The view that macroeconomic adjustment disproportionately hurts the poor in Africa has become commonplace. The popular media and the nongovernmental aid community frequently express this view in critiques of Bank-funded economic reform programs. Yet the evidence on which the claim has been based is flimsy and anecdotal. The emergence of more convincing data, from detailed household surveys in Africa, provides an opportunity to set the record straight.

The evidence from six African countries reviewed in this article demonstrates that poverty was more likely to decline in those that improved their macroeconomic balances than in those that did not. The critical factor is economic growth: the economy grew more rapidly and poverty declined faster in countries that improved macroeconomic balances, depreciating the real effective exchange rate. Changes in the real exchange rate also immediately and favorably affected rural incomes, benefiting the poor both directly and indirectly. But the findings also highlighted three causes for policy concern. First, many African governments have yet to display a real commitment to macroeconomic reform; second, the poorest of the poor have not benefited from recent growth in some countries; and, third, the prospects for the poor are not rosy unless there is more investment in human capital and better targeting of social spending.

How policy reforms in Africa affect poverty has been a subject of vigorous debate in recent years. Consider the following facts. More than thirty countries in Sub-Saharan Africa were embarked on economic reform programs of varying intensity during the second half of the 1980s and in the 1990s. At the same time, gross domestic product (GDP) per capita has stagnated in Sub-Saharan Africa. It declined in real terms by about 1 percent a year between 1988 and 1992. Real per capita consumption fell in twenty-three out of

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forty-one Sub-Saharan African countries during the same period. Faced with this evidence, observers have been drawn almost inescapably to the conclusion that the economic reforms typically advocated by the World Bank and the International Monetary Fund (IMF) have failed. And in the process, the reforms have damaged the well-being of the poor.

But the conclusion is fundamentally flawed in one critical respect—it implicitly treats Sub-Saharan Africa as a homogeneous whole, where economic reform is uniformly implemented and outcomes are consistently disappointing. In fact, it is now clear that economic reforms have been very unevenly applied—indeed in some countries “reforms” have moved in the wrong direction. And outcomes, as measured by changes in the extent of poverty, have been very diverse. The most striking finding, however, is the systematic link between policy implementation and outcomes for the poor—effective reform programs are associated with reduced overall poverty, inadequate ones with worsening poverty.

The key development that makes a solidly grounded analysis feasible is the recent availability of household sample surveys in Africa that provide measures of poverty at two points in time. Hitherto, discussion had to rely on theory; on indirect evidence, often from modeling exercises (Bourguignon, de Melo, and Morrisson 1991; Bourguignon, de Melo, and Suwa 1991; Dorosh and Sahn 1993); or on more anecdotal evidence (Watkins 1995). The intention here is to take the discussion further by examining the newly available evidence from six African countries. The first part of this article, therefore, documents the survey information for Côte d’Ivoire, Ethiopia, Ghana, Kenya, Nigeria, and Tanzania. Not all of the surveys are equally robust; nor do they cover all dimensions of well-being. Nevertheless, they are reliable enough to establish one key conclusion—changes in the well-being of the poor, at least as measured by real expenditures, are far from uniform.1 Some countries have experienced dramatic increases in poverty; others have seen significant declines.

These variations in outcome provide valuable information for assessing different policies. The second part of the article tries to identify which sets of policies have been associated with declining levels of poverty and which with worsening poverty. This analysis provides the most convincing evidence to date that economic reform is consistent with a decline in overall poverty—and, further, that a failure to reform is associated with increased poverty.

The association identified between economic policy and changes in poverty is interesting but does not by itself establish causality. The argument can be further substantiated, however, by a more detailed examination of two countries—Côte d’Ivoire and Ghana. Côte d’Ivoire’s failure to adjust effectively to external shocks during the period of study provides a convenient counterfactual to the success of Ghana’s reform efforts. Moreover, household data in these countries are particularly robust, offering an opportunity to examine the links between macroeconomic policy and the poor. This examination, undertaken in the third part of the article, highlights the pivotal role the exchange rate plays in ensuring effective equitable adjustment.
Poverty in Africa

Evidence on household welfare has improved in many African countries. We have household surveys for six countries at two points in time; the characteristics of the surveys are summarized in table 1. Survey dates vary, but they all cover the 1980s and 1990s, the years of so-called adjustment in Africa. Sample sizes are generally large, ranging from 498 households in Tanzania (1983) to 8,000 households in Kenya (1992–93). In all but one case, the surveys were designed to be nationally representative or representative of the rural population and were undertaken by national statistical agencies. The exception is Ethiopia, where the survey covered seven different areas of the country chosen to reflect the effects of the 1984–85 famine. The survey (initially carried out by the International Food Policy Research Institute and repeated by the Institute of Development Research in Addis Ababa) was designed to cover regional, ethnic, and agro-ecological diversity. Thus, although it is not nationally representative, the survey is sufficiently broad-based to be considered representative of a large section of rural Ethiopia.

In all cases, some data problems have been encountered. The results reported here are the best estimates available given these shortcomings. In broad terms the results reveal three things. First, changes in poverty have been quite diverse—one country shows a dramatic increase in the share of the population in poverty, one shows a roughly constant share, and four countries show significant declines. Second, whatever the change in poverty, economic growth or decline has been the principal influence; in other words, changes in inequalities of income (or expenditure) have played a secondary role. And third, the poorest of the poor have not always benefited, even when the poor on average have gained.

