monetary Policy Stance			
Benin	***	Burkina Faso	***
Cameroon	***	Cameroon	***
Central African Republic	***	Central African Republic	***
Gabon	***	Congo	***
The Gambia	***	Gabon	***
Madagascar	***	The Gambia	***
Malawi	***	Malawi	***
Mauritania	***	Mauritania	***
Niger	***	Niger	***
Rwanda	***	Rwanda	***
Senegal	***	Senegal	***
Tanzania	***	Tanzania	***
Togo	***	Togo	***
Poor Monetary Policy Stance			
Ghana	**	Ghana	**
Kenya	**	Kenya	**
Mozambique	**	Madagascar	**
Nigeria	**	Mozambique	**
Uganda	**	Uganda	**
Zimbabwe	**	Zimbabwe	**
Very Poor Monetary Policy Stance			
Sierra Leone	*	Nigeria	*
Zambia	*	Sierra Leone	*
		Zambia	*

A score of 1.0 to 1.3 is considered good or adequate; 1.4 to 2.3, fair; 2.4 to 3.0, poor; and 3.1 and above, very poor.
Source: Tables A7 and A8.

Table 15. Exchange Rate Policy Stance, 1990-91 and 1991-92

(based on revised data)

1990-91		1991-92	
Good or Adequate Exchange Rate Policy Stance			
Ghana	****	Ghana	****
Kenya	****	Mozambique	****
The Gambia	****	The Gambia	****
Fair Exchange Rate Policy Stance			
Burundi	***	Madagascar	***
Madagascar	***	Niger	***
Malawi	***	Uganda	***
Niger	***		
Nigeria	***		
Uganda	***		
Zimbabwe	***		
Poor Exchange Rate Policy Stance			
Benin	**	Benin	**
Burkina Faso	**	Burkina Faso	**
Central African Rep.	**	Burundi	**
Gabon	**	Central African Rep.	**
Mali	**	Gabon	**
Mozambique	**	Malawi	**
Rwanda	**	Mali	**
Togo	**	Nigeria	**
		Tanzania	**
		Togo	**
		Zambia	**
		Zimbabwe	**
Very Poor Exchange Rate Policy Stance			
Cameroon	*	Cameroon	*
Congo	*	Congo	*
Cote d'Ivoire	*	Cote d'Ivoire	*
Mauritania	*	Kenya	*
Senegal	*	Mauritania	*
Sierra Leone	*	Rwanda	*
Tanzania	*	Senegal	*
Zambia	*	Sierra Leone	*

A score of 1 is considered good or adequate; 2, fair; 3, poor; and 4, very poor.
Source: Tables A7 and A8.

Table 16. Components of Macroeconomic Policy Stance, 1991-92

Country	Fiscal policy: Overall fiscal balance including grants (% of GDP)	Fiscal policy: Fiscal policy score	Monetary Policy: Seigniorage Percent	Monetary Policy: Seigniorage Score	Monetary Policy: Inflation Percent	Monetary Policy: Inflation Score	Monetary Policy: Real interest rate Percent	Monetary Policy: Real interest rate Score	Monetary Policy: Monetary policy score	Exchange rate policy: Parallel market exchange rate premium (percent)	Exchange rate policy: Parallel market Score	Exchange rate policy: Change in the real effective exchange rate since 1980 (percent)	Exchange rate policy: Change in REER Score	Exchange rate policy: Exchange rate policy score	Overall macroeconomic policy score	Country
Adequate Macroeconomic Policy Stance																
The Gambia	2.9	1.0	1.9	3.0	9.0	1.0	4.9	2.0	2.0	-4.2	1.0			1.0	1.3	The Gambia
Fair Macroeconomic Policy Stance																
Tanzania	0.6	1.0	7.6	NA	22.2	2.0	NA	NA	2.0	45.2	3.0			3.0	2.0	Tanzania
Burkina Faso	-2.7	2.0	0.1	1.0	0.3	1.0	6.1	3.0	1.7			14.9	3.0	3.0	2.2	Burkina Faso
Ghana	-8.0	3.0	2.3	3.0	14.0	2.0	8.0	3.0	2.7	5.5	1.0			1.0	2.2	Ghana
Mauritania	0.8	1.0	1.1	2.0	9.7	1.0	-4.4	2.0	1.7	149.0	4.0			4.0	2.2	Mauritania
Niger	-5.0	3.0	-0.5	1.0	-6.1	1.0	12.4	3.0	1.7			36.6	2.0	2.0	2.2	Niger
Senegal	1.1	1.0	0.1	1.0	-0.9	1.0	7.6	3.0	1.7			-0.9	4.0	4.0	2.2	Senegal
Burundi	-5.1	3.0	NA	NA	6.8	1.0	NA	NA	1.0	45.2	3.0			3.0	2.3	Burundi
Mozambique	-5.4	3.0	NA	NA	40.1	3.0	NA	NA	3.0	1.7	1.0			1.0	2.3	Mozambique
Uganda	-3.5	2.0	NA	NA	40.3	3.0	7.1	3.0	3.0	13.2	2.0			2.0	2.3	Uganda
Poor Macroeconomic Policy Stance																
Benin	-5.1	3.0	1.4	2.0	6.0	1.0	-2.7	1.0	1.3			12.4	3.0	3.0	2.4	Benin
Mali	-5.8	3.0	0.4	1.0	4.1	1.0	3.2	2.0	1.3			11.9	3.0	3.0	2.4	Mali
Gabon	-3.7	3.0	-0.7	1.0	-4.6	1.0	20.3	3.0	1.7			16.4	3.0	3.0	2.6	Gabon
Madagascar	-6.0	3.0	3.3	4.0	11.6	2.0	NA	NA	3.0	19.1	2.0			2.0	2.7	Madagascar
Togo	-3.8	3.0	0.9	2.0	0.9	1.0	7.2	3.0	2.0			10.9	3.0	3.0	2.7	Togo
Central African Republic	-10.1	4.0	-0.3	1.0	-1.9	1.0	9.7	3.0	1.7			17.0	3.0	3.0	2.9	Central African Republic
Very Poor Macroeconomic Policy Stance																
Cote d'Ivoire	-13.6	4.0	-0.5	1.0	2.6	1.0	4.1	2.0	1.3			-2.4	4.0	4.0	3.1	Cote d'Ivoire
Malawi	-8.3	4.0	2.0	3.0	17.7	2.0	-6.7	2.0	2.3	39.1	3.0	NA	NA	3.0	3.1	Malawi
Cameroon	-7.2	4.0	-1.1	1.0	0.1	1.0	9.5	3.0	1.7			-31.4	4.0	4.0	3.2	Cameroon
Congo	-13.9	4.0	0.7	2.0	5.6	1.0	5.5	2.0	1.7			-10.0	4.0	4.0	3.2	Congo
Rwanda	-7.8	4.0	1.4	2.0	14.6	2.0	-2.4	1.0	1.7	82.6	4.0			4.0	3.2	Rwanda
Kenya	-4.6	3.0	3.5	4.0	24.7	2.0	NA	NA	3.0	57.9	4.0			4.0	3.3	Kenya
Zambia	-4.3	3.0	4.0	4.0	142.5	4.0	-50.6	4.0	4.0	43.3	3.0			3.0	3.3	Zambia
Zimbabwe	-7.7	4.0	1.5	3.0	32.7	3.0	NA	NA	3.0	31.1	3.0			3.0	3.3	Zimbabwe
Nigeria	-8.8	4.0	5.0	4.0	28.8	3.0	-22.7	4.0	3.7	34.8	3.0			3.0	3.6	Nigeria
Sierra Leone	-4.4	3.0	4.5	4.0	84.1	4.0	-23.1	4.0	4.0	66.9	4.0			4.0	3.7	Sierra Leone

A score of less than 1.4 is considered adequate; 1.4 to 2.3, fair; 2.4 to 3.0, poor; and 3.0 and above, very poor.
Source: Table A8.

51. While the majority of the countries in the sample group had improvements in overall macroeconomic policies in the 1987-92 period compared with the earlier 1981-86 period, over half of the countries in our sample still had a poor macroeconomic policy stance in the 1991-92 period (16 of the 26 countries classified had poor or very poor macroeconomic policies). Of the 10 countries with better macroeconomic policies, only The Gambia is classified as having good or adequate macroeconomic policies. It is important to note that the change in the relative rankings in Ghana and The Gambia are due to data revisions. In Adjustment in Africa, Ghana was the only country ranked as having a good or adequate macroeconomic policy into the good or adequate category. It falls down a category due to revisions in the budget data, while The Gambia improves because of a correction to the black market premium data. The budget data for Ghana were revised to reflect the broad definition of the budget deficit, which includes donor financed capital expenditure to improve the comparability with other countries. Nine countries, including Ghana, were classified as having only fair macroeconomic policies for the period 1991-92.

52. Few of the African countries come close to the sustained track record of the best performers among developing countries outside the region (e.g. Chile, Malaysia, Mexico and Thailand). Even in Ghana, a country often considered to be a front runner in the adjustment process in Africa, the fiscal balance is fragile, inflation is above international levels, and the black market foreign exchange premium has not been eliminated. Even more disturbing is the fact that the average macroeconomic policy stance in 1991-92 deteriorated from the policy stance computed for 1990-91, using in both cases the revised data set for both periods to make the comparison (table 17). In 1990-91, thirteen countries were classified as having poor or very poor macroeconomic policies, whereas by 1991-92, sixteen countries classified as poor or very poor. Five countries (Kenya, Madagascar, Malawi, Mali, and Togo) fell from fair to poor or very poor, primarily due to a deterioration in their fiscal and exchange rate policies. Nigeria, Rwanda, and Zimbabwe dropped from poor to very poor. Only two countries moved up: Burkina Faso and Mozambique. Malawi's drop from fair to very poor is partually explained by the drought in Southern Africa and the large decline in donor assistance in 1992. The drought led to a large fall in GDP and higher expenditures for food, both of which contributed to a substantial decline in the overall fiscal deficit as a share of GDP. The drought also undermined some of the policy improvement efforts made by a few of the other countries. Zimbabwe, for example, was also strongly affected by the drought. While weather is clearly one factor that explains some of the deterioration, it is only one factor. As of 1992, there had been no real turnaround on the policy stance, showing how difficult the reform process is and how easily its is derailed or undermined by external and internal factors.

53. The indicator of overall macroeconomic policy stance gives equal weight to the indicators of exchange rate, monetary and fiscal policy stance. However, the information from cross-country regressions may provide some guidance as to what may be a more appropriate set of weights. According to the regression presented in Table 11, the index of exchange rate policy has the largest coefficient, followed by fiscal policy, with the coefficient of the monetary policy index much smaller and far less significant. Although the coeffficients relate to the impact of the change in policy rather than to the policy stance per se, they represent a useful starting point for constructing a more appropriate set of weights. According to the regression, exchange rate policy would carry a weight of 51.5 percent, fiscal policy 36.7 percent, and monetary policy 11.8 percent. Table 18 shows how countries rank using the set of weights derived from the regressions. Based on the 1991-92 data, changing the weights causes six countries to shift category: four (Burkina Faso, Burundi, Mauritania, and Senegal) drop from fair to poor, and Central African Republic from poor to very poor. Recomputing the stance with the regression-based weights for 1990-91 and comparing it to the 1991-92 index computed in the same manner also shows that there has

Table 17. Overall Macroeconomic Policy Stance, 1990-91 and 1991-92

From Adjustment in Africa data		Based on revised data			
1990-91		1990-91		1991-92	
Adequate Macroeconomic Policy Stance					
Ghana	****	The Gambia	****	The Gambia	****
Fair Macroeconomic Policy Stance					
Burkina Faso	***	Burundi	***	Burkina Faso	***
Burundi	***	Ghana	***	Burundi	***
Gabon	***	Kenya	***	Ghana	***
Kenya	***	Madagascar	***	Mauritania	***
Madagascar	***	Malawi	***	Mozambique	***
Malawi	***	Mali	***	Niger	***
Mali	***	Mauritania	***	Senegal	***
Mauritania	***	Niger	***	Tanzania	***
Nigeria	***	Senegal	***	Uganda	***
Senegal	***	Tanzania	***		
The Gambia	***	Togo	***		
Togo	***	Uganda	***		
Uganda	***				
	***				
Poor Macroeconomic Policy Stance					
Benin	**	Benin	**	Benin	**
Central African Republic	**	Burkina Faso	**	Central African Republic	**
Niger	**	Central African Republic	**	Gabon	**
Rwanda	**	Gabon	**	Madagascar	**
Tanzania	**	Nigeria	**	Mali	**
Zimbabwe	**	Rwanda	**	Togo	**
		Zimbabwe	**		
Very Poor Macroeconomic Policy Stance					
Cameroon	*	Congo	*	Cameroon	*
Congo	*	Cota d'Ivoire	*	Congo	*
Cote d'Ivoire	*	Cameroon	*	Cote d'Ivoire	*
Mozambique	*	Mozambique	*	Kenya	*
Sierra Leone	*	Sierra Leone	*	Malawi	*
Zambia	*	Zambia	*	Nigeria	*
				Rwanda	*
				Sierra Leone	*
				Zambia	*
				Zimbabwe	*

Notes: The narrow defintion of the fiscal deficit was used in the Adjustment in Africa study for Ghana.
Source: Tables A6, A7 and A8

Table 18. Overall Macroeconomic Policy Stance Using Different Weights

Policy index using original equal weights (Revised data, 1991-92 stance)		Policy index using regression based weights (Revised data, 1991-92 stance)		Policy index using regression based weights (Revised data, 1990-91 stance)	
Adequate macroeconomic policy stance					
The Gambia	****	The Gambia	****	The Gambia	****
Fair macroeconomic policy stance					
Burkina Faso	***	Ghana	***	Burundi	***
Burundi	***	Mozambique	***	Ghana	***
Ghana	***	Niger	***	Kenya	***
Mauritania	***	Tanzania	***	Madagascar	***
Mozambique	***	Uganda	***	Malawi	***
Niger	***			Niger	***
Senegal	***			Uganda	***
Tanzania	***				***
Uganda	***				
Poor macroeconomic policy stance					
Benin	**	Benin	**	Benin	**
Central African Republic	**	Burkina Faso	**	Burkina Faso	**
Gabon	**	Burundi	**	Gabon	**
Madagascar	**	Gabon	**	Mali	**
Mali	**	Madagascar	**	Mauritania	**
Togo	**	Mali	**	Nigeria	**
		Mauritania	**	Rwanda	**
		Senegal	**	Senegal	**
		Togo	**	Tanzania	**
				Togo	**
				Zimbabwe	**
Very Poor macroeconomic policy stance					
Cameroon	*	Cameroon	*	Cameroon	*
Congo	*	Central African Republic	*	Central African Republic	*
Cote d'Ivoire	*	Congo	*	Congo	*
Kenya	*	Cote d'Ivoire	*	Cote d'Ivoire	*
Malawi	*	Kenya	*	Mozambique	*
Nigeria	*	Malawi	*	Sierra Leone	*
Rwanda	*	Nigeria	*	Zambia	*
Sierra Leone	*	Rwanda	*		
Zambia	*	Sierra Leone	*		
Zimbabwe	*	Zambia	*		
		Zimbabwe	*		

Note: Policy ranking based on fiscal, monetary and exchange rate policy scores reported in table A8
The regression based weights are 36.7% weight for fiscal policy a 11.8 % weight for monetary policy and a 51.5% weight for exchange rate policy. These weights are derived from regression II in table 11.

been a deterioration in country policy performance. Four countries (Burundi, Kenya, Madagascar, and Malawi) drop from the fair category to the poor or very poor category, while two countries (Mozambique and Tanzania) move up from poor or very poor to the fair category. Three countries (Nigeria, Rwanda and Zimbabwe) drop from poor to very poor. Three countries shift categories in the equally weighted index that do not shift categories in the regression-weighted index, while two countries shift categories in the regression-weighted index and act in the equally weighted index. Seven countries shift in both indexes. Clearly the weighing scheme does make a difference for a few countries, but the general trend is the same for both.

54. We can also use the regression-based weight to reweight the index of macroeconomic policy change (table 19). Five countries would change categories: Nigeria and Uganda would move from the small to the large improvement category and three countries would move from the deterioration category to the small improvement category (Mozambique, Rwanda and Sierra Leone). However, two countries (Central African Republic and Senegal) would show a deterioration in policies. The weighting scheme provides a slightly more positive view of the extent of policy change, but it does not, of course, change the results of Regressions II-V (presented in table 11) relating macroeconomic policy changes to growth, since the regression coefficients were derived by regressing the indexes of exchange rate, fiscal and monetary policy changes on the change in GDP growth.

Conclusion

55. These results demonstrate that getting the real exchange rate right and reducing the fiscal deficit to close to zero should be the top priority for restoring growth. Countries that significantly reduced the black market premium (by devaluing), and reduced their budget deficits enjoyed the biggest payoffs. It is important to point out that these two policies need not be inconsistent: there is a positive correlation between improvements in exchange rate policy and fiscal policies as the contrasting experience of the CFA and non CFA countries during the period 1987-92 also demonstrates. In this light, the devaluation of the CFA franc in January 1994 represents a real opportunity for the CFA franc zone countries not only to improve their fiscal performance, but also, and even more importantly, to restore growth.

56. Having made real progress on the exchange rate front, countries need to focus their reform efforts on sustaining the progress made thus far, and in particular to pay increased attention to improving their fiscal position. The budget deficit is still unsustainably high in many countries—around 9.8 percent of GDP in 1991-92—and grants still play a large role. The challenge will be to reduce the budget deficit in ways that are consistent with poverty reducing growth: hence the need to focus on reorienting public expenditures to the essential tasks of government, especially that of insuring the provision of basic social services. Two areas of concern that are not immediately apparent are implicit subsidies to public enterprises, which continue to be large in the few countries for which such data are available, and costs of banking sector restructurings that ultimately are absorbed by the budget. Reform in these areas are likely to be important to ensuring the long-term sustainability of the fiscal reform efforts.

57. Policy reforms undertaken thus far have paid off in raising growth rates. But the level of growth is still too low to sustain rapid rates of poverty reduction. The increase in growth thus far seems to have come largely from more efficient utilization of existing capacity, rather than from new investment. The challenge for countries is to persist with the reforms implemented to date and to continue to advance towards the policy frontier. This will enhance the credibility of the reform process and help to convince

Table 19. Change in Overall Macroeconomic Policy, 1981-86 to 1987-92 Using Different Weights

Policy index using original equal weights		Policy index using regression based weights	
Large Improvement in Overall Macroeconomic Policy			
Ghana	1.8	Tanzania	2.6
Tanzania	1.8	Ghana	2.1
Gambia, The	1.5	Gambia, The	1.7
Burkina Faso	1.3	Nigeria	1.7
Madagascar	1.2	Zimbabwe	1.6
Zimbabwe	1.0	Madagascar	1.5
		Uganda	1.3
		Burkina Faso	1.2
Small Improvement in Overall Macroeconomic Policy			
Niger	0.8	Burundi	0.8
Uganda	0.8	Malawi	0.8
Burundi	0.7	Mauritania	0.7
Mauritania	0.7	Niger	0.7
Nigeria	0.7	Kenya	0.5
Malawi	0.5	Sierra Leone	0.2
Mali	0.5	Rwanda	0.2
Senegal	0.5	Mozambique	0.1
Kenya	0.3		
Central African Republic	0.2		
Togo	0.2		
No Change or Deterioration in Overall Macroeconomic Policy			
Benin	0.0	Mali	0.0
Rwanda	0.0	Central African Republic	0.0
Sierra Leone	-0.2	Senegal	-0.1
Gabon	-0.5	Togo	-0.2
Zambia	-0.7	Benin	-0.3
Mozambique	-1.0	Zambia	-0.4
Cameroon	-1.2	Gabon	-0.9
Congo	-1.2	Congo	-1.6
Cote d'Ivoire	-1.3	Cameroon	-2.0
		Cote d'Ivoire	-2.0

Note: Policy ranking based on fiscal, monetary and exchange rate policy scores reported in table A2
The regression based weights are 36.7% weight for fiscal policy a 11.8 % weight for monetary policy and a 51.5% weight for exchange rate policy. These weights are derived from regression II in table 11.

investors that the changes made are durable ones, thus providing a more favorable investment climate. As the results here demonstrate the reform process is fragile. The reforms undertaken to date are a good start, but more remains to be done to put in place the macroeconomic conditions necessary (though certainly not sufficient) for broad-based, sustainable growth.

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Annex A: Updating Adjustment in Africa

To update Adjustment in Africa we obtained the 1992 data needed to construct the macroeconomic policies indexes. In addition, many of the data prior to 1992 were also revised to reflect newly available information. The revised data used in assessing country performance are presented in the statistical tables comprising Annex B. Changes in the results obtained in the original study stem from revisions to the economic data as well as changes in policies and outcomes that occur due to the inclusion of the 1992 data. The two effects can be differentiated by recomputing the indexes over the same period covered by the original study (1981-86 to 1987-91 for the index of macroeconomic policy change and 1990-91 for the stance) and comparing the new results to those in the original study. Any change in the results in this case will the result of data revision. The next step is to compare the indexes calculated for the period (through 1991) covered by the original study based on the revised data with the indexes calculated through 1992. The change in policy is computed by comparing the change in the average policy stance from 1981-86 to 1987-92 while the policy stance is computed over the 1991-92 period. Differences in the 1991 and the 1992 end year indexes reflect changes in policy.

Data on macroeconomic outcomes in 1992 and revised data for prior years were also obtained. These data are also presented in Annex B.

I. Changes in Overall Macroeconomic Policies

Table A.1 compares overall macroeconomic index based on the following sets of data: (1) data used in the original study for the periods 1981-86 and 1987-91; (2) revised data, for the periods 1981-86 and 1987-91; (3) revised data, for the period 1981-86 and 1987-92. More detailed information on the calculation of each of these indexes is presented in Tables A.2-A.4. As a result of revisions in the underlying policy data, the overall macroeconomic policy scores of three countries in the study were revised for the periods 1981-86 and 1987-91. As shown in Table A1, data revisions resulted in the movement of Madagascar from the small improvement category to the large improvement classification. Benin and the Central African Republic moved from the deterioration to the small improvement category. Togo had been erroneously classified in Adjustment in Africa as in the deterioration category; with the corrected score of 0.2, it moved into the small improvement category.

With the addition of the 1992 data, two other countries experienced changes in the overall policy score that resulted in changes in the country classification. The policy performance of Benin and Nigeria falls, from little improvement to deterioration in the case of Benin, and from large improvement to small improvement in the case of Nigeria.

The following sections examine how countries fared in the three components–fiscal, monetary, and exchange rate policy–that make up the overall index of macroeconomic change.

A. Changes in Underlying Fiscal Policy

As pointed out earlier, the fiscal policy score is measured by the change in the overall fiscal deficit, excluding grants, with a change in total revenue modifier being added. While the underlying fiscal deficit numbers themselves show many revisions, only in the case of Madagascar and Zambia do these revisions result in a change in the fiscal policy score.[1] Madagascar's fiscal policy score changed because of downward revision to the estimates of the overall fiscal deficit. In the case of Zambia, the estimates of the change in total revenue have been revised downwards. As a result of this revision, Zambia now receives a negative revenue modifier for its revenue collection efforts.

With the addition of the 1992 data the fiscal policy scores of seven countries have been revised: four countries show an improvement in fiscal policy (the Gambia, Mauritania, Niger and Tanzania) and three countries show a deterioration in fiscal policy (Congo, Malawi, and Mozambique). Without exception, all of the changes in the fiscal policy scores result from changes in the overall fiscal deficit and not from the revenue modifier.

B. Changes in Monetary Policy

The score for monetary policy is composed of the average of the score for the change in seignorage and the score for inflation.[2] As was indicated in the paper, the estimates of seignorage used in the study are corrected for increases in the real demand for money. Revisions to both the money aggregates as well as real GDP will therefore affect the estimates of seignorage. The monetary policy score of five countries changed as a result of revised data with the monetary policy scores of two countries (Benin and Mauritania) revised downwards and the scores of three countries (Burundi, Cameroon, and Zambia) revised upwards. In the case of Benin, both the estimates of seignorage and inflation were revised. The estimate of seignorage was revised downwards, improving the score, while the revised estimate of inflation was revised upwards (inflation did not fall as much as original data indicated) with the impact being a deterioration in the score. The score on seignorage outweighs the inflation score with the result being an improvement in the monetary policy score for Benin. For Burundi, estimates of seignorage were not available in the original study. With the revised data, however, estimates of seignorage were obtained and they have a positive impact on the monetary policy score. The seignorage estimates for Zambia were revised downwards with the results being a positive impact on the monetary policy score. In addition to Benin, the inflation scores of Cameroon and Mauritania were revised. Cameroon's inflation rate was revised downwards, with a positive impact on the score, while the Mauritania's was revised upwards, with a negative impact on the score.

The addition of 1992 data on seignorage and inflation changed the monetary policy score of five countries. With the exception of Nigeria, all of these changes had a positive impact on the monetary policy score. Cameroon had an improvement in its seignorage score as did Gabon, which also had an improvement in its inflation score. Niger and Uganda also had an improvement the inflation score. Nigeria, on the other hand, saw a deterioration in both its seignorage and inflation score. This is consistent with the monetization of the increase in Nigeria's fiscal deficit.

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[1] In the case of Ghana, Adjustment in Africa used the narrow definition of the deficit while this paper uses the broad definition.

[2] In the original study three measures of inflation were intermixed: the CPI deflator, the GDP deflator and the personal consumption deflator. The revised data only uses the CPI deflator and the GDP deflator. Since indicators in this paper only use data from 1980 onwards, the lack of data availability for the 1970s is not a problem. In Adjustment in Africa, if the CPI was not available for the period 1970-91, the PC deflator was used. In this paper, if the CPI deflator was available for the 1980s, it was used, otherwise the GDP deflator was used.

C. Exchange Rate Policy

As noted earlier, whether the exchange rate policy score is a composite of the change in real effective exchange rate and the black market premium depends on the country's exchange rate regime. For the non-CFA countries, the exchange rate policy score is the average of the two while for the CFA countries. Only the real exchange rate enters into the exchange rate policy score. The real exchange data comes from two sources: from the World Bank's Africa Region for the countries in the CFA franc zone and from the IMF for all other countries. Change in the real exchange rate can come from revisions to domestic or foreign inflation rates as well as revisions to the trade weights used to compute the index.

With the revised data, six countries experienced a change in their exchange rate policy score. Two countries (The Gambia and Zambia) experienced a negative change to the score while four countries (Benin, Burkina Faso, Central African Republic and Gabon) experienced a positive change to the exchange rate score. Only in the case of The Gambia did data revisions result in a change in the black market premium score. All other changes were due to revisions in the real effective exchange rate.

With the addition of 1992, two countries (The Gambia and Rwanda) experienced an improvement in the exchange rate score while two countries (Benin and Kenya) suffered a deterioration in their exchange rate score.

II. Changes to the Overall Macroeconomic Policy Stance

Table A.5 compares the overall macroeconomic policy stance, computed as follows: (1) original data, for the period 1990-91; (2) revised data, for the period 1990-91; (3) revised data, for the period 1991-92. Tables A.6-A.8 provide information on the fiscal, monetary and exchange rate stance used in calculating each of indexes. The overall macroeconomic policy stance in Africa did not change significantly as a result of data revisions to the underlying policy data. Three countries moved up in the policy rankings (The Gambia, Niger, and Tanzania), while four countries moved down (Burkina Faso, Gabon, Ghana and Nigeria). As will be seen in the next section, the changes in overall rankings due to data revisions stemmed mainly from revised fiscal and real interest rate data.

The policy stance in the sample countries deteriorated in 1991-92 period compared to the 1990-91 period. Seven countries dropped in ranking and only two countries increased in ranking. While thirteen countries were classified as having a poor or very poor policy stance in 1990-91, using the 1991-92 period, this number increased to sixteen. While two countries showed improvement--Burkina Faso and Mozambique moved from the classification of poor/very poor to that of fair, Kenya, Madagascar, Malawi, Mali, and Togo dropped from the fair to the poor/very poor categories. Nigeria, Rwanda and Zimbabwe moved from poor to very poor. The majority of the countries changed categories because of changes in fiscal and exchange rate policy. Changes in monetary policy did not, for the most part, have any impact on the classification of the sample countries.

A. Changes in the Fiscal Policy Stance

The fiscal policy stance, measured as the overall fiscal deficit, including external grants, was also subject to data revisions. The ranking of fiscal policy for eight countries changed with the revised 1990-91 data. In five cases, the fiscal policy stance deteriorated, while in three cases it improved.

With the 1992 data, seven countries experienced a decline in the fiscal policy stance while four countries improved their fiscal policy stance. Overall, the fiscal policy stance in the sample countries is poor. In the 1990-91 period, in 17 countries fiscal policy is classified as poor or very poor. Four additional countries move into these categories with the inclusion of the 1992 data. Ghana, Malawi, Madagascar and Togo had been classified as have a fair or good fiscal stance in the 1990-91 period and are now are classified in the lower two categories. Conversely, only Burkina Faso improved its fiscal policy stance in the 1991-92 period by moving into the upper two categories.

B. Changes in the Monetary Policy Stance

Almost all the data revisions to the monetary policy stance came through the real interest rate indicator, as the 1991 real interest rates were calculated using expected inflation (1992 inflation data) instead of actual inflation in 1991 as in the original study. Two countries improved a category: Congo and Tanzania, while six countries dropped a category: Central African Republic, Gabon, Ghana, Kenya, Nigeria, and Uganda.

The 1991-92 period showed a deterioration in the monetary policy stance. Eight countries were classified as having a poor or very poor monetary policy stance in the 1990-91 period. This number increased by one with the inclusion of the 1992 data. Madagascar dropped into the lower two categories as a result of a deterioration in the seignorage indicators. Three other countries fell by one category, while one country improved.

C. Changes in the Exchange Rate Policy Stance

The exchange rate policy stance was fairly robust to data revisions. In only three cases did the exchange rate policy stance change with data revisions. The Gambia, Madagascar and Mozambique had revised information on their parallel market exchange rate premium, which resulted in a shift in category.

None of the exchange rate policy stances in the CFA countries changed with the inclusion of 1992 data. For the non-CFA countries, however, three countries improved their exchange rate policy stance by reducing their premium and six countries experienced a decline in their exchange rate policy stance with the widening of their premium. Overall sixteen countries were classified as having a poor or very poor exchange rate policy stance in the 1990-91 period. This number increased to twenty with the 1991-92 data. The majority of the countries in these lower two categories are CFA countries.