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage</th>
<th>Year 1</th>
<th>Sample</th>
<th>Source</th>
<th>Year 2</th>
<th>Sample</th>
<th>Source</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote d'Ivoire</td>
<td>National</td>
<td>1985</td>
<td>1,600</td>
<td>CILSS</td>
<td>1988</td>
<td>1,600</td>
<td>CILSS</td>
<td>Good</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Regional</td>
<td>1989</td>
<td>547</td>
<td>IFPRI</td>
<td>1994</td>
<td>1,453</td>
<td>CSAE/IDR</td>
<td>Good</td>
</tr>
<tr>
<td>Kenya</td>
<td>Rural</td>
<td>1982</td>
<td>5,800</td>
<td>RHBS</td>
<td>1992</td>
<td>8,000</td>
<td>SDA</td>
<td>Medium</td>
</tr>
<tr>
<td>Nigeria</td>
<td>National</td>
<td>1985</td>
<td>1,400</td>
<td>FOS</td>
<td>1992</td>
<td>1,400</td>
<td>FOS</td>
<td>Medium</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Rural</td>
<td>1983</td>
<td>498</td>
<td>RHS</td>
<td>1991</td>
<td>1,046</td>
<td>CERB</td>
<td>Poor</td>
</tr>
</tbody>
</table>


Source: Grootaert (1993); Dercon, Krishnan, and Kello (1994); Mukui (1994); Ferreira (1994); Canagarajah, Nwafon, and Thomas (1995); Coulombe and McKay (1995).
The Incidence of Poverty

The simplest measure of poverty is the head count index—the share of the population below some predetermined poverty line. The focus here is on absolute poverty; that is, the poverty line is held constant in real terms through time. No attempt, however, is made to use the same poverty line in the countries selected, in part because we rely mainly on secondary sources, but also because our interest is in changes in poverty, not in comparing levels of poverty between countries.

Table 2 shows the country-specific poverty lines and the corresponding shares in poverty for each survey. It reveals a diverse set of experiences. The incidence of poverty has changed significantly in some countries. These changes have occurred in relatively short periods of time (in all cases less than a decade) and have been in different directions in different countries. Thus the share of the population in poverty has increased by 16 percentage points in only three years in Côte d'Ivoire, whereas it has fallen by similar amounts in only five years in Ethiopia and eight years in Tanzania. The table also shows that for Kenya the incidence of poverty has remained roughly constant. Given the growth in population—3 percent a year or more—the number of poor in Kenya has undoubtedly increased. The data imply an increase of around 2 million rural Kenyans in poverty during the decade.

Growth and Inequality

The change in poverty shown in table 2 reflects the joint impact of a change in mean income (with inequality held constant) and a change in inequality (with mean income held constant). Decomposing the total change in poverty into these two constituent parts (table 3) allows us to identify the respective roles of growth and redistribution in reducing poverty. The result—that changes in mean income are consistently the principal agent of change in poverty—is consistent with results from other parts of the world. But table 3 also shows that the change in mean income and the change in inequality generally operate in opposite direc-

<table>
<thead>
<tr>
<th>Country and years of surveys</th>
<th>Poverty line (as a percentage of mean expenditure)</th>
<th>Percentage of population in poverty</th>
<th>Change (percentage points)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
<td></td>
</tr>
<tr>
<td>Côte d'Ivoire (1985/1988)</td>
<td>54</td>
<td>30.0</td>
<td>45.9               +15.9</td>
</tr>
<tr>
<td>Ethiopia, rural (1989/1994)</td>
<td>54</td>
<td>59.0</td>
<td>41.0               -18.0</td>
</tr>
<tr>
<td>Ghana (1988/1992)</td>
<td>50</td>
<td>36.9</td>
<td>31.4               -5.5</td>
</tr>
<tr>
<td>Kenya, rural (1981/1991)</td>
<td>54</td>
<td>51.5</td>
<td>48.7               -2.8</td>
</tr>
<tr>
<td>Tanzania, rural (1983/1991)</td>
<td>41</td>
<td>64.6</td>
<td>50.5               -14.1</td>
</tr>
</tbody>
</table>

Source: Grootaert (1993); Dercon, Krishnan, and Kello (1994); Mukui (1994); Ferreira (1994); Canagarajah, Nwafon, and Thomas (1995); Coulombe and McKay (1995).
Table 3. Effect of Changes in Economic Growth and Inequality on Poverty
(change in head count index in percentage points)

<table>
<thead>
<tr>
<th>Country</th>
<th>Effect of changes in economic growth</th>
<th>Effect of changes in inequality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote d'Ivoire</td>
<td>+19.4</td>
<td>-3.5</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>-23.5</td>
<td>+5.5</td>
</tr>
<tr>
<td>Ghana</td>
<td>-4.8</td>
<td>-0.4</td>
</tr>
<tr>
<td>Kenya</td>
<td>-6.2</td>
<td>+3.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>-13.6</td>
<td>+4.7</td>
</tr>
<tr>
<td>Tanzania</td>
<td>-33.4</td>
<td>+19.3</td>
</tr>
</tbody>
</table>

Note: The results reported here are the average of two decompositions, one using the initial period mean and Lorenz curve, and the other using the terminal period mean and Lorenz curve. This procedure ensures an exact decomposition, that is, it eliminates any residual. Other procedures are possible, but the basic result reported in the text regarding the greater importance of growth is unlikely to be affected.

Source: Authors' calculations, based on the following: Grootaert (1993); Dercon, Krishnan, and Kello (1994); Mukui (1994); Ferreira (1994); Canagarajah, Nwafon, and Thomas (1995); Coulombe and McKay (1995).

What Happened to the Poorest of the Poor?

The finding that changes in inequality and changes in mean income have generally worked in opposite directions can have especially important implications for the poorest of the poor. One possible outcome is immiserizing growth: the poor as a whole may benefit from growth despite worsening inequality, but the bottom decile may see their incomes decline. The other possibility is that the change in inequality protects the bottom decile when mean income is declining. What happened to the well-being of the poorest groups in these six countries?

Table 4 reports the incidence of poverty in five of the six countries, based on a poverty line that defines approximately 10 percent of the relevant population as poor in the base year. This line is then kept constant in real terms in estimating the incidence in the terminal year. The table shows that the incidence of "hard-core" poverty declined in Ghana and rose in Cote d'Ivoire, reflecting the trends observed in table 2.

But in three cases—Kenya, Nigeria, and Tanzania—real expenditure of the poorest of the poor declined, even though the incidence of poverty fell nationwide. This spending decline is particularly marked in Tanzania, suggesting that the poorest 10 percent of the population was noticeably worse off in 1991 than in 1983. These poorest 10 percent are reported to earn very low incomes—less than 6 percent of average income, and less than 14 percent of the upper poverty line. Analysis suggests that the incidence of poverty as a whole would have risen had the poverty line been set at levels equal to or less than 40 percent of the
Table 4. Trends in Hard-Core Poverty

<table>
<thead>
<tr>
<th>Country and years of surveys</th>
<th>As a percentage of mean expenditure</th>
<th>As a percentage of upper poverty line</th>
<th>Percentage of population in poverty</th>
<th>Change (percentage points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Côte d'Ivoire (1985/1988)</td>
<td>27</td>
<td>50</td>
<td>10.0</td>
<td>+4.1</td>
</tr>
<tr>
<td>Ghana (1988/1992)</td>
<td>33</td>
<td>67</td>
<td>10.2</td>
<td>-4.0</td>
</tr>
<tr>
<td>Kenya (1981/1991)</td>
<td>27</td>
<td>50</td>
<td>10.1</td>
<td>+4.0</td>
</tr>
<tr>
<td>Nigeria (1985/1992)</td>
<td>31</td>
<td>47</td>
<td>10.0</td>
<td>+2.5</td>
</tr>
<tr>
<td>Tanzania (1983/1991)</td>
<td>6</td>
<td>14</td>
<td>10.3</td>
<td>+10.6</td>
</tr>
</tbody>
</table>

a. This poverty line identifies 10 percent of the population as poor in the initial year. Thus, in the case of Côte d'Ivoire, the line is 27 percent of mean expenditure and 50 percent of the poverty line used in table 2.

Sources: Grootaert (1993); Mukui (1994); Ferreira (1994); Canagarajah, Nwafon, and Thomas (1995); Coulombe and McKay (1995).

upper line (Ferreira 1994). In Kenya the incidence of “hard-core” poverty increased by 4 percentage points. And despite the marked decline in poverty overall in Nigeria, the incidence of core poverty increased by 2.5 percentage points between 1985 and 1992. Indeed, poverty incidence would increase in Nigeria using any poverty line up to about 50 percent of the poverty line used in table 2. These results are a telling reminder that an exclusive focus on the poor as a homogeneous group can obscure the fact that some poor can be worse off even when the living standards of most poor are improving.

Policy and Poverty

A recent study of macroeconomic policy in Sub-Saharan Africa (World Bank 1994) has provided a valuable quantitative base for investigating the link between policy and poverty. The study provides a consistent set of data for key variables and a method of combining a range of macroeconomic policies—fiscal, monetary, and exchange rate—into a single index.3 To illustrate the approach, the fiscal component of the index is based on the overall fiscal balance and total revenue. Scores are applied on a consistent basis to performance in each of these areas and then added to arrive at the fiscal component of the index. A similar procedure is followed for the exchange rate and monetary components. The final index is a weighted average of performance in each of the three areas of policy, the weights reflecting the importance of each component in determining growth as revealed by cross-country regression analysis (table 5).

For the present purpose, the change in the index of macroeconomic policy has been calculated with reference to the periods covered by each country's two surveys. Specifically, the procedure adopted is as follows:

44 The World Bank Research Observer, vol. 11, no. 1 (February 1996)
Table 5. Index of Changes in Macroeconomic Policies
(weighted average of performance)

<table>
<thead>
<tr>
<th>Country</th>
<th>First survey</th>
<th>Second survey</th>
<th>Change in fiscal policy</th>
<th>Change in monetary policy</th>
<th>Change in exchange rate policy</th>
<th>Overall change in macroeconomic policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Côte d'Ivoire</td>
<td>1985</td>
<td>1988</td>
<td>-2</td>
<td>1.0</td>
<td>-2.0</td>
<td>-1.65</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1989</td>
<td>1994</td>
<td>-1</td>
<td>-1.0</td>
<td>2.0</td>
<td>0.55</td>
</tr>
<tr>
<td>Ghana</td>
<td>1988</td>
<td>1992</td>
<td>0</td>
<td>0.5</td>
<td>2.5</td>
<td>1.35</td>
</tr>
<tr>
<td>Kenya</td>
<td>1982</td>
<td>1992</td>
<td>1</td>
<td>-1.5</td>
<td>0.5</td>
<td>0.45</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1985</td>
<td>1992</td>
<td>1</td>
<td>-1.0</td>
<td>3.0</td>
<td>1.79</td>
</tr>
<tr>
<td>Tanzania</td>
<td>1983</td>
<td>1991</td>
<td>3</td>
<td>1.0</td>
<td>3.0</td>
<td>2.76</td>
</tr>
</tbody>
</table>

Note: For detailed method of calculating index, see note 3, page 57.

Source: All data for all countries except Ethiopia from Bouton, Jones, and Kiguel (1994, tables B1, B2, B4, B5, B7, and B8). Data for Ethiopia from IMF (1991, table 4 and appendix tables III and LXII); IMF (1994, table 2 and appendix tables V and XXXVII), and International Currency Analysis, Inc. (various years).

- The initial index is calculated as the average of the year of the first survey and the two preceding years. This index provides a measure of the macroeconomic stance before and during the period of the first survey.
- The final index is calculated, in the same way, as an average of three years—the year of the second survey and the two preceding years. This procedure allows for the effects of policy changes to work their way through the economy. The choice of three years is arbitrary, although some support is found in modeling exercises (such as Bourguignon, de Melo, and Suwa 1991).
- The change in macroeconomic policy is then the difference between the initial and final indexes.