Table A1. Revisions and Changes to the Overall Macroeconomic Policy Score

Original data		Revised data			
Change in policies, 1981/86 to 1987/91		Change in policies, 1981/86 to 1987/91		Change in policies, 1981/86 to 1987/92	
Large Improvement in Overall Macroeconomic Policies					
Ghana	2.2	Ghana	1.8	Ghana	1.8
Tanzania	1.5	Tanzania	1.5	Tanzania	1.8
Gambia, The	1.2	Burkina Faso	1.3	Gambia, The	1.5
Burkina Faso	1.0	Madagascar	1.2	Burkina Faso	1.3
Nigeria	1.0	Gambia, The	1.0	Madagascar	1.2
Zimbabwe	1.0	Nigeria	1.0	Zimbabwe	1.0
		Zimbabwe	1.0		
Small Improvement in Overall Macroeconomic Policies					
Madagascar	0.8	Malawi	0.8	Niger	0.8
Malawi	0.8	Burundi	0.7	Uganda	0.8
Burundi	0.5	Kenya	0.5	Burundi	0.7
Kenya	0.5	Mali	0.5	Mauritania	0.7
Mali	0.5	Senegal	0.5	Nigeria	0.7
Mauritania	0.5	Benin	0.3	Malawi	0.5
Senegal	0.5	Mauritania	0.3	Mali	0.5
Niger	0.3	Niger	0.3	Senegal	0.5
Togo	0.2	Central African Republic	0.2	Kenya	0.3
Uganda	0.2	Togo	0.2	Central African Republic	0.2
		Uganda	0.2	Togo	0.2
Deterioration or no Change in Overall Macroeconomic Policies					
Benin	-0.2	Rwanda	-0.2	Benin	0.0
Central African Republic	-0.2	Sierra Leone	-0.2	Rwanda	0.0
Rwanda	-0.2	Mozambique	-0.7	Sierra Leone	-0.2
Sierra Leone	-0.2	Zambia	-0.7	Gabon	-0.5
Zambia	-0.3	Congo	-0.8	Zambia	-0.7
Mozambique	-0.7	Gabon	-0.8	Mozambique	-1.0
Congo	-0.8	Cameroon	-1.3	Cameroon	-1.2
Cote d'Ivoire	-1.3	Cote d'Ivoire	-1.3	Congo	-1.2
Cameroon	-1.5			Cote d'Ivoire	-1.3
Gabon	-1.5				

A score of 1.0 or more reflects a large improvement in macroeconomic policies; 0 to 1.0, a small improvement; and 0 and below, a deterioration.
Source: Tables A2, A3 and A4.

Table A2. Change in Macroeconomic Policies, 1981-86 to 1987-91
(from Adjustment in Africa)

Country	Fiscal policy: Change in overall fiscal balance excluding grants, Percentage points	score	Fiscal policy: Change in total revenue, Percentage points	score	Change in fiscal policy (score)	Monetary policy: Change in seigniorage, Percentage points	score	Monetary policy: Change in inflation, Percentage points	score	Change in monetary policy (score)	Exchange rate policy: Change in the real effective exchange rate, Percentage points	score	Exchange rate policy: Change in the parallel market exchange rate premium, Percentage points	score	Change in exchange rate policy (score)	Overall change in macroeconomic policies (score)	
Benin	4.0	2	-3.6	0	2	3.6	-2	-2.7	1	-0.5	-12.2	-2			-2	-0.2	Benin
Burkina Faso	6.8	3	0.4	0	3	-0.7	1	-5.2	1	1	-5.7	-1			-1	1.0	Burkina Faso
Burundi	0.1	0	2.0	0	0	0.0	0	0.2	0	0	56.7	3	-4.9	0	1.5	0.5	Burundi
Cameroon	-8.3	-2	-6.2	-1	-3	-0.5	0	-7.1	1	0.5	-27.1	-2			-2	-1.5	Cameroon
Central African Republic	-5.9	-2	-1.9	0	-2	-1.2	1	-11.6	2	1.5	1.4	0			0	-0.2	Central African Republic
Congo	-4.2	-1	-12.8	-1	-2	0.2	0	-7.9	1	0.5	-6.7	-1			-1	-0.8	Congo
Cote d'Ivoire	-6.5	-2	-6.0	-1	-3	-1.7	1	-3.8	1	1	-20.8	-2			-2	-1.3	Cote d'Ivoire
Gabon	-8.3	-2	-10.7	-1	-3	-0.2	0	-7.9	1	0.5	-19.2	-2			-2	-1.5	Gabon
Gambia, The	4.5	2	2.6	0	2	-0.4	0	-7.9	1	0.5	16.7	2	3.1	0	1	1.2	Gambia, The
Ghana /a	2.8	1	5.7	1	2	-1.0	1	-25.7	2	1.5	283.7	3	-1080.6	3	3	2.2	Ghana
Kenya	0.2	0	-0.5	0	0	-0.3	0	-1.9	0	0	42.7	3	-4.6	0	1.5	0.5	Kenya
Madagascar	0.3	0	-0.7	0	0	0.7	0	-6.7	1	0.5	99.2	3	-28.0	1	2	0.8	Madagascar
Malawi	4.4	2	0.0	0	2	0.7	0	8.9	-1	-0.5	8.4	1	-27.1	1	1	0.8	Malawi
Mali	2.5	1	2.3	0	1	-2.5	2	-3.8	1	1.5	-9.2	-1			-1	0.5	Mali
Mauritania	2.8	1	2.0	0	1	-0.2	0	-3.0	1	0.5	31.7	3	52.3	-3	0	0.5	Mauritania
Mozambique	-9.2	-2	-0.5	0	-2	0.0		47.1	-3	-3	86.9	3	-2030.5	3	3	-0.7	Mozambique
Niger	-2.4	-1	-1.0	0	-1	-0.9	1	-10.0	1	1	4.3	1			1	0.3	Niger
Nigeria	-1.0	0	3.7	1	1	1.4	-1	8.9	-1	-1	404.4	3	-197.4	3	3	1.0	Nigeria
Rwanda	-3.1	-1	0.7	0	-1	0.0	0	1.1	0	0	8.1	1	-7.8	0	0.5	-0.2	Rwanda
Senegal	4.1	2	-0.6	0	2	-1.8	1	-12.4	2	1.5	-14.0	-2			-2	0.5	Senegal
Sierra Leone	2.0	1	-0.6	0	1	0.2	0	40.7	-3	-1.5	34.8	3	398.2	-3	0	-0.2	Sierra Leone
Tanzania	4.1	2	1.0	0	2	2.4	-2	-4.8	1	-0.5	255.4	3	-164.1	3	3	1.5	Tanzania
Togo	0.6	0	-6.2	-1	-1	-2.9	2	-6.6	1	1.5	-4.7	0			0	0.2	Togo
Uganda	0.3	0	-2.6	0	0	0.0		27.6	-2	-2	46.5	3	-41.3	2	2.5	0.2	Uganda
Zambia	2.4	1	-3.8	0	1	1.1	-1	60.3	-3	-2	65.0	3	230.8	-3	0	-0.3	Zambia
Zimbabwe	-0.8	0	5.8	1	1	1.3	-1	-0.1	0	-0.5	50.0	3	-37.2	2	2.5	1.0	Zimbabwe

Source: Authors' calculations.

Note: Fiscal policy scores: A change in the fiscal deficit of less than -10 percentage points was given a score of -3; from -10 to -5, a score of -2; from -5 to -2, a score of -1; from -2 to 1, a score of 0; from 1 to 3, a score of 1; from 3 to 5, a score of 2; and a deficit greater than 5, a score of 3.
If the change in total revenues was less than -4, the fiscal score was decreased by 1; if the change was greater than 3, the score was increased by 1.
Monetary policy scores: A change in seigniorage of greater than 4 was given a score of -3; from 2 to 4, a score of -2; from 1 to 2, a score of -1; -0.5 to 1, a score of 0; -2 to -0.5, a score of 1; -3 to -2, a score of 2; less than -3, a score of 3. A change in inflation of greater than 31 percent was given a score of -3; from 10 to 31, a score of -2; from 5 to 10, a score of -1; from -2.5 to 5, a score of 0; from -10 to -2.5, a score of 1; from -30 to -10, a score of 2; and less than -30, a score of 3. The overall monetary policy score was, where possible, a simple average of the seigniorage and inflation scores.
Exchange rate policy scores: A change in the REER of less than -10 was given a score of [illegible]; from -10 to -5, a score of -1; from -5 to 2, a score of 0; from 2 to 15, a score of 1; from 15 to 31, a score of 2; greater than 31, a score of 3. A change in the premium of greater than 30 was given a score of -3; from 15 to 30, a score of -2; from 4 to 15, a score of -1; from -10 to 5, a score of 0; from -30 to -10, a score of 1; from -100 to -30, a score of 2; and less than -100, a score of 3. The exchange rate policy score is a simple average of the REER and the premium score.
The overall macroeconomic policy score is a simple average of the fiscal, monetary and exchange rate policy scores.
/a Ghana - narrow deficit definition.

Table A3. Change in Macroeconomic Policies, 1981-86 to 1987-91
(Updated and revised data)

	Fiscal policy					Monetary policy					Exchange rate policy						
	Change in overall fiscal balance excluding grants		Change in total revenue		Change in fiscal policy	Change in seigniorage		Change in inflation		Change in monetary policy	Change in the real effective exchange rate		Change in the parallel market exchange rate premium		Change in exchange rate policy	Overall change in macroeconomic policies	
Country	Percentage points	score	Percentage points	score	(score)	Percentage points	score	Percentage points	score	(score)	Percentage points	score	Percentage points	score	(score)	(score)	
Benin	4.0	2	-3.6	0	2	0.4	0	-1.9	0	0	-9.9	-1			-1	0.3	Benin
Burkina Faso	7.8	3	-0.3	0	3	-0.8	1	-5.6	1	1	-4.4	0			0	1.3	Burkina Faso
Burundi	-0.6	0	1.9	0	0	-1.0	1	0.2	0	0.5	51.7	3	-4.9	0	1.5	0.7	Burundi
Cameroon	-8.7	-2	-8.7	-1	-3	-0.4	0	-10.2	2	1	-29.9	-2			-2	-1.3	Cameroon
Central African Republic	-7.0	-2	-1.8	0	-2	-1.1	1	-11.2	2	1.5	2.5	1			1	0.2	Central African Republic
Congo	-4.6	-1	-11.9	-1	-2	0.4	0	-8.9	1	0.5	-5.8	-1			-1	-0.8	Congo
Cote d'Ivoire	-7.2	-2	-8.7	-1	-3	-1.8	1	-2.7	1	1	-25.1	-2			-2	-1.3	Cote d'Ivoire
Gabon	-8.3	-2	-11.9	-1	-3	-0.3	0	-8.9	1	0.5	-2.8	0			0	-0.8	Gabon
Gambia, The	4.4	2	2.5	0	2	-0.4	0	-7.9	1	0.5	21.3	2	4.8	-1	0.5	1.0	Gambia, The
Ghana \a	-0.3	0	5.3	1	1	-0.8	1	-25.7	2	1.5	247.9	3	-1080.8	3	3	1.8	Ghana
Kenya	0.5	0	-0.3	0	0	-0.2	0	1.5	0	0	30.2	3	-4.8	0	1.5	0.5	Kenya
Madagascar	1.9	1	0.9	0	1	0.7	0	-5.2	1	0.5	98.1	3	-24.8	1	2	1.2	Madagascar
Malawi	4.4	2	0.1	0	2	0.6	0	5.9	-1	-0.5	8.0	1	-27.9	1	1	0.8	Malawi
Mali	2.3	1	2.1	0	1	-2.7	2	-5.2	1	1.5	-9.7	-1			-1	0.5	Mali
Mauritania	2.7	1	2.1	0	1	-0.3	0	-1.7	0	0	32.2	3	79.7	-3	0	0.3	Mauritania
Mozambique	-9.0	-2	-0.6	0	-2	0.0		43.9	-3	-3	107.2	3	-1845.4	3	3	-0.7	Mozambique
Niger	-2.0	-1	-1.2	0	-1	-0.9	1	-10.0	1	1	4.9	1			1	0.3	Niger
Nigeria	-1.7	0	3.7	1	1	1.4	-1	9.9	-1	-1	336.2	3	-188.7	3	3	1.0	Nigeria
Rwanda	-3.3	-1	0.4	0	-1	-0.2	0	1.1	0	0	11.9	1	-7.0	0	0.5	-0.2	Rwanda
Senegal	4.4	2	-0.5	0	2	-1.7	1	-12.4	2	1.5	-13.8	-2			-2	0.5	Senegal
Sierra Leone	1.9	1	-0.1	0	1	0.4	0	40.7	-3	-1.5	57.8	3	309.4	-3	0	-0.2	Sierra Leone
Tanzania	4.7	2	0.6	0	2	2.4	-2	-4.8	1	-0.5	238.1	3	-164.2	3	3	1.5	Tanzania
Togo	0.6	0	-8.2	-1	-1	-2.7	2	-6.4	1	1.5	-4.1	0			0	0.2	Togo
Uganda	0.3	0	-2.8	0	0	0.0		13.2	-2	-2	46.3	3	-40.7	2	2.5	0.2	Uganda
Zambia	1.6	1	-5.1	-1	0	0.9	0	81.7	-3	-1.5	25.0	2	292.4	-3	-0.5	-0.7	Zambia
Zimbabwe	-0.5	0	5.2	1	1	1.4	-1	-0.3	0	-0.5	49.4	3	-37.2	2	2.5	1.6	Zimbabwe

Source: Authors' calculations.

Note: *Fiscal policy scores.* A change in the fiscal deficit of less than -10 percentage points was given a score of -3, from -10 to -6, a score of -2, from -6 to -2, a score of -1; from -2 to 1, a score of 0, from 1 to 3, a score of 1, from 3 to 5, a score of 2, and a deficit greater than 5, a score of 3.
If the change in total revenues was less than -4, the fiscal score was decreased by 1. If the change was greater than 3, the score was increased by 1.

Monetary policy scores. A change in seigniorage of greater than 4 was given a score of -3, from 2 to 4, a score of -2, from 1 to 2, a score of -1, -0.5 to 1, a score of 0, -2 to -0.5, a score of 1; -3 to -2, a score of 2; less than -3, a score of 3. A change in inflation of greater than 31 percent was given a score of -3, from 10 to 31, a score of -2, from 3 to 10, a score of -1; from -2.5 to 3, a score of 0, from -10 to -2.5, a score of 1, from -50 to -10, a score of 2, and less than -50, a score of 3. The overall monetary policy score was, where possible, a simple average of the seigniorage and inflation scores.

Exchange rate policy scores. A change in the REER of less than -15 was given a score of -10, from -10 to -5, a score of -1; from -5 to 2, a score of 0, from 2 to 15, a score of 1, from 15 to 31, a score of 2, greater than 31, a score of 3. A change in the premium of greater than 50 was given a score of -3, from 15 to 50, a score of -2, from 4 to 15, a score of -1, from -10 to 5, a score of 0, from -30 to -10, a score of 1, from -100 to -30, a score of 2, and less than -100, a score of 3. The exchange rate policy score is a simple average of the REER and the premium score.

The overall macroeconomic policy score is a simple average of the fiscal, monetary and exchange rate policy scores.

/a Ghana - Broad deficit definition.

Table A4. Change in Macroeconomic Policies, 1981-86 to 1987-92
(Updated and revised data)

Country	Fiscal policy: Change in overall fiscal balance excluding grants – Percentage points	Fiscal policy: Change in overall fiscal balance excluding grants – score	Fiscal policy: Change in total revenue – Percentage points	Fiscal policy: Change in total revenue – score	Fiscal policy: Change in fiscal policy (score)	Monetary policy: Change in seigniorage – Percentage points	Monetary policy: Change in seigniorage – score	Monetary policy: Change in inflation – Percentage points	Monetary policy: Change in inflation – score	Monetary policy: Change in monetary policy (score)	Exchange rate policy: Change in the real effective exchange rate – Percentage points	Exchange rate policy: Change in the real effective exchange rate – score	Exchange rate policy: Change in the parallel market exchange rate premium – Percentage points	Exchange rate policy: Change in the parallel market exchange rate premium – score	Exchange rate policy: Change in exchange rate policy (score)	Overall change in macroeconomic policies (score)	
Benin	4.3	2	-3.4	0	2	0.4	0	-0.5	0	0	-10.9	-2			-2	0.0	Benin
Burkina Faso	5.3	3	-0.3	0	3	-0.9	1	-6.1	1	1	-3.6	0			0	1.3	Burkina Faso
Burundi	-0.8	0	2.1	0	0	-1.0	1	-0.4	0	0.5	59.5	3	1.0	0	1.5	0.7	Burundi
Cameroon	-8.4	-2	-6.7	-1	-3	-1.0	1	-10.4	2	1.5	-32.2	-2			-2	-1.2	Cameroon
Central African Republic	-7.2	-2	-2.2	0	-2	-1.1	1	-11.0	2	1.5	4.0	1			1	0.2	Central African Republic
Congo	-5.8	-2	-11.7	-1	-3	0.7	0	-7.0	1	0.5	-5.8	-1			-1	-1.2	Congo
Cote d'Ivoire	-7.1	-2	-7.0	-1	-3	-1.8	1	-2.8	1	1	-25.5	-2			-2	-1.3	Cote d'Ivoire
Gabon	-7.8	-2	-11.7	-1	-3	-0.7	1	-10.7	2	1.5	-0.9	0			0	-0.5	Gabon
Gambia, The	5.3	3	2.7	0	3	-0.4	0	-8.4	1	0.5	21.3	2	3.0	0	1	1.5	Gambia, The
Ghana a/	-1.3	0	4.9	1	1	-0.6	1	-29.1	2	1.5	255.1	3	-1081.7	3	3	1.8	Ghana
Kenya	0.6	0	-0.2	0	0	0.6	0	4.2	0	0	31.0	3	11.5	-1	1	0.3	Kenya
Madagascar	1.4	1	0.7	0	1	0.8	0	-5.1	1	0.5	98.0	3	-26.3	1	2	1.2	Madagascar
Malawi	2.9	1	0.1	0	1	0.8	0	6.5	-1	-0.5	8.0	1	-25.6	1	1	0.5	Malawi
Mali	2.2	1	1.7	0	1	-2.6	2	-4.7	1	1.5	-8.5	-1			-1	0.5	Mali
Mauritania	3.0	2	1.6	0	2	-0.5	0	-1.2	0	0	32.6	3	73.1	-3	0	0.7	Mauritania
Mozambique	-10.2	-3	0.2	0	-3	0.0		40.5	-3	-3	107.2	3	-1853.5	3	3	-1.0	Mozambique
Niger	-1.8	0	-1.5	0	0	-1.1	1	-10.1	2	1.5	7.1	1			1	0.8	Niger
Nigeria	-1.7	0	3.7	1	1	2.1	-2	12.8	-2	-2	369.9	3	-185.5	3	3	0.7	Nigeria
Rwanda	-4.5	-1	0.5	0	-1	0.1	0	1.7	0	0	18.8	2	3.2	0	1	0.0	Rwanda
Senegal	4.7	2	-0.4	0	2	-1.6	1	-12.2	2	1.5	-13.1	-2			-2	0.5	Senegal
Sierra Leone	2.3	1	0.4	0	1	-0.3	0	35.3	-3	-1.5	66.2	3	339.8	-3	0	-0.2	Sierra Leone
Tanzania	5.2	3	1.6	0	3	2.4	-2	-5.4	1	-0.5	261.1	3	-175.0	3	3	1.8	Tanzania
Togo	0.6	0	-6.2	-1	-1	-2.7	2	-6.2	1	1.5	-3.9	0			0	0.2	Togo
Uganda	-1.2	0	-2.7	0	0	0.0		4.8	0	0	66.6	3	-62.6	2	2.5	0.8	Uganda
Zambia	2.0	1	-5.4	-1	0	0.9	0	79.0	-3	-1.5	23.1	2	235.9	-3	-0.5	-0.7	Zambia
Zimbabwe	-0.2	0	5.5	1	1	1.1	-1	4.3	0	-0.5	60.1	3	-39.5	2	2.5	1.0	Zimbabwe

Source: Authors' calculations.

Note: Fiscal policy scores: A change in the fiscal deficit of less than -10 percentage points was given a score of -3, from -10 to -5, a score of -2, from -5 to -2, a score of -1, from -2 to 1, a score of 0, from 1 to 3, a score of 1, from 3 to 5, a score of 2, and a deficit greater than 5, a score of 3.
If the change in total revenues was less than -4, the fiscal score was decreased by 1; if the change was greater than 3, the score was increased by 1.
Monetary policy scores: A change in seigniorage of greater than 4 was given a score of -3, from 2 to 4, a score of -2; from 1 to 2, a score of -1; -0.5 to 1, a score of 0; -2 to -0.5, a score of 1; -3 to -2, a score of 2; less than -3, a score of 3. A change in inflation of greater than 31 percent was given a score of -3, from 10 to 31, a score of -2, from 5 to 10, a score of -1; from -2.5 to 5, a score of 0; from -10 to -2.5, a score of 1; from -60 to -10, a score of 2; and less than -60, a score of 3. The overall monetary policy score was, where possible, a simple average of the seigniorage and inflation scores.
Exchange rate policy scores: A change in the REER of less than -10 was given a score of -2; from -10 to -5, a score of -1; from -5 to 2, a score of 0; from 2 to 15, a score of 1; from 15 to 31, a score of 2; greater than 31, a score of 3. A change in the premium of greater than 50 was given a score of -3; from 15 to 50, a score of -2; from 4 to 15, a score of -1; from -10 to 5, a score of 0; from -30 to -10, a score of 1; from -100 to -30, a score of 2; and less than -100, a score of 3. The exchange rate policy score is a simple average of the REER and the premium score.
The overall macroeconomic policy score is a simple average of the fiscal, monetary and exchange rate policy scores.
a/ Ghana - Broad deficit definition.

Table A5. Overall Macroeconomic Policy Stance

Original data		Revised data			
Policy Stance, 1990-91		Policy Stance, 1990-91		Policy Stance, 1991-92	
Adequate Macroeconomic Policy Stance					
Ghana	1.2	Gambia, The	1.3	Gambia, The	1.3
Fair Macroeconomic Policy Stance					
Burundi	1.7	Uganda	1.8	Tanzania	2.0
The Gambia	1.8	Ghana	1.9	Burkina Faso	2.2
Madagascar	1.8	Burundi	2.0	Ghana	2.2
Malawi	1.9	Madagascar	2.0	Mauritania	2.2
Burkina Faso	2.0	Malawi	2.0	Niger	2.2
Kenya	2.0	Kenya	2.2	Senegal	2.2
Gabon	2.1	Mauritania	2.2	Burundi	2.3
Mauritania	2.2	Niger	2.2	Mozambique	2.3
Senegal	2.2	Senegal	2.2	Uganda	2.3
Togo	2.2	Mali	2.3		
Mali	2.3	Tanzania	2.3		
Nigeria	2.3	Togo	2.3		
Uganda	2.3				
Poor Macroeconomic Policy Stance					
Central African Republic	2.4	Burkina Faso	2.4	Benin	2.4
Niger	2.6	Benin	2.6	Mali	2.4
Benin	2.7	Gabon	2.6	Gabon	2.6
Tanzania	2.7	Nigeria	2.6	Madagascar	2.7
Rwanda	2.8	Rwanda	2.6	Togo	2.7
Zimbabwe	2.9	Zimbabwe	2.8	Central African Republic	2.9
		Central African Republic	2.9		
Very Poor Macroeconomic Policy Stance					
Cote d'Ivoire	3.1	Congo	3.1	Cote d'Ivoire	3.1
Cameroon	3.2	Cote d'Ivoire	3.1	Malawi	3.1
Congo	3.3	Cameroon	3.2	Cameroon	3.2
Mozambique	3.7	Mozambique	3.3	Congo	3.2
Sierra Leone	4.0	Sierra Leone	4.0	Rwanda	3.2
Zambia	4.0	Zambia	4.0	Kenya	3.3
				Zambia	3.3
				Zimbabwe	3.3
				Nigeria	3.6
				Sierra Leone	3.7

A score of less than 1.4 is considered adequate; 1.4 to 2.3, fair; 2.4 to 3.0, poor; and 3.0 and above, very poor.
Source: Tables A6, A7 and A8.

Table A6. Components of Macroeconomic Policy Stance, 1990-91

'from Adjustment in Africa)

Country	Fiscal policy: Overall fiscal balance including grants (% of GDP)	Fiscal policy score	Monetary Policy: Seigniorage Percent	Seigniorage Score	Inflation Percent	Inflation Score	Real interest rate Percent	Real interest rate Score	Monetary policy score	Exchange rate policy: Parallel market exchange rate premium (percent)		Change in the real effective exchange rate since 1980 (percent)		Exchange rate policy score	Overall macroeconomic policy score	
Benin	-6.3	3	2.7	3	0.1	1	6.6	2	2.0			10.8	3	3	2.7	Benin
Burkina Faso	-3.4	2	-0.1	1	1.9	1	2.6	1	1.0			10.3	3	3	2.0	Burkina Faso
Burundi	-3.3	2			8.0	1			1.0	20.9	2			2	1.7	Burundi
Cameroon	-8.6	4	0.0	1	0.5	1	8.7	3	1.7			-18.0	4	4	3.2	Cameroon
Central African Republic	-6.5	3	-0.6	1	0.3	1	6.8	2	1.3			9.1	3	3	2.4	Central African Republic
Congo	-7.7	4	0.8	2	-0.3	1	8.7	3	2.0			-9.2	4	4	3.3	Congo
Cote d'Ivoire	-13.0	4	0.4	1	0.6	1	5.4	2	1.3			2.8	4	4	3.1	Cote d'Ivoire
Gabon	-1.8	2	0.2	1	5.2	1	6.7	2	1.3			7.8	3	3	2.1	Gabon
The Gambia	2.7	1	1.8	3	10.4	2	3.2	2	2.3	21.3	2			2	1.8	The Gambia
Ghana \a	0.9	1	0.4	1	27.6	3	2.8	1	1.7	3.4	1			1	1.2	Ghana \a
Kenya	-5.6	3	1.8	3	13.3	2	-1.0	1	2.0	7.3	1			1	2.0	Kenya
Madagascar	-5.1	3	1.5	2	6.5	1			1.5	7.1	1			1	1.8	Madagascar
Malawi	-2.5	2	1.0	2	12.2	2	-0.3	1	1.7	29.4	2			2	1.9	Malawi
Mali	-5.3	3	-0.6	1	3.3	1	2.8	1	1.0			10.8	3	3	2.3	Mali
Mauritania	-0.9	1	1.1	2	6.6	1			1.5	166.6	4			4	2.2	Mauritania
Mozambique	-9.0	4			35.9	3			3.0	62.6	4			4	3.7	Mozambique
Niger	-7.3	4	-0.7	1	-4.3	1	16.0	3	1.7			28.0	2	2	2.6	Niger
Nigeria	-4.5	3	2.9	3	10.2	2	1.7	1	2.0	25.1	2			2	2.3	Nigeria
Rwanda	-7.0	3	0.8	2	11.9	2	-9.9	3	2.3	47.5	3			3	2.8	Rwanda
Senegal	-1.1	1	-0.8	1	-0.7	1	8.9	3	1.7			-4.0	4	4	2.2	Senegal
Sierra Leone	-7.7	4	6.2	4	106.8	4	-30.7	4	4.0	104.4	4			4	4.0	Sierra Leone
Tanzania	-0.9	1	7.6	4	21.0	2			3.0	74.5	4			4	2.7	Tanzania
Togo	-3.3	2	1.4	2	1.0	1	5.9	2	1.7			9.7	3	3	2.2	Togo
Uganda	-4.1	3			32.2	3	-2.9	1	2.0	24.6	2			2	2.3	Uganda
Zambia	-8.5	4	4.0	4	101.8	4			4.0	149.7	4			4	4.0	Zambia
Zimbabwe	-8.3	4	2.5	3	20.8	2	-12.5	3	2.7	2[illegible].5	2			2	2.9	Zimbabwe

Source: Authors' calculations.
Note: Fiscal policy stance: A fiscal deficit greater than -1.5 percent was given a score of 1; from -1.5 to -3.5, a score of 2; from -3.5 to -7, a score of 3; less than -7, a score of 4.
Monetary policy stance: Seignoirage less than 0.5 was given a score of 1; 0.5 to 1.5, a score of 2; 1.5 to 3, a score of 3; greater than 3, a score of 4. Inflation less than 10 was given a score of 1; 10 to 25, a score of 2; 25 to 50, a score of 3, greater than 50, a score of 4. A real interest rate between 3 and -3 was given a score of 1, 3 to 7 or -3 to -7, a score of 2; greater than 7 or -7 to -15, a score of 3; less than -15, a score of 4.
The overall monetary policy score is a simple average of the seignoirage, inflation and real interest rate score.
Exchange rate policy stance: A premium of less than 10 was given a score of 1; 10 to 30, a score of 2; 20 to 50, a score of 3; greater than 50, a score of 4. A REER of greater than 40 was given a score of 1; 20 to 40, a score of 2; 6 to 20, a score of 3; less than 5, a score of 4.
The overall macroeconomic policy score is the average of the fiscal monetary and exchange rate policy scores.
\a Ghana - Narrow deficit definition.