The change in the index and the corresponding change in poverty are shown in table 6.

Table 6. Macroeconomic Policy and Poverty

<table>
<thead>
<tr>
<th>Country</th>
<th>Survey years</th>
<th>Change in macro policy (weighted score)</th>
<th>Change in poverty (percentage points per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Côte d'Ivoire</td>
<td>1985/1988</td>
<td>-1.65</td>
<td>+5.30</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1989/1994</td>
<td>+0.55</td>
<td>-3.60</td>
</tr>
<tr>
<td>Ghana</td>
<td>1988/1992</td>
<td>+1.35</td>
<td>-1.95</td>
</tr>
<tr>
<td>Kenya</td>
<td>1982/1992</td>
<td>+0.45</td>
<td>-0.28</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1985/1992</td>
<td>+1.79</td>
<td>-1.27</td>
</tr>
<tr>
<td>Tanzania</td>
<td>1983/1991</td>
<td>+2.76</td>
<td>-1.83</td>
</tr>
</tbody>
</table>

Source: Tables 2 and 5.
dence of poverty overall. Recall that an increase in the index measures improvement in fiscal policy, monetary policy, and exchange rate policy. The evidence shows that in the five countries experiencing progress on these fronts, poverty declined. And in the one country where policies deteriorated, poverty increased. These results do not establish causality, but, at least in the six countries for which we have evidence, we can conclude that failure to implement an adjustment program has been doubly harmful to the poor—they lose the benefits that adjustment can bring, and they suffer worse deprivation under likely alternative policy regimes characterized by larger fiscal deficits and overvalued exchange rates. This is a frequent finding of modeling exercises—heterodox policies, often designed to protect the poor, end up making matters worse for them.

**How Policy Affects the Poor**

Recent history in this handful of African countries, therefore, suggests close links between poverty on the one hand and macroeconomic balances and the rate of economic growth on the other. What is the nature of the connection, and what processes are at work? What would have happened to poverty had macroeconomic balances not changed in these countries? These questions are difficult to answer by simply tracing what happened over time. One approach is to use a computable general equilibrium (CGE) model, which can disentangle the effects of policy variables from other influences. This technique is used in several recent studies, notably in research at the Organization for Economic Co-operation and Development (OECD) (Bourguignon, de Melo, and Morrisson 1991) and Cornell University (Dorosh and Sahn 1993).

These CGE modeling exercises convey three important messages. First, the shocks that destabilized the developing world were harder on the poor than the adjustments that followed. Dorosh and Sahn (1993) conclude that the terms of trade shocks in Sub-Saharan Africa were so pervasive that the real incomes of most household groups suffered. Second, the models highlight the diversity of experience with structural adjustment, depending on the characteristics of the country, the shocks it faced, and the policy responses it applied. Finally, the models show that orthodox macroeconomic adjustment packages usually lead to more favorable outcomes for poverty than alternative (heterodox) adjustment strategies. For example, using an “archetypal” CGE model for Africa, Bourguignon, de Melo, and Suwa (1991) demonstrate that “rationing” adjustment through the application of import controls in many ways postpones adjustment and is worse for poverty than the orthodox package. Dorosh and Sahn (1993) obtain similar results from four African CGE model case studies.

The CGE model experiments highlight the processes through which macroeconomic adjustment can favorably affect the poor. The combined effect of exchange rate, fiscal, and monetary policies is to reduce the real exchange rate. A real exchange rate depreciation influences income distribution and poverty through three main channels. First, it raises overall economic growth, mainly...
through export expansion. Evidence for this effect comes not only from CGE models (for example, Dorosh and Sahn 1993), but also from cross-country analysis. Countries that avoid fiscal deficits and overvalued real exchange rates grow faster (Bouton, Jones, and Kiguel 1994; Easterly and Schmidt-Hebbel 1993).

Second, real exchange rate depreciations affect the structure of output and the resulting distribution of incomes, favoring producers of tradable goods (exports and import substitutes) and consumers of nontradables (such as housing and retail services). CGE models invariably show that real exchange rate depreciation leads to resource reallocations toward agriculture, raising the incomes of rural households. And because the poor are to be found mainly in this sector, real exchange rate depreciations tend to raise their incomes disproportionately. For recent evidence in Africa, see Dorosh and Sahn (1993) and Sarris (1994b).

Finally, depreciations in the real exchange rate reduce rents derived from previous policy interventions, such as import quotas and exchange controls. These policies benefit the favored few who possess import licenses and have access to rationed foreign exchange. When these interventions are replaced by exchange rate adjustments, these groups (mainly middle- to upper-income urban households) lose their rents. As a result, governments have little room to maneuver in balancing efficiency and equity with political sustainability in designing macroeconomic adjustment. Removing distortions that improve efficiency and equity can lead to losses by politically powerful groups (Bourguignon, de Melo, and Morrisson 1991; van de Walle 1991).

The CGE models provide a useful analytical framework to guide our thinking about the effect of economic policy on the poor. Within this framework, the discussion that follows explores in more detail the link between policy and poverty in two countries—Côte d’Ivoire and Ghana. These two countries are chosen for two reasons. First, despite many similarities, they adopted very different policies with respect to the exchange rate. In a sense, each serves as the counterfactual example for the other. And second, the most reliable and detailed data on the poor are available for these countries.

A Comparison of Côte d’Ivoire and Ghana

These two West African countries, similar in many respects, but critically different in their responses to adverse external events, present a fascinating comparison. Both countries are highly dependent on one or two key exports—principally, cocoa—and both have therefore been affected by instability in world prices and have experienced dramatic declines in their terms of trade. Poverty is predominantly rural in both countries, much of it occurring among small-scale farmers and among the self-employed.