Table A7. Components of Macroeconomic Policy Stance, 1990-91
(Updated and revised data)

Country	Fiscal policy: Overall fiscal balance including grants (% of GDP)	Fiscal policy score	Monetary Policy: Seignlorage Percent	Seignlorage Score	Inflation Percent	Inflation Score	Real interest rate Percent	Real interest rate Score	Monetary policy score	Exchange rate policy: Parallel market exchange rate premium (percent)		Change in the real effective exchange rate since 1980 (percent)		Exchange rate policy score	Overall macroeconomic policy score	
Benin	-6.2	3	2.7	3	1.7	1	1.2	1	1.7			16.2	3	3	2.6	Benin
Burkina Faso	-4.3	3	-0.2	1	0.8	1	6.8	2	1.3			13.4	3	3	2.4	Burkina Faso
Burundi	-5.1	3			8.0	1			1.0	21.0	2			2	2.0	Burundi
Cameroon	-8.3	4	0.3	1	3.8	1	8.0	3	1.7			-24.5	4	4	3.2	Cameroon
Central African Republic	-9.5	4	-0.5	1	-1.4	1	9.6	3	1.7			12.2	3	3	2.9	Central African Republic
Congo	-10.1	4	1.1	2	2.2	1	2.1	1	1.3			-7.8	4	4	3.1	Congo
Cote d'Ivoire	-13.7	4	0.2	1	0.5	1	4.3	2	1.3			-1.6	4	4	3.1	Cote d'Ivoire
Gabon	-4.5	3	0.2	1	4.0	1	14.4	3	1.7			9.1	3	3	2.8	Gabon
Gambia, The	2.7	1	1.9	3	10.4	2	2.7	1	2.0	-2.2	1			1	1.3	Gambia, The
Ghana a\	-2.9	2	0.7	2	27.7	3	10.2	3	2.7	3.4	1			1	1.9	Ghana a\
Kenya	-4.9	3	2.1	3	17.7	2			2.5	7.3	1			1	2.2	Kenya
Madagascar	-2.8	2	1.5	2	10.2	2			2.0	19.0	2			2	2.0	Madagascar
Malawi	-2.6	2	1.3	2	12.2	2	-4.4	2	2.0	29.4	2			2	2.0	Malawi
Mali	-5.1	3	-0.7	1	3.0	1	2.8	1	1.0			9.2	3	3	2.3	Mali
Mauritania	-0.7	1	1.0	2	6.3	1	-4.3	2	1.7	166.6	4			4	2.2	Mauritania
Mozambique	-8.6	4			38.9	3			3.0	46.2	3			3	3.3	Mozambique
Niger	-6.0	3	-0.6	1	-4.3	1	14.0	3	1.7			29.1	2	2	2.2	Niger
Nigeria	-6.2	3	2.8	3	10.2	2	-7.3	3	2.7	25.1	2			2	2.6	Nigeria
Rwanda	-6.9	3	0.5	1	11.9	2	-5.7	2	1.7	47.5	3			3	2.6	Rwanda
Senegal	-0.4	1	-0.9	1	-0.7	1	8.0	3	1.7			-2.5	4	4	2.2	Senegal
Sierra Leone	-7.3	4	6.8	4	106.8	4	-35.1	4	4.0	104.4	4			4	4.0	Sierra Leone
Tanzania	-0.7	1			21.0	2			2.0	74.5	4			4	2.3	Tanzania
Togo	-3.3	2	1.8	3	0.7	1	6.1	2	2.0			10.1	3	3	2.3	Togo
Uganda b\	-0.9	1			30.6	3	-5.7	2	2.5	24.6	2			2	1.8	Uganda b\
Zambia	-8.4	4	3.8	4	105.6	4	-44.0	4	4.0	149.6	4			4	4.0	Zambia
Zimbabwe	-8.5	4	2.7	3	20.4	2			2.6	23.5	2			2	2.8	Zimbabwe

Source: Authors' calculations.
Note: Fiscal policy stance: A fiscal deficit greater than -1.5 percent was given a score of 1; from -1.5 to -3.5, a score of 2; from -3.5 to -7, a score of 3; less than -7, a score of 4.
Monetary policy stance: Seignoirage less than 0.5 was given a score of 1; 0.5 to 1.5, a score of 2; 1.5 to 3, a score of 3; greater than 3, a score of 4. Inflation less than 10 was given a score of 1; 10 to 25, a score of 2; 25 to 50, a score of 3; greater than 50, a score of 4. A real interest rate between 3 and -3 was given a score of 1, 3 to 7 or -3 to -7, a score of 2; greater than 7 or -7 to -15, a score of 3; less than -15, a score of 4.
The overall monetary policy score is a simple average of the seignoirage, inflation and real interest rate score.
Exchange rate policy stance: A premium of less than 10 was given a score of 1; 10 to 30, a score of 2; 20 to 50, a score of 3; greater than 50, a score of 4. A REER of greater than 40 was given a score of 1; 20 to 40, a score of 2; 6 to 20, a score of 3; less than 5, a score of 4.
The overall macroeconomic policy score is the average of the fiscal monetary and exchange rate policy scores.
\a Ghana - Narrow deficit definition.

Table A8. Components of Macroeconomic Policy Stance, 1991-92
(Updated and revised data)

Country	Fiscal policy: Overall fiscal balance including grants (% of GDP)	Fiscal policy: Fiscal policy score	Monetary Policy: Seigniorage Percent	Seigniorage Score	Inflation Percent	Inflation Score	Real interest rate Percent	Real interest rate Score	Monetary policy score	Exchange rate policy: Parallel market exchange rate premium (percent)		Change in the real effective exchange rate since 1980 (percent)		Exchange rate policy score	Overall macroeconomic policy score	
Benin	-5.1	3	1.4	2	6.0	1	-2.7	1	1.3			12.4	3	3	2.4	Benin
Burkina Faso	-2.7	2	0.1	1	0.3	1	8.1	3	1.7			14.9	3	3	2.2	Burkina Faso
Burundi	-5.1	3			6.8	1			1.0	45.2	3			3	2.3	Burundi
Cameroon	-7.2	4	-1.1	1	0.1	1	9.5	3	1.7			-31.4	4	4	3.2	Cameroon
Central African Republic	-10.1	4	-0.3	1	-1.9	1	9.7	3	1.7			17.0	3	3	2.9	Central African Republic
Congo	-13.9	4	0.7	2	5.6	1	5.5	2	1.7			-10.0	4	4	3.2	Congo
Cote d'Ivoire	-13.6	4	-0.5	1	2.6	1	4.1	2	1.3			-2.4	4	4	3.1	Cote d'Ivoire
Gabon	-3.7	3	-0.7	1	-4.6	1	20.3	3	1.7			18.4	3	3	2.6	Gabon
Gambia, The	2.9	1	1.9	3	9.0	1	4.9	2	2.0	-4.2	1			1	1.3	Gambia, The
Ghana a\	-6.0	3	2.3	3	14.0	2	8.0	3	2.7	5.5	1			1	2.2	Ghana a\
Kenya	-4.6	3	3.5	4	24.7	2			3.0	57.9	4			4	3.3	Kenya
Madagascar	-6.0	3	3.3	4	11.6	2			3.0	19.1	2			2	2.7	Madagascar
Malawi	-8.3	4	2.0	3	17.7	2	-6.7	2	2.3	39.1	3			3	3.1	Malawi
Mali	-5.8	3	0.4	1	4.1	1	3.2	2	1.3			11.9	3	3	2.4	Mali
Mauritania	0.8	1	1.1	2	9.7	1	-4.4	2	1.7	149.0	4			4	2.2	Mauritania
Mozambique	-5.4	3			40.1	3			3.0	1.7	1			1	2.3	Mozambique
Niger	-5.0	3	-0.5	1	-6.1	1	12.4	3	1.7			36.6	2	2	2.2	Niger
Nigeria	-8.8	4	5.0	4	28.8	3	-22.7	4	3.7	34.6	3			3	3.6	Nigeria
Rwanda	-7.8	4	1.4	2	14.6	2	-2.4	1	1.7	82.6	4			4	3.2	Rwanda
Senegal	1.1	1	0.1	1	-0.9	1	7.8	3	1.7			-0.9	4	4	2.2	Senegal
Sierra Leone	-4.4	3	4.5	4	84.1	4	-23.1	4	4.0	66.9	4			4	3.7	Sierra Leone
Tanzania	0.6	1			22.2	2			2.0	45.2	3			3	2.0	Tanzania
Togo	-3.8	3	0.9	2	0.9	1	7.2	3	2.0			10.9	3	3	2.7	Togo
Uganda b\	-3.5	2			40.3	3	7.1	3	3.0	13.2	2			2	2.3	Uganda b\
Zambia	-4.3	3	4.0	4	142.5	4	-50.6	4	4.0	43.3	3			3	3.3	Zambia
Zimbabwe	-7.7	4	1.5	3	32.7	3			3.0	31.1	3			3	3.3	Zimbabwe

Source: Authors' calculations.

Note: Fiscal policy stance: A fiscal deficit greater than -1.5 percent was given a score of 1; from -1.5 to -3.5, a score of 2; from -3.5 to -7, a score of 3; less than -7, a score of 4.
Monetary policy stance: Seignoirage less than 0.5 was given a score of 1; 0.5 to 1.5, a score of 2; 1.5 to 3, a score of 3; greater than 3, a score of 4. Inflation less than 10 was given a score of 1; 10 to 25, a score of 2; 25 to 50, a score of 3; greater than 50, a score of 4. A real interest rate between 3 and -3 was given a score of 1, 3 to 7 or -3 to -7, a score of 2; greater than 7 or -7 to -15, a score of 3; less than -15, a score of 4.
The overall monetary policy score is a simple average of the seignoirage, inflation and real interest rate score.
Exchange rate policy stance: A premium of less than 10 was given a score of 1; 10 to 30, a score of 2; 20 to 50, a score of 3; greater than 50, a score of 4. A REER of greater than 40 was given a score of 1; 20 to 40, a score of 2; 5 to 20, a score of 3; less than 5, a score of 4.
The overall macroeconomic policy score is the average of the fiscal monetary and exchange rate policy scores.
\a Ghana - Narrow deficit definition.

Table B1. Total Revenue
(In percent of GDP)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin	13.8	17.8	18.6	14.8	11.9	12.9	13.1	12.9	12.7	9.4	9.9	11.5	12.2
Burkina Faso	13.5	12.6	14.0	12.8	13.3	13.5	11.4	13.0	11.7	11.5	13.2	14.0	12.5
Burundi	13.4	13.1	15.0	12.6	13.6	13.2	16.0	13.6	15.0	18.2	15.3	16.9	16.7
Cameroon	16.9	24.9	24.7	27.1	23.2	18.8	22.7	19.0	17.8	16.8	14.5	16.1	17.2
Central African Republic	12.9	13.2	14.5	14.6	14.2	13.2	11.7	11.8	12.4	12.0	12.3	10.2	9.6
Congo	29.1	38.8	35.2	33.6	34.3	33.7	34.8	20.5	19.4	22.2	27.1	26.5	24.5
Cote d'Ivoire	28.3	27.8	26.7	29.2	34.1	36.6	28.9	25.5	25.7	22.8	23.4	21.9	22.3
Gabon	29.2	33.1	34.5	31.4	32.3	32.4	35.2	20.6	21.2	18.8	21.4	24.2	22.6
The Gambia	22.2	18.3	18.0	17.4	20.7	19.0	19.3	21.4	20.4	23.2	21.7	19.8	22.5
Ghana	6.9	4.6	5.5	5.5	8.0	11.3	13.7	14.1	13.5	13.6	11.8	13.8	11.1
Kenya	24.5	25.3	24.6	23.1	22.2	22.1	22.6	22.6	23.1	23.1	23.0	23.3	23.7
Madagascar	14.7	12.4	12.2	11.9	13.8	12.9	12.0	14.6	13.1	14.2	14.9	10.1	12.4
Malawi	19.1	19.2	18.6	19.2	19.6	22.1	21.2	19.8	20.7	21.8	19.5	18.8	19.8
Mali	12.5	11.5	12.3	12.9	13.3	14.9	17.9	15.1	14.5	16.8	17.1	15.9	13.3
Mauritania	17.2	19.1	19.3	21.6	23.2	24.6	24.8	25.6	24.9	23.1	24.6	22.7	21.2
Mozambique	19.3	23.2	29.9	29.8	20.7	13.1	13.2	16.1	19.9	23.5	22.4	23.5	25.9
Niger	13.8	12.6	11.3	11.2	10.9	11.1	11.0	11.3	10.5	10.3	10.3	8.4	8.2
Nigeria	24.9	15.1	13.2	11.5	10.3	11.2	17.3	15.9	12.7	16.0	20.2	19.2	NA
Rwanda	12.4	12.2	11.7	10.9	11.2	12.2	13.8	13.4	12.8	12.7	11.3	11.9	12.7
Senegal	22.7	19.3	17.0	18.0	19.3	18.8	17.8	18.7	17.5	16.6	17.2	19.2	18.9
Sierra Leone	14.8	16.3	12.0	8.4	7.6	6.3	5.5	7.2	8.0	9.2	9.5	12.3	12.0
Tanzania	19.7	20.1	18.2	18.7	19.8	18.9	14.8	16.3	16.9	19.5	21.0	22.5	23.5
Togo	29.0	25.8	28.5	27.5	29.1	29.0	28.5	23.7	23.4	22.7	22.5	17.1	NA
Uganda	2.8	1.9	8.1	11.1	14.3	12.0	7.0	4.9	6.6	5.4	7.0	7.6	7.0
Zambia	25.0	23.3	23.4	24.3	22.2	21.9	23.4	19.8	16.7	17.5	18.6	17.4	16.2
Zimbabwe	21.6	24.1	27.8	31.7	30.3	31.8	33.8	33.5	36.3	36.1	35.1	34.4	37.2

Source: World Bank and IMF staff estimates

Table B2. Overall Fiscal Balance, excluding grants
(In percent of GDP)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin	-11.4	-8.2	-14.0	-17.3	-19.0	-13.0	-10.7	-11.0	-9.6	-10.6	-10.0	-7.2	-7.9
Burkina Faso	-21.2	-20.1	-20.0	-23.3	-17.2	-7.2	-10.6	-11.0	-9.4	-7.7	-7.6	-7.1	-6.1
Burundi	-10.6	-12.3	-12.6	-18.1	-12.1	-10.2	-8.5	-16.7	-11.7	-9.6	-13.6	-12.8	-14.1
Cameroon	0.4	3.2	0.0	3.5	-0.1	-3.3	-0.4	-13.0	-6.4	-5.1	-8.6	-8.0	-6.3
Central African Republic	-5.2	-5.7	-1.4	-2.3	-8.1	-13.8	-13.8	-16.4	-13.7	-11.3	-13.1	-18.2	-15.7
Congo	-11.4	0.2	-14.0	-12.6	-6.2	-4.8	-8.2	-12.0	-17.6	-10.1	-6.7	-14.4	-19.8
Cote d'Ivoire	-11.8	-10.5	-13.5	-11.7	-1.6	2.0	-3.0	-8.2	-14.6	-17.8	-13.1	-14.3	-12.9
Gabon	4.6	7.8	8.7	-1.4	-2.0	-4.5	-7.1	-10.8	-11.6	-8.0	-7.2	-2.8	-5.2
The Gambia	-9.5	-17.9	-18.3	-12.1	-13.4	-14.5	-6.9	-15.2	-16.7	-2.8	-8.2	-4.2	-4.4
Ghana	-4.2	-6.5	-5.7	-2.7	-3.1	-4.1	-5.5	-5.1	-5.3	-5.3	-4.8	-4.0	-10.7
Kenya	-7.7	-9.6	-8.8	-5.1	-5.4	-7.6	-7.1	-7.6	-5.0	-7.1	-6.6	-7.7	-4.7
Madagascar	-14.9	-12.0	-7.4	-6.0	-4.1	-4.3	-4.2	-4.1	-4.0	-5.5	-2.0	-6.4	-7.7
Malawi	-15.1	-16.5	-10.9	-9.5	-8.4	-10.1	-13.0	-9.4	-7.2	-6.8	-6.2	-5.6	-15.7
Mali	-10.8	-15.5	-9.8	-13.7	-10.0	-15.3	-12.5	-11.2	-10.8	-10.3	-8.3	-11.9	-11.4
Mauritania	-11.6	-10.0	-11.6	-6.3	-4.1	-0.3	1.1	-0.1	-1.2	-6.3	-2.8	-2.2	-0.4
Mozambique	-10.9	-15.2	-9.4	-19.3	-20.7	-14.7	-18.0	-21.1	-24.8	-24.1	-29.5	-26.8	-32.1
Niger	0.5	-6.3	-6.3	-8.5	-8.2	-8.5	-9.4	-8.8	-9.2	-10.6	-12.4	-8.5	-8.6
Nigeria	-0.4	-8.8	-7.4	-9.5	-4.1	-2.4	-2.8	-9.0	-10.9	-5.4	-3.5	-8.8	NA
Rwanda	-4.6	-7.5	-7.6	-8.3	-5.9	-6.4	-7.1	-10.3	-8.9	-8.3	-11.5	-13.1	-17.6
Senegal	-5.7	-12.6	-6.9	-8.1	-5.9	-4.7	-3.9	-2.7	-2.6	-4.2	-4.1	0.4	-1.0
Sierra Leone	-14.1	-15.0	-14.8	-13.4	-9.7	-12.6	-13.6	-18.1	-8.0	-8.0	-12.0	-10.2	-8.9
Tanzania	-18.1	-13.2	-16.3	-10.4	-9.7	-8.2	-8.3	-8.3	-7.8	-6.0	-7.0	-2.7	-2.9
Togo	0.2	-7.4	-3.6	-7.9	-7.0	-7.1	-9.1	-9.4	-5.3	-6.2	-6.1	-5.2	NA
Uganda	-3.1	-7.9	-9.7	-4.1	-3.5	-5.7	-5.2	-4.5	-6.4	-4.7	-5.5	-7.3	-15.0
Zambia	-19.4	-13.7	-15.3	-9.6	-7.8	-14.9	-29.9	-13.1	-13.7	-12.0	-14.3	-14.9	-11.2
Zimbabwe	-13.8	-12.2	-7.8	-8.9	-10.5	-10.6	-10.5	-12.7	-9.4	-10.8	-10.4	-9.6	-8.5