But as figure 1 reveals, the two countries have coped with external shocks in significantly different ways, with dramatic differences in outcomes. (For more detail on the adjustments in these countries, see Demery 1994 for Côte d’Ivoire...
and Alderman 1994 for Ghana.) First, both countries were destabilized by external shocks—notably a deterioration in the terms of trade—but whereas effective government collapsed almost completely in Ghana, in Côte d'Ivoire the government continued to play an active, possibly overactive, role. Ghana adjusted promptly, as early as 1983, with its Economic Recovery Programme (ERP). And the cornerstone of the ERP was a sharp depreciation in the exchange rate, combined with trade liberalization. Although inflation continued to dog the adjustment effort, the real exchange rate depreciated throughout the decade. Increasing government revenues meant that adjustment did not entail dramatic expenditure cuts, so effective government was slowly restored as a result. Growth was also restored and has been maintained at around 5 percent a year in real terms for much of the 1984–94 period. Real per capita private consumption has also grown steadily, although more slowly. But the adjustment in Ghana has not been without its limitations. The government has maintained its role in export-crop marketing, and the pace of privatization has been slow. The government has also faced difficulties in managing its fiscal deficit and controlling inflation.

Côte d'Ivoire, by contrast, was constrained by its membership in the CFA (Communauté financière d'Afrique) franc zone, involving fixed exchange rate parity with the French franc. When the terms of trade dipped sharply after a brief recovery in 1984–86, the French franc appreciated against the U.S. dollar, causing a marked and perverse appreciation in Côte d'Ivoire's real exchange rate. Attempts to implement trade liberalization and other trade policies to mimic a devaluation failed. As a result the government was obliged to adopt an internal adjustment strategy, relying heavily on cuts in public expenditure. The only way it could restore the macroeconomic balances was to depress economic activity. And that is just what happened: GDP (and with it per capita private consumption) declined for most of the 1980s and early 1990s (see figure 1).

Why did the Ivorian government persist with this adjustment strategy, despite its evident economic and social costs? The answer is to be found mainly in the complex political economy of the country. Van de Walle (1991) argues that two particular features of the political economy largely account for the government's failure to implement key structural reforms—the importance of the urban elite and the patrimonial roots of the political system. These features help explain why the government failed to loosen its control of the functioning of the economy and also why governments in the CFA franc zone persisted so long in maintaining seriously overvalued currencies, despite the evident costs of the policy. An overvalued real exchange rate had specific advantages for groups that supported the government, notably the urban elites who benefited at the expense of rural-based farmers. Because of these deep-seated political-economic pressures, the government delayed initiating fundamental change until 1994, when the CFA franc was finally devalued. Distributional considerations, therefore, figured prominently as causes of the failure to adjust.

To summarize, the key difference between the two countries lies in trade policy. Ghana liberalized and depreciated its exchange rate, whereas Côte d'Ivoire...
Figure 1. Macroeconomic Trends in Ghana and Côte d'Ivoire

Ghana

Index
300
240
220
160
140
120
100
80
60
40

Côte d'Ivoire

Index
160
140
120
100
80
60
40

Survey period

Terms of trade
Real exchange rate
Real private per capita consumption

was fettered in its attempts to do so. An expenditure-switching policy enabled Ghana to restore growth, whereas the internal adjustment strategy of Côte d'Ivoire effectively sacrificed the growth objective. What did these quite different policies mean for the well-being of the poor?

More disaggregated evidence on the changes in the poverty head count ratios in Côte d'Ivoire and Ghana is reported in table 7. (The groups reported in the table were derived using similar methodologies; see Grootaert 1993 and Ghana Statistical Service 1995.) Three messages emerge from the findings of household surveys in these countries.

**Benefits of Recovery versus Costs of Decline.** The deterioration in living standards in Côte d'Ivoire arising from the internal adjustment strategy has affected all groups. In Ghana, by contrast, most groups appear to have benefited from the ERP-induced recovery, a further confirmation of the key role played by economic growth in reducing poverty (see also table 3). These findings in turn suggest that in these cases, the main effect of macroeconomic policy on poverty was through broad-based growth (Ghana) or decline (Côte d'Ivoire).

The intercountry regression linking growth in GDP per capita with its determinants, which was used to obtain the weights for the macroeconomic index (Bouton, Jones, and Kiguel 1994), can also be used to show how each country would have fared with the other's macroeconomic policies. Thus the predicted annual growth in GDP per capita for Ghana for the period 1987–92 would have

<table>
<thead>
<tr>
<th>Type of employment</th>
<th>Côte d'Ivoire</th>
<th>Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food-crop farmer</td>
<td>+15.6</td>
<td>52.4</td>
</tr>
<tr>
<td>Export-crop farmer</td>
<td>+18.1</td>
<td>17.7</td>
</tr>
<tr>
<td>Self-employed</td>
<td>+20.0</td>
<td>14.8</td>
</tr>
<tr>
<td>Public employee</td>
<td>+16.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Private employee</td>
<td>+8.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Informal employee</td>
<td>+28.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Unemployed</td>
<td>+34.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Inactive</td>
<td>+13.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Total population</td>
<td>+15.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

n.a. Not available.

a. These columns show the share of each group in the total population of poor in the terminal year. Thus, in Ghana, food-crop farmers accounted for 54.4 percent of the poor in 1992.

*Source: Grootaert (1993); Ghana Statistical Service (1995).*
fallen from 0.15 percent (with Ghana's policies) to -6.74 percent (with Côte d'Ivoire's policies). Because it is based on the same regression, the corresponding exercise for Côte d'Ivoire shows the same difference in growth rate, from -4.39 percent (with Côte d'Ivoire's policies) to 2.50 percent (with Ghana's policies). These predictions are, of course, only as robust as the underlying regression model and cannot be relied upon as accurate indicators of the effects of macroeconomic policy in each case. But they illustrate the potential orders of magnitude involved. Macroeconomic policies made a critical difference to economic growth. There can be little doubt that they made a positive contribution in Ghana and a negative contribution in Côte d'Ivoire. And this made all the difference to poverty outcomes.