Source: World Bank and IMF staff estimates

Table B3. Overall Fiscal Balance, including grants

(In percent of GDP)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin	-6.2	-1.0	-8.2	-11.9	-13.6	-8.5	-7.9	-7.4	-5.0	-8.2	-7.7	-4.8	-5.4
Burkina Faso	-10.3	-11.4	-12.1	-15.5	-10.0	-1.3	-3.8	-4.2	-3.7	1.5	-5.3	-3.2	-2.2
Burundi	-7.0	-7.3	-8.7	-14.5	-9.0	-6.7	-4.9	-12.8	-9.3	-2.7	-5.5	-4.7	-5.6
Cameroon	0.4	3.2	0.0	3.5	-0.1	-3.3	-0.4	-13.0	-6.4	-5.1	-8.6	-8.0	-6.3
Central African Republic	-1.3	-3.1	0.6	-0.9	-7.0	-8.6	-6.9	-9.3	-3.8	-3.1	-7.3	-11.8	-8.4
Congo	-10.5	0.3	-13.8	-12.2	-5.3	-4.5	-8.2	-11.9	-17.5	-10.0	-6.4	-13.9	-19.8
Cote d'Ivoire	-11.8	-10.5	-13.5	-11.7	-1.6	2.0	-3.0	-8.2	-14.6	-17.8	-13.1	-14.3	-12.9
Gabon	5.0	8.1	9.1	-1.1	-1.6	-4.2	-6.6	-10.3	-11.1	-7.5	-6.7	-2.3	-5.1
The Gambia	-3.7	-4.1	-14.6	-7.1	-8.0	-5.7	11.3	-0.7	-7.5	7.4	-0.1	5.5	0.2
Ghana	-4.1	-6.4	-5.6	-2.7	-2.8	-3.6	-4.7	-4.3	-4.2	-3.8	-3.3	-2.5	-9.6
Kenya	-7.7	-9.6	-8.8	-5.1	-5.4	-7.6	-7.1	-6.6	-2.9	-4.9	-3.9	-5.9	-3.2
Madagascar	-14.9	-12.0	-7.0	-5.3	-3.2	-3.8	-3.4	-3.3	-3.1	-3.7	-0.2	-5.5	-6.6
Malawi	-10.8	-12.7	-7.6	-7.2	-6.0	-7.8	-9.4	-6.6	-1.3	-2.0	-1.8	-3.5	-13.1
Mali	-4.2	-9.6	-6.8	-8.1	-4.6	-9.6	-7.6	-5.7	-4.9	-4.6	-3.0	-7.3	-4.2
Mauritania	-7.3	-6.1	-10.8	-5.8	-4.1	-0.3	1.1	1.7	-1.2	-3.8	-0.9	-0.6	2.2
Mozambique	-8.3	-12.8	-6.8	-16.1	-17.9	-12.7	-15.7	-11.7	-11.0	-7.5	-13.1	-4.1	-6.6
Niger	5.0	-2.5	-2.5	-6.9	-4.8	-4.9	-4.3	-3.4	-4.6	-6.2	-7.0	-5.0	-8.6
Nigeria	-0.4	-8.8	-7.4	-9.5	-4.1	-2.4	-2.8	-9.0	-10.9	-5.4	-3.5	-8.8	NA
Rwanda	-4.6	-3.8	-4.0	-4.7	-1.8	-3.6	-4.5	-8.3	-5.7	-5.3	-7.9	-5.8	-9.9
Senegal	-4.9	-11.6	-5.8	-7.6	-4.7	-3.7	-2.4	-1.6	-1.3	-2.3	-2.9	2.0	0.2
Sierra Leone	-14.1	-15.0	-14.8	-13.4	-9.7	-10.6	-8.4	-16.1	-6.6	-6.1	-8.6	-6.0	-2.7
Tanzania	-13.7	-9.8	-13.6	-8.6	-9.7	-8.2	-1.2	-1.1	-1.4	0.8	-2.8	1.3	-0.1
Togo	1.9	-5.8	-1.7	-4.8	-2.2	-2.4	-4.7	-7.3	-3.4	-4.3	-2.9	-3.8	NA
Uganda	-2.7	-6.4	-9.5	-3.6	-3.1	-4.5	-4.8	-2.8	-4.8	-3.2	-1.6	-0.1	-6.9
Zambia	-18.6	-13.1	-14.5	-8.3	-7.3	-14.4	-28.6	-12.6	-12.2	-10.0	-10.4	-6.4	-2.2
Zimbabwe	-12.01	-11.43	-6.79	-7.41	-7.59	-9.13	-9.02	-11.73	-8.14	-9.03	-8.75	-8.20	-7.10

Source: World Bank and IMF staff estimates

Table B4. Seignoirage
(Percent of GDP)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin	3.0	3.9	4.7	-1.3	1.2	-1.2	-2.5	-3.9	2.0	2.4	3.7	1.7	1.1
Burkina Faso	1.6	1.4	0.9	0.7	0.6	0.2	2.1	0.2	1.0	0.1	-0.7	0.4	-0.2
Burundi	-0.0	2.3	-2.2	2.3	0.3	2.1	0.4	-0.8	-0.0	-0.2	0.6		
Cameroon	0.1	1.3	0.7	2.0	0.3	-0.2	0.3	-1.7	1.3	1.5	-0.3	1.0	-3.2
Central African Rep.	5.0	4.4	-0.8	1.3	0.7	0.9	-0.3	0.2	-1.3	1.8	-0.7	-0.4	-0.1
Chad	-2.5	3.3	0.1	1.9	7.1	-0.4	-1.4	-1.3	-3.6	0.5	-1.2	0.1	-2.2
Congo	2.2	2.0	1.4	-2.1	0.5	0.9	-2.3	0.8	-0.7	-0.2	3.2	-1.0	2.3
Cote d'Ivoire	-0.4	1.0	-0.1	1.0	2.9	1.4	0.4	-1.3	-0.6	-2.0	0.8	-0.5	-0.6
Gabon	1.3	1.8	0.6	1.1	1.5	0.7	-1.7	-1.9	2.7	0.5	0.1	0.4	-1.7
Gambia, The	0.1	2.7	1.6	1.5	-0.6	5.6	-0.1	1.5	0.4	1.6	0.9	2.9	1.0
Ghana	3.4	4.9	2.2	3.0	3.6	3.0	2.8	3.4	3.2	4.1	0.6	0.8	3.8
Guinea													
Guinea-Bissau								8.4	7.7	2.8	4.5	2.3	4.6
Kenya	-2.2	1.0	1.3	0.7	1.4	-0.7	3.3	0.3	-0.5	0.9	2.6	1.5	5.5
Madagascar	3.3	4.4	1.4	-0.8	2.7	-0.2	2.1	2.7	2.1	3.5	-0.6	3.6	3.0
Malawi	0.4	1.5	1.1	-0.4	1.3	0.4	2.2	2.7	3.7	-0.1	0.4	2.3	1.7
Mali	0.4	-0.1	2.0	3.0	4.9	0.6	-0.0	-2.4	-0.1	-1.0	-2.2	0.7	-0.0
Mauritania	1.5	4.9	-1.5	2.1	3.1	4.4	-1.6	2.3	0.4	3.3	0.4	1.6	0.6
Mozambique	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Niger	0.8	1.5	-0.3	-0.4	2.1	0.6	0.5	-1.7	1.1	0.7	-1.6	0.4	-1.4
Nigeria	6.2	1.3	1.2	2.6	1.5	1.4	-1.3	1.4	4.0	1.7	2.1	3.5	6.5
Rwanda	-0.1	-0.9	-0.6	0.3	0.5	0.6	1.5	0.1	0.2	-1.2	0.4	0.6	2.1
Senegal	2.0	2.8	2.7	-0.6	-0.5	-0.2	2.2	-1.5	-0.5	0.6	-2.1	0.3	-0.1
Sierra Leone	1.6	-0.4	6.0	5.5	4.8	8.7	12.6	5.2	5.7	8.7	6.5	7.0	2.0
Tanzania	6.6	4.0	4.7	3.0	-0.4	3.4	5.6	4.1	4.3	NA	NA	NA	
Togo	0.5	9.6	3.2	-2.4	2.2	-2.8	1.0	-0.5	-7.0	-0.6	2.7	0.9	
Uganda	NA	NA	0.7	2.3	5.5	4.8	6.1	NA	NA	NA	NA	NA	
Zambia	-0.1	1.2	3.4	2.5	1.6	5.1	8.0	4.4	6.5	4.4	3.6	4.0	
Zimbabwe	4.0	0.1	2.1	-1.7	1.7	1.8	1.0	1.1	2.8	1.9	2.9	2.4	0.6

Source: Authors' calculations based on IMF, IFS data.

Table B5. Rates of Inflation
(Percent change in CPI)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin \1	8.2	15.5	4.5	1.7	-4.9	-4.2	3.6	-0.6	1.4	1.8	1.6	10.3
Burkina Faso	7.6	12.1	8.3	4.8	6.9	-2.6	-2.7	4.1	-0.3	-0.8	2.5	-2.0
Burundi	12.2	5.9	8.2	14.3	3.8	1.7	7.1	4.5	11.7	7.0	9.0	4.5
Cameroon \1	11.8	13.3	12.2	11.0	9.0	0.5	-5.3	-3.8	-1.5	6.1	1.5	-1.4
Central African Republic		13.3	14.6	2.5	10.4	2.2	-7.0	-4.0	0.7	-0.0	-2.8	-1.0
Chad \1	8.0	9.2	-0.5	22.9	-4.2	-16.4	-2.8	8.7	-1.5	1.9	3.7	-5.5
Congo	17.0	12.8	7.7	13.2	5.6	2.4	1.6	4.8	3.7	-4.8	9.1	2.2
Cote d'Ivoire	8.8	7.3	5.9	4.3	1.8	6.8	6.9	7.0	1.0	-0.8	1.7	3.5
Gabon	8.7	16.4	10.7	5.9	-12.9	31.0	-0.9	-8.8	6.7	7.7	0.3	-9.6
Gambia, The	5.9	10.9	10.6	22.1	18.3	56.6	23.5	11.7	8.3	12.2	8.6	9.5
Ghana	116.5	22.3	122.9	39.7	10.3	24.6	39.8	31.4	25.2	37.3	18.0	10.1
Guinea	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Guinea-Bissau \1	6.2	16.3	23.1	64.5	44.8	88.0	81.4	79.2	62.9	68.5	71.4	73.7
Kenya	11.6	20.7	11.4	10.3	13.0	4.8	7.6	11.2	12.9	15.6	19.8	29.5
Madagascar	30.5	31.8	19.3	9.9	10.6	14.5	15.0	26.9	9.0	11.8	8.6	14.5
Malawi	11.8	9.8	13.5	20.0	10.5	14.0	25.2	33.9	12.5	11.8	12.6	22.7
Mali \1	7.9	4.6	8.1	10.0	17.8	-8.0	-0.3	1.9	-0.9	3.0	4.0	4.1
Mauritania \1	6.9	9.8	6.1	13.5	10.3	7.2	10.1	5.3	8.6	3.0	9.6	9.9
Mozambique \1	2.9	16.8	15.4	12.3	43.2	12.7	141.2	46.7	40.0	38.0	39.7	40.5
Niger	22.9	11.6	-2.5	8.4	-0.9	-3.2	-6.7	-1.4	-2.8	-0.8	-7.8	-4.5
Nigeria	20.8	7.7	23.2	39.6	7.4	5.7	11.3	54.5	50.5	7.4	13.0	44.6
Rwanda	6.5	12.6	6.6	5.4	1.8	-1.1	4.1	3.0	1.0	4.2	19.6	9.6
Senegal	5.9	17.4	11.6	11.8	13.0	6.2	-4.1	-1.8	0.4	0.3	-1.8	-0.1
Sierra Leone	23.4	26.9	68.5	66.6	76.6	80.9	181.6	31.3	62.8	111.0	102.7	65.5
Tanzania	25.7	28.9	27.1	36.1	33.3	32.4	30.0	31.2	25.8	19.7	22.3	22.1
Togo	19.7	11.1	9.4	-3.5	-1.8	4.1	0.1	-0.2	-0.8	1.0	0.4	1.4
Uganda	108.7	49.3	24.1	42.7	157.7	161.0	200.0	196.1	61.4	33.1	28.1	52.4
Zambia	13.0	13.6	19.6	20.0	37.3	51.8	43.0	55.6	127.9	117.5	93.7	191.3
Zimbabwe	13.2	10.6	23.1	20.2	8.5	14.3	12.5	7.4	12.9	17.4	23.3	42.1

Source: World Bank and IMF data.
\1 GDP deflators used instead of CPI.

Table B6. Real Interest Rates
(Percent)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin \1	-8.0	3.1	5.7	12.7	11.9	2.4	5.9	3.8	4.6	5.3	-3.0	-2.3
Burkina Faso	-5.2	-0.5	2.5	0.3	10.1	9.0	1.1	5.6	7.3	4.4	9.2	7.1
Burundi	-1.3	-2.9	-8.6	0.7	2.8	-1.1	0.8	-6.9	NA	NA	NA	NA
Cameroon \1	-5.1	-4.2	-3.2	-1.3	7.0	13.4	11.4	8.8	1.4	6.4	9.5	9.5
Central African Republic	-5.1	-6.2	4.8	-2.6	5.1	15.4	11.6	6.7	7.5	10.6	8.6	10.7
Chad \1	-3.4	6.1	-14.1	10.1	26.1	8.5	-3.1	6.0	2.3	0.5	13.8	13.8
Congo \1	-5.6	-1.1	-5.0	1.8	5.8	6.4	2.6	3.9	13.4	-1.3	5.5	5.5
Cote d'Ivoire	-1.0	1.8	3.1	5.3	0.4	-0.8	-1.6	4.2	7.3	5.2	3.4	4.8
Gabon \1	-7.6	-2.9	1.6	23.4	-17.8	9.0	18.3	1.3	1.0	8.4	20.3	20.3
Gambia, The	-2.1	-1.9	-11.1	-7.9	-29.9	-6.0	3.6	6.2	0.6	2.5	2.9	6.9
Ghana \1	-8.8	-50.0	-20.2	4.3	-7.1	-16.3	-10.5	-7.0	NA		10.2	5.7
Kenya	-9.8	0.7	2.7	-1.1	6.2	3.4	-0.8	-2.3	-3.1	-5.1		NA
Madagascar	-18.5	-8.9	1.2	2.1	-1.9	-3.0	-12.1	2.3	NA	NA	NA	NA
Malawi \1	-0.1	-3.3	-8.4	1.1	-1.4	-9.9	-14.7	0.9	0.8	-0.5	-8.3	-5.1
Mali \1	1.6	-0.3	-2.2	-9.0	16.6	6.4	3.3	6.2	3.3	2.8	2.8	3.5
Mauritania \1	-3.9	-0.5	-7.1	-4.4	-0.1	-3.2	0.7	-2.4	2.0	-4.2	-4.4	-4.4
Mozambique	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Niger \1	-4.8	10.5	-0.8	8.2	10.8	13.7	6.7	8.3	7.3	16.0	12.0	12.8
Nigeria	-1.8	-12.7	-23.0	0.8	3.2	-1.8	-26.8	-24.9	6.8	6.0	-20.5	-24.9
Rwanda	-5.6	-0.3	0.8	4.4	7.6	2.0	3.2	5.2	2.0	-10.7	-0.7	-4.1
Senegal	-9.5	-3.5	-3.8	-5.1	1.0	10.7	7.2	4.8	6.1	8.9	7.1	8.4
Sierra Leone \1	-13.3	-34.7	-33.4	-36.6	-38.4	-59.5	-14.2	-28.5	-43.1	-30.7	-39.6	-6.5
Tanzania \1	-19.3	-18.1	-23.6	-22.0	-21.1	-16.5	-11.8	-6.7	-2.3	NA	NA	NA
Togo	-4.4	-1.5	11.4	9.2	3.0	6.0	5.4	6.1	5.3	6.6	5.5	8.8
Uganda	-28.2	-12.1	-22.5	-55.0	-54.0	-58.9	-59.5	-24.7	-0.7	2.5	-14.0	28.1
Zambia	-6.5	-11.4	-10.8	-21.5	-24.0	-17.7	-27.2	-51.1	-48.8	-35.1		-48.3
Zimbabwe	-2.9	-7.0	-6.1	1.7	-3.8	-1.9	2.0	-2.8	-7.3	-11.8	NA	NA

Source: IMF, IFS data.
Note: Real interest rate is calculated as the deposit interest rate less the expected inflation rate divided by (1 + the expected inflation rate).
The inflation rate in the following period was used as a proxy for the expected rate of inflation.
\1 Inflation rate of 1992 was used since 1993 inflation rates were not available.