**Contrasting Fortunes of the Rural Poor.** It is clear that of all the groups in Ghana the rural poor appear to have benefited most, in direct contrast to their counterparts in Côte d'Ivoire. The majority (around 85 percent) of the poor in both countries are to be found among three predominantly rural socioeconomic groups—food-crop farmers, export-crop farmers, and the self-employed. In Côte d'Ivoire these groups experienced a serious decline in living standards (between 1985 and 1988), with increases in the incidence of poverty in the 15–20 percentage point range. This deterioration appears to have continued after 1988 (Grootaert 1994). In contrast, the survey evidence in Ghana suggests that the welfare of these same groups improved and poverty declined.

The factors responsible for these contrasting fortunes are complex. Weather can play a part. The final year of the Ghana data, 1992, was a good year for agricultural producers in the region compared with 1988, the final year for the Côte d'Ivoire data. The overall state of the economy in generating demand for food and labor would also strongly affect rural incomes. Under its internal adjustment strategy, Côte d'Ivoire's economy was functioning well below its capacity, with significant repercussions for the production of all goods—tradables and nontradables alike. In Ghana the recovery in output would imply the opposite process, with favorable effects on the demand for food and rural labor (as well as on production of export crops). There is evidence that the recovery in Ghana led to an increase in nonfarm self-employment, much of which was in trading activities. The share in the total income of the poor derived from nonfarm self-employment increased from 18 percent in 1988 to 25 percent in 1992 (World Bank 1995a). Trade liberalization in this period and the strong growth in imports would be consistent with this improvement. Rural poverty appears to have declined in Ghana in part because of income diversification and an increase in nonfarm activities, which resulted from a more favorable economic climate. In direct contrast to this experience, poverty among the self-employed in Côte d'Ivoire rose sharply as the economy deteriorated.

In addition to these across-the-board effects of adjustment and recovery, the real exchange rate adjustments would bring about more selective changes in rural incomes. How important were these expenditure-switching effects in in-
fluencing rural poverty in Côte d'Ivoire and Ghana? Grootaert (1993, 1994) concludes that the appreciation in the real exchange rate and the decline in terms of trade after 1985 were significant in increasing poverty among export-crop farmers in Côte d'Ivoire. The share of poor export-crop farmers in the total population of such farmers increased sharply between 1985 and 1988. Further big cuts in producer prices in 1989 and thereafter would certainly have made matters even worse for them.

In Ghana the story is more complex. It is clear from movements in the real exchange rate that the main expenditure-switching effect of the ERP occurred before 1987 (see figure 1). During the period covered by the household data, there appeared to be a “pause” in the adjustment, with the depreciation in the real exchange rate leveling off. This pause did not arise from any abandonment of the ERP, but rather was a reflection of its success. The ERP induced an inflow of net transfers from abroad (on the capital account of the balance of payments), which caused the exchange rate to stabilize (Younger 1992). In preventing further depreciation in the real exchange rate, these inflows had a “Dutch disease” effect, adversely affecting the returns to the production of exportable and importable goods. And this phenomenon was reflected in relative price movements during the decade. Sarris (1994a) shows that relative price effects were important in reducing poverty up to 1987–88; thereafter real prices of export crops fell—a result in part of further terms-of-trade losses, but also of continued taxation through cocoa pricing policy. Up to 1987, real food prices fell noticeably. Since then, no marked trend has been discernible.

The relative price changes that occurred before 1987 had profound effects on the rural economy, inducing a remarkable growth in real exports. Merchandise exports grew in real terms by 22 percent a year between 1983 and 1986. Cocoa output expanded during this period. Net payments to cocoa farmers increased from 5 billion cedis in 1983–84 (in constant 1985 prices) to more than 13 billion cedis in 1987–88 (Alderman 1994)—an immediate and dramatic result of the exchange rate adjustment. Other rural sectors, such as logging and mining, also benefited from the exchange rate policy. Log exports grew in real terms by more than 42 percent a year between 1983 and 1986. Overall, the share of exports in GDP rose from just 2 percent in 1983 to 16 percent in 1986 (World Bank 1995a). The shift in price incentives brought about by the real exchange rate depreciation before 1987, therefore, led to a strong export response from the rural sector, inducing a recovery in rural output and incomes, which was good for the rural poor. Using a model calibrated on 1987–88 data from the Ghana Living Standards Survey (GLSS), Sarris (1994a) demonstrates that these relative price (and other) changes were likely to have increased real incomes from both agriculture and rural nonfarm self-employment. He presents a strong case that the relative price changes up to 1987 sent powerful poverty-reducing signals through the economy. Although the increase in cocoa prices benefited some of the poor, this was not the only, or the main, source of the fall in poverty. While a high proportion of export-crop farmers are poor—37 percent in 1992, according to
estimates of the Ghana Statistical Service (1995)—their contribution to total poverty is not significant (fewer than 8 percent of the poor are in this category).

In sum, the evidence suggests that the expenditure-switching effects of the ERP were important in raising living standards in rural areas up to about 1987, but not during the period covered by the GLSS household surveys. The survey data confirm that declines in poverty between 1988 and 1992 appear to be attributable to the broader economic effects of the recovery. All groups (apart from public employees) seem to have benefited equally.