Table B7. Real Effective Exchange Rates
(Index, 1980=100)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Benin	107.6	115.8	125.0	137.3	145.5	125.0	105.0	116.0	114.3	111.1	114.0	110.0
Burkina Faso	114.9	118.2	120.4	120.3	114.3	103.8	97.7	101.5	103.5	98.4	98.4	98.0
Burundi	83.1	75.5	69.9	75.3	73.9	85.9	100.4	114.0	112.6	129.8	129.3	153.5
Cameroon	109.8	112.4	111.0	113.8	115.5	107.2	79.6	79.3	84.9	80.4	84.1	80.3
Central African Republic	105.6	107.8	107.0	112.1	104.0	94.1	96.9	107.1	110.9	107.3	115.7	112.6
Chad	111.3	118.1	120.6	117.7	114.6	110.6	99.8	96.1	104.4	99.2	99.2	103.8
Congo	99.4	101.0	103.2	95.5	93.7	91.7	91.4	90.6	91.1	90.4	89.7	91.1
Cote d'Ivoire	119.2	132.0	139.0	140.3	138.3	111.9	96.3	95.6	99.4	96.0	99.4	93.9
Gabon	111.3	110.0	113.1	117.6	114.0	103.6	104.3	121.3	118.8	106.5	112.2	124.9
Gambia	104.6	104.0	103.4	111.3	101.8	141.6	134.1	123.9	128.8	137.3	145.1	139.3
Ghana	44.9	35.9	53.4	138.5	190.4	331.7	430.4	451.2	479.6	480.2	463.1	518.4
Guinea	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Guinea-Bissau	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kenya	103.6	99.7	105.3	98.3	99.7	114.0	123.2	129.6	131.7	143.0	146.1	139.3
Madagascar	94.5	89.5	88.8	103.6	109.2	115.6	169.6	194.7	204.0	193.0	221.2	208.0
Malawi	99.9	104.2	102.3	103.4	103.3	115.0	123.7	116.7	110.1	109.7	105.0	113.3
Mali	111.7	125.7	130.9	134.6	127.6	119.3	113.1	115.8	117.1	108.8	109.5	105.0
Mauritania	86.3	79.5	80.5	85.3	91.2	100.3	106.0	114.7	116.2	120.7	118.6	117.6
Mozambique	102.5	88.8	73.6	55.4	40.2	32.7	83.8	130.5	126.4	127.0	165.0	182.0
Niger	98.2	101.7	120.7	129.1	133.4	115.6	106.2	118.4	126.2	122.7	137.0	137.7
Nigeria	90.2	87.9	74.4	54.0	59.3	108.0	335.4	290.8	325.9	352.2	417.8	504.2
Rwanda	89.7	76.4	70.7	68.9	68.5	75.1	75.3	74.5	76.1	83.4	109.9	114.7
Senegal	114.6	112.8	115.2	116.2	105.4	87.6	84.5	93.2	98.1	93.9	99.4	96.9
Sierra Leone	86.7	70.0	57.5	46.4	52.4	71.3	92.1	77.9	89.5	122.8	122.4	133.9
Tanzania	77.1	65.1	58.3	56.6	48.8	70.5	143.2	182.7	208.7	271.9	254.0	298.5
Togo	105.2	110.7	111.5	120.1	123.3	106.4	99.9	106.8	112.8	108.2	113.1	107.9
Uganda	141.3	407.2	518.1	767.1	587.5	558.1	435.3	481.7	568.7	931.1	1214.9	1332.6
Zambia	97.8	87.8	94.7	110.1	119.1	247.3	234.3	150.9	116.1	135.0	152.4	142.7
Zimbabwe	97.0	86.2	96.9	96.9	109.0	118.4	124.1	133.8	140.9	161.1	192.7	214.6

Source: World Bank and IMF staff estimates.
An increase in the index represents a depreciation of the REER.

Table B8. Black Market Premium
(Percent deviation from the official exchange rate)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Benin														
Burkina Faso														
Burundi	17.8	15.6	33.3	10.7	40.9	25.0	19.0	11.6	25.4	16.9	5.8	36.1	54.3	41.2
Cameroon														
Central African Republic														
Chad														
Congo														
Cote d'Ivoire														
Gabon														
Gambia, The	1.1	3.7	-8.3	3.6	10.1	7.0	12.2	29.4	36.5	-14.1	2.6	-7.0	-1.4	2.5
Ghana	304.0	1718.2	4263.7	223.3	100.0	141.7	142.2	28.9	34.9	17.2	7.3	-0.4	11.4	1.4
Guinea	122.2	253.6	436.2	642.2	1091.2	1435.1	78.2	11.4	6.4	-5.6	12.5	2.7	8.4	21.5
Guinea-Bissau					48.2	97.1	33.9	17.5	32.1	-4.4	-2.3	11.3	-28.9	4.7
Kenya	9.7	21.5	29.7	17.4	17.4	-2.0	6.6	21.1	12.9	4.2	5.9	8.6	107.1	32.0
Madagascar	17.4	33.6	90.4	79.6	33.7	8.8	5.9	29.6	16.3	3.1	7.1	31.0	7.3	9.5
Malawi	95.3	107.9	49.4	60.4	52.1	29.5	22.0	13.2	27.2	33.3	14.5	44.4	33.8	32.4
Mali														
Mauritania	41.2	10.3	13.3	157.8	130.3	116.7	136.2	172.3	164.1	199.2	169.8	163.4	134.6	81.2
Mozambique	118.7	87.8	134.5	248.0	2880.8	3705.7	4337.5	116.1	43.0	16.8	94.0	-1.6	5.0	-4.6
Niger														
Nigeria	71.7	46.7	84.2	456.6	341.9	270.5	131.9	20.7	86.8	18.8	23.4	26.8	42.5	128.5
Rwanda	23.9	20.6	46.5	49.2	68.6	47.9	29.5	22.9	30.4	35.3	28.0	67.0	98.3	102.9
Senegal														
Sierra Leone	34.9	46.8	50.2	37.4	73.2	47.7	40.5	117.0	1405.9	512.0	165.0	43.7	90.0	16.9
Tanzania	223.9	192.6	204.7	301.4	286.6	259.4	248.0	138.9	100.0	35.2	78.0	71.0	19.4	1.7
Togo														
Uganda	917.4	246.4	155.2	50.0	9.6	25.0	650.0	366.7	260.6	67.0	39.8	9.3	17.1	33.6
Zambia	70.5	38.1	45.4	27.3	97.6	35.0	31.1	78.6	899.6	413.2	211.9	87.3	-0.7	33.3
Zimbabwe	84.4	53.2	51.1	191.8	79.9	41.7	70.3	50.3	47.1	76.2	14.9	32.0	30.3	22.2

Source: IMF, IFS data and International Currency Yearbook
Note: End of period data. Premium = (Black market rate minus the official rate)/ Official rate.

Table B9. Real GDP per Capita Growth
(percent change)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Benin	6.0	-0.3	-7.1	5.0	4.2	-1.1	-4.8	0.6	-5.5	0.2	1.7	0.8	0.4
Burkina Faso	1.5	8.3	-1.4	-4.1	5.7	3.1	-1.6	3.1	0.4	-3.0	3.3	-2.2	-2.5
Burundi	9.2	-3.8	0.8	-2.5	8.5	0.2	2.6	1.8	-1.3	0.6	2.2	-0.2	-3.8
Cameroon	9.7	-0.2	4.9	3.1	4.9	5.1	-5.3	-11.6	-2.1	-9.7	-9.8	-8.0	-7.7
Central African Republic	-4.7	4.8	-9.1	6.6	1.3	-1.4	-5.3	-0.2	-0.1	-2.0	-4.2	-4.8	-4.8
Chad	-1.1	3.0	13.7	0.7	17.8	-7.0	-5.1	13.4	2.6	-1.9	4.1	-2.2	-5.3
Congo	10.7	22.4	4.6	3.8	-4.2	-9.7	-2.9	-1.4	-0.6	-2.3	-1.7	-0.0	-5.2
Cote d'Ivoire	-0.2	-3.9	-6.6	-6.4	0.6	-0.4	-5.2	-5.6	-4.6	-5.6	-4.4	-3.6	-4.6
Gabon	-2.4	-5.8	-1.1	2.7	-6.4	-3.4	-19.3	10.6	3.9	0.8	3.7	-5.0	-0.3
Gambia, The	6.2	8.8	-7.8	-1.3	0.2	-1.7	-2.6	2.2	1.5	-3.0	1.8	-1.8	-1.5
Ghana	-5.5	-9.3	-7.5	5.0	1.3	1.5	1.1	2.1	1.7	-0.0	2.1	0.6	1.8
Guinea	NA	NA	NA	NA	NA	NA	-0.2	3.0	0.1	1.2	-0.4	0.3	1.6
Guinea-Bissau	16.7	2.6	-4.9	3.8	2.5	-2.9	3.4	4.6	2.9	0.8	0.7	0.7	0.9
Kenya	0.1	-2.0	-2.4	-2.0	0.7	3.6	2.5	2.9	1.6	1.3	-1.4	-3.5	-1.7
Madagascar	-12.2	-4.5	-1.7	-1.1	-1.7	-1.1	-1.9	0.2	0.8	-0.0	-9.3	-1.7	-1.0
Malawi	-8.1	-0.6	0.5	2.2	1.2	-3.8	-1.6	-0.5	1.7	1.1	2.9	-10.7	6.0
Mali	-2.3	1.8	-7.8	-0.2	-0.2	11.1	-1.2	-4.8	9.2	-2.2	-4.6	0.2	4.5
Mauritania	1.5	-4.1	2.7	-7.5	0.6	3.2	-0.4	-0.8	1.4	-4.7	0.0	-0.9	2.1
Mozambique	3.2	-10.6	-18.0	-7.4	-3.2	-4.8	10.3	6.8	3.8	-1.6	2.3	-3.2	16.2
Niger	-2.4	-5.2	-3.3	-20.6	-0.0	3.4	-5.7	1.8	-6.4	2.0	-0.7	-9.5	-1.9
Nigeria	-12.0	-3.9	-9.5	-7.2	6.0	-1.3	-3.1	6.6	3.7	2.6	2.1	1.2	-0.0
Rwanda	5.6	-1.1	3.4	-7.3	-0.1	2.0	-3.4	-3.7	-1.5	-2.5	-4.6	-0.0	0.9
Senegal	-4.4	12.0	-0.7	-6.8	1.0	1.5	0.9	2.0	-3.3	1.3	-1.7	-1.5	-4.6
Sierra Leone	5.5	1.5	-7.7	2.2	-7.8	-4.3	2.9	-0.4	0.2	2.2	0.0	-6.9	-1.9
Tanzania	-4.1	-3.5	-3.5	1.5	-1.8	2.4	1.8	4.2	5.3	4.1	-1.3	0.7	NA
Togo	-6.2	-6.5	-8.0	2.8	2.8	-1.8	-3.0	2.5	0.2	-3.5	-4.4	-12.4	-15.4
Uganda	NA	NA	NA	-6.6	-1.3	-1.4	3.5	4.8	3.7	0.5	0.2	-0.3	3.0
Zambia	2.3	-6.0	-5.2	-4.0	-1.6	-3.1	-0.0	2.4	-3.8	-2.5	-3.6	-5.6	3.6
Zimbabwe	10.2	-0.6	-1.9	-5.6	2.9	-2.8	-4.1	4.3	1.3	-1.0	1.9	-10.9	-0.6

Source: World Bank data.

Table B10. Gross Domestic Investment

(Percent of GDP)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Benin	15.7	27.6	17.3	12.8	8.9	13.5	12.9	12.8	11.8	14.2	14.3	13.8	15.2
Burkina Faso	15.9	20.1	19.2	15.9	24.2	24.5	19.1	21.6	21.2	19.1	22.7	21.4	22.1
Burundi	17.0	14.5	22.8	18.4	13.9	11.7	22.6	15.0	16.5	16.9	16.8	18.6	2.3
Cameroon	24.7	23.4	24.4	20.8	24.9	30.8	34.3	21.8	16.5	14.6	12.6	11.1	10.8
Central African Republic	8.7	6.7	11.8	12.3	14.5	12.2	12.5	10.6	16.2	10.2	11.8	11.8	8.6
Chad	NA	3.5	3.1	5.4	8.2	9.1	10.2	7.9	9.0	9.4	8.1	8.5	9.4
Congo	48.2	59.7	38.4	30.4	30.3	29.5	19.7	18.6	13.7	16.4	19.5	16.8	14.2
Cote d'Ivoire	25.9	23.2	18.4	11.2	12.6	11.1	12.2	14.4	8.4	9.3	10.0	10.9	9.3
Gabon	36.4	35.0	35.2	33.0	38.3	45.5	25.5	37.5	32.4	24.4	26.6	21.4	21.6
Gambia, The	24.5	20.6	17.3	19.2	12.5	19.6	15.5	17.6	20.4	19.7	19.7	19.6	NA
Ghana	4.6	3.4	3.7	6.9	9.6	9.7	13.4	14.2	15.5	14.4	15.9	12.6	14.8
Guinea	NA	NA	NA	NA	NA	14.1	15.6	15.9	15.6	17.6	15.9	16.9	16.4
Guinea-Bissau	25.7	28.3	22.7	30.0	32.0	24.3	34.2	34.2	37.1	24.5	27.0	26.5	24.0
Kenya	27.7	21.8	20.8	20.7	26.0	21.8	24.3	25.0	24.7	24.3	21.3	17.5	16.1
Madagascar	11.5	8.5	8.4	8.6	8.5	9.0	10.1	13.3	13.4	17.0	8.2	11.3	11.7
Malawi	17.6	21.4	22.8	12.9	18.6	12.3	15.4	18.7	20.2	19.1	20.0	18.8	12.9
Mali	17.5	17.6	14.6	15.2	17.4	20.7	22.3	21.0	21.3	22.4	23.1	21.9	21.9
Mauritania	41.9	47.1	17.8	25.1	28.9	30.6	29.2	28.0	18.5	20.0	17.9	22.5	24.8
Mozambique	22.8	22.8	12.2	13.9	9.1	18.8	26.2	34.8	34.6	38.1	39.0	38.4	41.5
Niger	20.3	18.2	12.8	3.2	15.3	13.3	10.5	19.8	12.3	8.1	9.2	5.4	5.7
Nigeria	23.3	20.0	14.7	9.5	9.0	15.1	13.7	13.5	14.1	14.6	16.3	18.2	NA
Rwanda	13.3	17.8	13.5	15.8	17.3	15.9	15.6	15.0	13.9	13.6	14.3	15.6	NA
Senegal	11.9	11.3	11.9	11.7	9.8	11.0	12.4	12.7	11.8	12.9	13.3	13.4	14.1
Sierra Leone	19.1	13.4	14.3	12.7	10.0	11.2	10.4	7.9	13.5	14.0	11.9	11.7	9.2
Tanzania	24.7	21.0	13.6	15.3	15.7	19.5	30.4	30.6	34.4	46.6	38.5	41.9	NA
Togo	30.2	26.3	22.1	21.2	24.1	27.8	22.2	24.6	25.0	25.4	22.8	21.9	11.7
Uganda	5.0	9.1	7.4	7.8	6.5	8.2	10.9	10.3	10.5	14.1	16.0	14.4	14.5
Zambia	19.3	16.8	13.8	14.7	14.9	23.8	13.9	11.4	10.8	17.3	14.7	14.1	10.7
Zimbabwe	23.1	21.2	15.9	18.9	19.8	18.6	17.2	21.7	19.8	20.4	25.0	24.3	22.5

Source: World Bank data.