**BAD NEWS FOR THE URBAN POOR.** Despite their contrasting adjustment records, the urban poor in both countries experienced difficult times. In 1985 just 3 percent of the Abidjan population were poor. By 1988, 14 percent were poor. The episode of internal adjustment clearly harmed urban groups the most, despite the government's intention to protect the incomes of the urban elites. Even if the very wealthy groups benefited from overvalued exchange rates, the majority of the urban population was hit badly by the policy-induced recession. Even some employees in the mostly urban-based formal sector joined the ranks of emerging "new poor"—the incidence of poverty rose to more than 20 percent for the public sector and 15 percent for the private sector. Whereas increased poverty is a predictable outcome of the internal adjustment strategy in Côte d'Ivoire, in the Ghanaian context it is more noteworthy. Living standards in the capital city, Accra, seem to have deteriorated during 1988–92, in contrast to the improvements elsewhere in the country (Ghana Statistical Service 1995). Although most sections of the Accra population have become worse off, there is evidence that middle-income groups suffered greater losses than the poor (World Bank 1995b). These losses are certainly linked to high inflation in Ghana and its adverse effects on those in wage employment.

**An Important Postscript**

The recovery in output and incomes in Ghana appears to have been broad-based in its effect. Yet these observed changes occurred over a relatively short period. Both countries are concerned to establish a more sustainable long-term growth path—Ghana is seeking to accelerate its growth, while the devaluation of the CFA franc (in January 1994) has renewed prospects and expectations for growth in Côte d'Ivoire. Will the poor benefit from future economic growth? For long-term growth to be effective in reducing poverty, two conditions must apply. The growth itself must be sufficiently labor-intensive, generating income opportunities for the poor. And the poor must have the means to acquire human capital—primarily, access to adequate education and health services—to enable them to respond to these opportunities (World Bank 1990). Typical economic reforms under structural adjustment (such as restoring competitive exchange rates and removing distortions in product and factor markets) should shift the economy toward a labor-intensive growth path. But the critical question for

*Lionel Demery and Lyn Squire*
Côte d'Ivoire and Ghana is whether the human resources of the poor are of sufficient quality for them to benefit from future growth-promoting policies.

Are the poor in Côte d'Ivoire and Ghana supported adequately by investment, particularly government investment, in human capital? In the newly industrialized countries of East Asia at the start of their rapid economic growth, human capital was already considerably more developed than it is in Ghana and Côte d'Ivoire today. Literacy rates in Côte d'Ivoire of 54 percent (in 1990) and in Ghana of just 49 percent (1992) compare with 71 percent in the Republic of Korea (1960), 70 percent in Hong Kong (1960), 69 percent in Singapore (1970), 58 percent in Malaysia (1960), and 79 percent in Thailand (1970). The combined effects of economic recovery and education reforms have increased school enrollments in Ghana, but the education system still needs improvement; resources need to be better managed to improve the quality of service. Enrollments in Côte d'Ivoire, on the other hand, declined in the latter half of the 1980s, partly because of the deteriorating economic circumstances faced by households. Poor quality of service (resulting from very limited spending on nonsalary items, such as books, supplies, and building maintenance) exacerbates the problem for the Ivorian education system.

Similarly, the infant mortality rates in Côte d'Ivoire and Ghana are currently higher than were those of Korea, Malaysia, and Singapore in 1960, or Thailand in 1970 (World Bank 1992). Both countries made progress (especially Ghana) in providing preventive services to rural areas, but their health systems continue to be generally too urban-based.

Recent studies on the incidence of public social expenditures in Côte d'Ivoire (Demery, Dayton, and Mehra 1996) and Ghana (Demery and others 1995) show similar patterns in the two countries. Using “benefit incidence” methodology, the researchers allocate the in-kind subsidies embodied in the provision of health and education services to households depending on their use of the service. Households whose members enroll in publicly funded schools or who visit subsidized health facilities, in effect lay claim to an in-kind transfer from the state. Table 8 reports some preliminary findings of this exercise. The poorest 20 percent of the population gained just 11 percent of the total government health subsidy in Côte d'Ivoire and just 12 percent in Ghana; more than 30 percent of the subsidy went to the richest quintile in each country. For education, similarly, the poorest quintile gained just 14 percent of the total subsidy in Côte d'Ivoire and 16 percent in Ghana, with larger shares going to the richest quintile (especially in Côte d'Ivoire). These patterns are similar to those observed elsewhere in Africa. And they stand in stark contrast to the patterns in Colombia and Malaysia, where public services are targeted more effectively to the poor.

The figures in table 8 speak for themselves. Reforms in the education sector have achieved major gains in Ghana (reflected to some extent in the incidence results), but both countries need to target services to those facilities used by rural communities, with far less emphasis on urban-based services that mainly benefit the nonpoor.
Table 8. The Incidence of Public Social Expenditures, Côte d'Ivoire, Ghana, and Selected Countries

(percentage of total government spending on health and education)

<table>
<thead>
<tr>
<th>Country and date</th>
<th>Health</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poorest quintile</td>
<td>Richest quintile</td>
</tr>
<tr>
<td>Côte d'Ivoire (1995)</td>
<td>11</td>
<td>32</td>
</tr>
<tr>
<td>Ghana (1992)</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Other countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia (1992)</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Malaysia (1989)</td>
<td>29</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Demery, Dayton, and Mehra (1996); Demery and others (1995).

Summary and Conclusions

The debate over structural adjustment and poverty in Africa continues to attract a great deal of attention. In our view, the lack of data at the household level has been one source of confusion and disagreement. Many observers have relied either on pan-African generalizations or, at the other extreme, on anecdotal evidence of specific cases of improvement or hardship. Neither of these approaches is a reliable basis for policy formulation. With more recent data becoming available, there are now opportunities to begin putting the record straight. And a clearer picture is emerging. In short, where countries have applied rational and consistent responses to external shocks and have reversed previous inappropriate policies, there is evidence of a growth dividend. This recovery has generally benefited the poor. Earlier fears that the poor would bear a disproportionate share of the burden of adjustment in Africa appear not to have been well founded—at least judging from the data that are now at hand. In countries (such as Kenya and Côte d'Ivoire) that were ambivalent about the reform agenda or that delayed implementing much-needed policy changes, the poor have lost ground. These conclusions, however, must be subject to one important caveat: there is some evidence that the poorest of the poor have not benefited as much from economic recovery and in some cases have become worse off. If these poorest groups are, as Lipton (1988) suggests, dislocated from markets and infrastructure, economic recovery has little to offer them, which may explain why income inequalities in some of the countries reviewed here (Kenya, Nigeria, and Tanzania) widened with the recovery.

Two particular cases illustrate contrasting experiences with external shocks, adjustment, and poverty. Côte d'Ivoire was seriously fettered in its adjustment because of its obligations to maintain nominal exchange rate parity. Unable to follow an expenditure-switching policy and unwilling to introduce needed market liberalization to make its internal adjustment strategy work,
the country experienced negative growth and increasing poverty. If there is any message coming from the Ivorian experience, it is that delays in adjustment make matters much worse for the poor. In Ghana swift action with the exchange rate succeeded in bringing about a recovery in output following the desolate years of the early 1980s. Since then, a sustained annual growth of 5 percent appears to have been sufficiently broad-based to have reduced poverty among most groups in society. Apart from confirming the view that improved macroeconomic policy need not entail high social cost (rather the reverse), these cases emphasize the critical role of the exchange rate. Where the instrument was used consistently and with purpose to correct previous disequilibria, the outcomes were favorable both for stimulating growth and for reducing poverty. Persistence with overvalued exchange rates does nothing to improve the lives of the poor.

The findings should be no cause for complacency. The adjustment in Africa displays several weaknesses. From the evidence of recent policy actions, African governments have yet to display a real commitment to policy reform. Macroeconomic imbalances continue to characterize many economies, even those, such as Ghana, that have been engaged in adjustment for more than a decade. Governments continue to interfere in markets. This continuing ambivalence does not encourage private investors to commit themselves to the region, nor does it appear to favor the poorest segments of African society. Even apart from the indications that urban poverty appears to have increased significantly, the poorest of the poor may have lost during the period of recovery.

Furthermore, the gains during the recovery do not guarantee that the poor will benefit equally from future growth. Two conditions are necessary if this is to materialize. First, adjustment must propel African economies onto a growth path favoring labor-intensive activities. Weaknesses in even the better-performing countries (such as Ghana) suggest that vigilance is constantly needed to ensure that the policy environment is conducive to this objective. Second, African governments must take drastic steps to ensure that the populations at large have access to services, such as health and education, that will enhance human capital. Given the neglect of the past, this is a priority for the policy agenda, in both adjusting and nonadjusting countries.

A final caution is in order about the data. These continue to be weak in Africa despite the recent increase in the number of household surveys. And although the improvements have taken the debate further, with analysts teasing out key messages from noisy signals, the need for more and better household data in Africa is greater than ever.
Notes

Lionel Demery is a principal economist in the Poverty and Social Policy Department, and Lyn Squire is Director of the Policy Research Department of the World Bank. This article draws on several recent papers analyzing poverty in Africa; the authors would like to acknowledge in particular their debt to the efforts of Sudharshan Canagarajah, Harold Coulombe, Stephan Dercon, Luisa Ferreira, Christiaan Grootaert, Andrew McKay, John Mukui, John Ngwafon, and Saji Thomas, and to thank John Clark, Shanta Devarajan, Paul Glewwe, Christine Jones, Binayak Sen, and anonymous referees for their comments and support.

1. Changes in real expenditures and other measures of well-being such as health status need not always move in the same direction, especially over short periods.

2. The surveys undoubtedly advance information about African poverty, but difficulties with the data remain. Even in Côte d'Ivoire, where the data are considered generally reliable, the surveys were found to suffer from a change in sampling procedures and sampling frame in 1987, a problem that fortunately could be overcome by reweighting the data (Demery and Grootaert 1993). And in Ghana, which also fielded household surveys based on the Living Standards Measurement Survey design, changes in the questionnaire make comparisons over time difficult without applying some correction (see Coulombe and McKay 1995). Although based on an identical survey design, the Nigeria data required careful editing to make comparisons possible. Comparability was also an issue facing analysts working with the Kenyan and Tanzanian data. On the basis of the information available on these sources, we rate the quality of the surveys for Côte d'Ivoire, Ethiopia, and Ghana to be high. For these countries, intertemporal comparisons can be made with some confidence. Data for Kenya and Nigeria are placed in a middle category, while those for Tanzania are considered to be of poor quality. These data sets still provide useful information, but intertemporal comparisons must be interpreted carefully and in the light of various biases.

3. The macroeconomic policy index comprises three components—fiscal policy, monetary policy, and exchange rate policy. The score for each component is calculated as follows:

   **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 change 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 —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 real effective exchange rate of less than —10 was given a score of —2; from —10 to —5, a score of —1; from —5 to 0, a score of 0; from 0 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 real effective exchange rate and the premium score.

The change in each constituent variable is calculated as the percentage difference in the average of the variable in the year of the first survey and the preceding two years and the average of the variable in the year of the second survey and the two preceding years. The final index is calculated by combining the three components using the following weights:

\[
\text{Index} = \left( \frac{\text{Fiscal Score}}{3} + \frac{\text{Monetary Score}}{2} + \frac{\text{Exchange Rate Score}}{3} \right) \times \frac{1}{6}
\]
fiscal policy, 36.7 percent; monetary policy, 11.8 percent; and exchange rate policy, 51.5 percent. These weights were derived from regressions linking the indicators to growth. The scores and final index are as shown in table 5.

4. It should be emphasized that the evidence on what happened to rural output and incomes during this period is uncertain because of the weak data base (World Bank 1995b). And it should also be noted that not all the rural poor are indicated to be better off in 1992 compared with 1988, there being evidence of losses among some rural communities in Ghana (World Bank 1995b).

References

The word "processed" describes informally produced works that may not be commonly available through library systems.


58 The World Bank Research Observer, vol. 11, no. 1 (February 1996)