Table B11. Real Export Growth

(Percentage change)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Benin	9.19	-25.90	-27.46	37.20	27.67	-8.85	5.30	-8.58	-25.90	1.14	7.44	12.88	-2.17
Burkina Faso	13.16	-13.95	-21.62	13.79	-1.08	9.44	19.75	-6.05	-8.44	32.16	-3.49	0.29	3.80
Burundi	58.97	7.96	-9.99	14.38	12.65	-13.09	6.82	10.51	-2.87	-5.58	16.32	1.10	-35.10
Cameroon	22.09	-4.55	20.16	32.82	13.67	-2.05	-0.33	-5.78	43.31	0.50	-4.20	1.00	-3.60
Central African Republic	3.81	-20.05	2.45	0.60	3.86	-12.43	-7.80	-6.09	11.89	-6.44	-13.77	-10.38	26.06
Chad	-9.83	-46.02	143.89	12.00	-19.82	8.31	12.30	12.46	5.29	11.68	-16.57	-6.68	-25.78
Congo	9.26	9.14	17.26	9.79	-6.50	-3.47	0.39	13.04	8.65	5.10	-6.11	8.93	11.51
Cote d'Ivoire	3.14	3.05	-4.94	10.60	-3.00	-2.70	-16.70	-5.70	18.39	6.50	-4.80	3.20	-1.71
Gabon	-7.22	-1.79	4.25	23.49	-6.91	-9.21	-6.37	3.29	34.14	11.06	2.80	3.68	6.08
Gambia, The	24.87	8.49	-6.02	-34.71	9.01	-5.29	3.68	24.51	21.53	2.38	4.21	NA	NA
Ghana	-8.85	15.24	-45.78	9.65	6.36	50.57	-3.82	11.11	11.43	41.28	14.88	6.40	21.75
Guinea	NA	NA	NA	NA	NA	NA	6.67	10.42	4.94	-0.69	1.08	-7.16	9.24
Guinea-Bissau	-28.33	-10.50	-7.40	36.71	-27.60	10.61	21.49	8.49	4.40	74.98	23.00	-30.00	63.73
Kenya	-4.19	3.18	-2.28	0.87	6.72	9.77	0.11	4.76	9.88	18.03	-0.87	-0.94	49.38
Madagascar	-26.21	-7.30	-12.34	5.39	-3.18	-0.05	2.87	-8.24	16.93	11.96	4.76	1.97	3.37
Malawi	-17.90	-9.97	3.31	32.78	5.05	-3.57	1.14	2.00	-14.90	24.88	5.32	-1.82	-3.58
Mali	-5.26	1.66	10.43	5.92	-0.75	3.35	-0.10	6.50	5.91	6.13	15.15	8.37	4.77
Mauritania	23.08	-8.25	29.74	-6.57	10.33	-2.02	1.66	0.98	0.44	-5.45	-2.83	-10.17	5.16
Mozambique	-10.99	7.83	-37.10	-37.18	-2.01	-1.49	8.67	5.45	8.67	8.32	31.19	1.79	3.40
Niger	-2.02	-22.68	6.15	-9.36	-10.02	-4.58	-0.43	3.31	-0.77	-1.61	-2.57	-14.34	18.62
Nigeria	-35.38	-19.97	-5.26	14.58	13.32	-0.25	-8.79	8.67	11.90	8.78	3.70	1.32	NA
Rwanda	1.24	1.84	6.54	-0.84	3.47	14.67	12.13	-17.12	-7.12	24.87	-13.84	-7.07	6.51
Senegal	-0.44	33.48	1.31	2.93	-15.86	15.16	-2.20	8.89	-2.95	-1.19	2.42	3.01	-1.31
Sierra Leone	-31.61	-13.68	-22.16	4.41	-1.78	-1.77	-9.45	1.21	-24.22	26.58	-5.90	43.46	-9.19
Tanzania	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Togo	-12.73	0.10	-11.43	0.21	3.33	19.52	8.77	6.31	-11.57	-10.62	2.85	-12.85	-27.57
Uganda	NA	NA	NA	8.95	11.28	-15.15	-0.20	4.35	14.58	-4.82	7.58	-2.65	24.01
Zambia	-12.75	15.69	-9.74	-6.85	-1.69	1.89	-5.93	-5.85	-1.41	15.95	-16.07	14.57	-2.10
Zimbabwe	7.67	2.49	0.35	-6.67	27.64	16.42	-4.87	4.72	5.39	0.74	-0.25	-15.94	4.62

Source: World Bank data.

Table B12. Net Aggregate Transfers
(Percent of GDP)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1980-92
Benin	7.37	10.29	18.92	9.17	2.43	2.18	4.45	6.93	6.69	15.71	10.60	11.46	10.43	8.97
Burkina Faso	9.46	12.95	11.42	11.97	10.32	9.35	9.89	9.25	8.85	8.27	8.05	11.91	12.53	10.33
Burundi	8.39	8.58	8.01	12.97	10.69	7.79	10.56	11.37	11.71	13.70	16.62	14.46	19.86	11.90
Cameroon	5.34	2.47	0.59	2.97	1.01	-3.15	-0.55	-0.38	2.10	6.58	5.68	2.90	5.77	2.41
Central African Republic	11.02	12.62	7.63	8.32	10.71	9.48	10.22	11.36	14.37	10.06	14.81	12.66	8.99	10.94
Chad	2.96	10.92	8.85	14.47	14.62	17.23	16.63	18.29	19.49	21.17	20.51	15.07	21.38	15.51
Congo	27.41	7.21	19.77	9.41	5.75	4.47	2.32	1.02	11.45	-3.97	-5.09	-7.10	-1.54	5.47
Cote d'Ivoire	4.82	4.83	4.21	-0.86	-5.21	-9.02	-8.13	-3.41	-0.63	-0.12	4.08	0.69	0.39	-0.64
Gabon	-5.25	-6.29	-4.62	-2.59	0.71	2.51	9.14	5.33	7.47	2.18	1.57	-1.32	-4.04	0.37
Gambia, The	34.83	39.20	25.53	9.07	22.35	12.87	28.07	29.83	19.30	21.61	12.05	14.07	17.17	22.00
Ghana	2.94	1.54	1.23	8.48	7.03	5.35	5.77	4.10	4.74	6.21	9.45	11.43	8.61	5.91
Guinea	NA	NA	NA	NA	NA	NA	9.28	4.07	9.43	10.79	4.15	8.62	8.91	7.73
Guinea-Bissau	96.37	37.03	29.12	25.74	45.64	53.44	43.08	48.88	40.51	52.27	32.21	29.70	32.63	43.59
Kenya	6.39	2.87	5.14	5.96	1.95	2.42	1.89	3.06	6.90	7.13	13.46	4.15	2.68	4.92
Madagascar	9.63	8.30	9.00	8.50	6.22	4.15	7.77	6.28	5.77	6.24	10.27	11.95	12.10	8.17
Malawi	13.56	10.02	4.19	5.53	7.11	2.27	5.57	11.73	15.85	15.47	15.08	13.92	16.22	10.50
Mali	12.25	16.04	17.37	21.39	22.42	18.38	17.00	12.40	13.66	15.02	12.56	11.96	12.24	15.59
Mauritania	24.79	23.54	30.83	23.64	18.67	21.47	21.90	15.31	11.66	15.95	8.42	8.45	15.30	18.46
Mozambique	3.14	3.79	4.11	8.90	51.77	14.88	14.06	50.69	55.54	53.66	63.14	74.90	104.33	38.69
Niger	8.63	15.24	5.06	7.28	5.42	13.89	11.36	9.37	8.04	10.75	11.72	9.28	14.83	10.07
Nigeria	1.05	2.24	2.61	1.04	-1.74	-2.97	-0.99	1.27	-3.43	-1.41	-6.43	-6.95	-9.46	-1.94
Rwanda	8.32	7.12	7.32	6.50	7.14	7.81	7.03	7.08	7.15	5.85	8.28	15.26	15.41	8.48
Senegal	7.85	12.40	13.00	16.40	9.67	6.20	9.42	7.63	3.56	7.63	8.87	4.86	7.01	8.81
Sierra Leone	6.60	5.50	5.56	3.20	3.19	6.88	1.68	5.87	6.66	5.63	7.68	9.69	7.84	5.84
Tanzania	16.17	10.11	8.72	7.59	10.42	4.36	13.39	17.78	24.43	22.89	37.67	28.78	38.73	18.54
Togo	8.76	2.37	2.40	9.59	2.97	14.76	1.35	0.49	5.11	5.21	8.65	6.04	6.55	5.71
Uganda	14.17	18.37	9.26	8.81	3.50	2.98	2.60	9.12	10.25	11.85	17.33	15.49	14.27	10.62
Zambia	9.10	11.86	3.01	4.48	9.43	11.80	20.27	9.48	8.15	4.63	16.98	4.78	NA	9.50
Zimbabwe	3.90	6.19	9.20	5.94	2.14	-0.81	-2.76	-1.91	-1.64	1.26	2.94	2.99	11.68	3.01

Source: World Bank data.
Note: Net transfers on IMF and LT debt plus grants, excluding technical assistance. Annual net transfer shock is calculated as the percentage change in net aggregate transfers. The net transfer shock for the regressions is defined as the difference in the average of the annual net transfer shock for the periods 1987-92 and 1981-86 times the the average of net aggregate transfers for the whole period.

Table B13. Barter Terms of Trade
(Price of merchandise exports/ price of merchandise imports

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Average Export Share (percent of GDP) 1981-1992
Benin	1.14	1.17	1.05	1.08	1.11	1.03	0.77	1.00	0.81	0.83	0.87	0.83	0.74	6.92
Burkina Faso	1.35	1.19	1.12	1.27	1.27	1.08	0.90	1.00	0.96	1.01	0.99	0.99	0.88	5.50
Burundi	1.33	1.09	1.24	1.21	1.36	1.33	1.58	1.00	0.85	0.68	0.48	0.44	0.38	8.74
Cameroon	1.51	1.48	1.44	1.42	1.46	1.39	0.98	1.00	0.87	0.82	0.76	0.70	0.66	11.98
Central African Republic	1.22	1.07	1.10	1.09	1.16	1.07	1.18	1.00	0.88	0.77	0.67	0.66	0.61	10.87
Chad	1.00	0.98	1.18	1.00	1.00	1.09	1.00	1.00	0.88	0.93	0.94	0.96	0.78	14.28
Congo	1.54	1.64	1.57	1.49	1.51	1.45	0.87	1.00	0.74	0.87	1.04	0.89	0.86	45.13
Cote d'Ivoire	1.14	0.96	0.99	1.05	1.13	1.10	1.20	1.00	0.89	0.77	0.69	0.68	0.65	34.85
Gabon	1.54	1.65	1.57	1.47	1.47	1.40	0.87	1.00	0.77	0.90	1.06	0.91	0.89	42.65
Gambia, The	1.20	1.27	1.08	1.13	1.25	1.16	1.05	1.00	1.00	1.25	1.31	1.22	1.12	17.42
Ghana	1.17	0.97	0.87	1.06	1.14	1.06	1.03	1.00	1.00	0.78	0.53	0.51	0.45	16.42
Guinea	1.50	1.52	1.40	1.31	1.26	1.20	1.00	1.00	1.00	0.97	1.05	0.97	0.84	27.59
Guinea-Bissau	0.37	0.79	0.74	0.75	0.90	0.91	1.00	1.00	1.11	1.20	1.06	1.10	1.15	8.28
Kenya	1.24	1.13	1.10	1.15	1.27	1.14	1.37	1.00	0.97	0.89	0.74	0.72	0.67	14.50
Madagascar	0.95	0.82	0.89	0.90	0.94	0.98	1.32	1.00	1.09	1.00	0.86	0.88	0.85	10.45
Malawi	1.51	1.31	1.26	1.26	1.32	1.04	1.10	1.00	0.98	0.98	0.92	0.95	0.90	21.16
Mali	1.16	1.08	0.97	1.09	1.09	0.95	0.87	1.00	0.99	1.01	0.96	1.00	0.86	14.84
Mauritania	1.01	1.04	1.10	1.07	1.10	1.13	1.19	1.00	0.89	0.96	1.05	1.15	1.07	41.52
Mozambique	0.81	0.90	0.77	0.82	0.95	0.93	1.08	1.00	0.94	0.93	0.93	0.96	0.91	14.26
Niger	1.16	1.17	1.21	1.25	1.24	1.26	1.17	1.00	1.35	1.31	1.10	1.04	1.00	16.13
Nigeria	1.86	2.04	1.88	1.83	1.85	1.67	0.83	1.00	0.72	0.85	1.03	0.87	0.84	23.61
Rwanda	1.13	0.97	1.06	1.04	1.16	1.16	1.56	1.00	0.97	0.89	0.72	0.74	0.58	8.51
Senegal	1.05	1.09	1.03	1.05	1.10	1.06	0.95	1.00	0.98	1.05	1.14	1.12	1.06	17.67
Sierra Leone	1.06	1.01	1.03	1.05	1.11	1.06	1.05	1.00	1.04	0.95	0.85	0.85	0.80	14.77
Tanzania	1.12	0.95	0.99	1.02	1.08	1.01	1.16	1.00	0.97	0.92	0.79	0.78	0.71	9.23
Togo	1.29	1.33	1.25	1.18	1.26	1.18	1.05	1.00	0.98	1.02	0.96	0.98	0.91	19.66
Uganda	1.49	1.20	1.32	1.33	1.49	1.43	1.73	1.00	0.92	0.74	0.52	0.49	0.42	11.84
Zambia	1.25	1.00	0.89	0.98	0.88	0.90	0.90	1.00	1.39	1.47	1.25	1.14	1.09	33.80
Zimbabwe	1.18	1.06	0.99	1.08	1.08	1.00	0.92	1.00	1.15	1.15	1.03	1.06	1.01	20.49

Source: World Bank data.
Note: Annual terms of trade shock calculated as the percentage change in the terms of trade times the average export share. The terms of trade shock used in the regressions is defined as the difference in the average of the annual terms of trade shocks for the periods 1987-92 and 1981-86 times the average export share.

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