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Floating Exchange Rates in Africa

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Abstract

The paper examines the experiences of nine African countries that have introduced floating exchange rate regimes in the 1980s. The various types of market arrangements are explored, focusing on the roles of market participants. After a review of exchange rate developments under the regimes, some related concerns with respect to urban income and employment, resource allocation, and short-term instability are analyzed. In the light of this analysis, the paper suggests some policy recommendations aimed at ensuring the success of the floating regimes.

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Summary

The paper examines the experiences of nine African countries that introduced floating exchange regimes in the 1980s. The various market arrangements are described in detail, and particular attention is focused on the roles of market participants. The description indicates that all types of market arrangements have been susceptible to official interference and to underlying pressures, resulting in a relatively heavy mortality rate for the regimes.

Following sharp depreciations at the inception of the floating regimes, nominal effective exchange rates continued to depreciate, reflecting high rates of domestic inflation. The real effective exchange rates also depreciated owing, inter alia, to fundamental imbalances prevailing in the exchange markets. The resulting depreciations have apparently contributed to substantial erosion of urban incomes and employment. Given the social and political importance of these developments, the paper argues that the countries' perseverance with floating regimes must be strengthened by protecting the poorest segments of the population and promoting a more equitable sharing of the burden of adjustment. Concern has also been expressed that the floating regimes distort the structure of final demand and compound imperfections in the financial and goods markets. Corrective action in this regard has tended, unfortunately, to involve the reintroduction of administrative controls in the exchange markets rather than measures aimed at correcting specific distortions.

Government attempts to moderate short-term instability in exchange rates have been circumscribed by practical difficulties in forecasting exchange rate trends and by inherent limitations in the range of available policy instruments. In view of this experience and of the evidence that short-term instability under the floating regimes has tended to abate, the paper suggests that interventions to influence short-term movements in the exchange rates should be abandoned. Such noninterventionism might be fostered through international contingency mechanisms aimed at minimizing reversible shortfalls in the budgeted availability of resources for the exchange markets.

The experience of the African countries suggests that, despite initial problems, floating exchange rates could work reasonably well in developing countries experiencing large economic imbalances. This does, however, require that the countries be firmly committed to supporting appropriate macroeconomic policies and that programmed balance of payments support be obtained on schedule.

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I. Introduction

Since 1982, nine African countries have adopted economic reforms permitting a relatively large volume of external transactions to be effected at floating exchange rates. Uganda was the first country to introduce such a reform in August 1982, followed by Sierra Leone (December 1982), Zaire (September 1983), Somalia (January 1985), and Zambia (October 1985). The other countries, notably The Gambia, Ghana, Guinea, and Nigeria, launched their reforms in 1986. In the same year, Sierra Leone, which had abandoned a similar reform in July 1983, reintroduced a floating exchange rate system, while Uganda ended its floating rate system. Zambia announced a temporary cessation of its dual exchange market system in January 1987; a modified auction system was reintroduced in late March, only to be abandoned formally in May.

This paper examines the experiences of the nine countries in order to provide an overview of institutional and other features of the exchange rate systems in individual countries, and to shed some light on major issues and problems that have arisen in the course of operating such systems. The paper is organized as follows: Section II provides a summary outline of the economic problems facing the countries prior to the adoption of the floating regimes and the adjustment programs that were adopted in order to cope with these problems, and presents a detailed analytical description of the exchange rate systems adopted in the different countries. The salient features of these systems, together with selected factors that affect the functioning of the exchange markets, are summarized in the annex. Section III reviews exchange rate developments under the floating regimes and examines a variety of important issues with respect to income distribution, resource allocation, domestic inflation, and short-term exchange rate instability. Section IV contains a retrospective assessment of the floating exchange rate systems in the light of the stated objectives for adopting such systems, and offers concluding remarks.

To limit the scope of the discussion, two restrictions have been placed on the paper. First, it is not intended to enter into the debate on the floating versus nonfloating of exchange rates or to examine alternative exchange rate arrangements for the countries in question. Second, recourse to empirical evidence will, of necessity, be limited to the four countries (Somalia, Uganda, Zaire, and Zambia) that had relatively long experiences with floating exchange rates.

II. The Floating Exchange Rate Systems

I. Economic background

Prior to the introduction of the floating exchange rate regimes, each of the nine African countries was experiencing economic problems the origins and features of which differed according to country. Most of the countries had undergone protracted periods of expansionary

policies (especially in the public sector), severe balance of payments problems, including mounting external debt problems, and extensive administrative controls in the markets for goods and financial assets, resulting in overvaluation of their currencies, erosion of real agricultural producer prices, and other price distortions. Recorded export earnings shrank, reflecting the combined impact of the price distortions, secular deterioration of transport, marketing, and other infrastructure and, in some cases (notably Nigeria, Zaire, and Zambia), a substantial decline in prices of leading export products.

Autonomous net capital inflows also declined, owing to escalation of debt service payments and to erosion of private sector confidence, which was prompted by the foreign debt problem and by actual or threatened nationalization during the decade ended in 1975 to "command economic heights" or to promote socialist goals. Moreover, even where some of the nationalization had been reversed (Uganda and Zaire), ownership rights remained unclear, especially for property that had changed hands several times.

On a per capita basis, real incomes trended downward and performance in most sectors deteriorated. Moreover, with debt servicing preempting a large share of available foreign exchange resources, import capacity plummeted and investment shrank. Capacity utilization in most of the import-substituting but import-intensive industries nurtured in the 1960s and early 1970s fell to low levels, in the range of 20-40 percent for most of the countries. Faced with sagging economies and rapidly rising populations, governments were pressed to assume the role of employers of last resort, and to create public enterprises in order to help compensate for the sluggish performance and other perceived inadequacies of the private sector. On the eve of the floating-based reforms, however, the public enterprises were generally inefficient and contributed significantly to the large deficits of the public sector.

To help cope with these problems, the nine African countries introduced adjustment programs with financial or technical support from the International Monetary Fund and the rest of the international community. These programs were generally aimed at reducing financial imbalances mainly through major improvements in central government and public enterprise finances and at bolstering growth and export prospects through a variety of measures directed at strengthening price signals and allocative efficiency. Such measures included the adoption of various forms of floating exchange rate systems, along with flexible adjustment of agricultural producer prices, and liberalization of domestic goods and financial markets, as well as of trade and exchange controls (except outward capital transfers). The adjustment programs attracted international support, including debt rescheduling, which was deemed essential to augment the available foreign exchange resources and provide support for the floating exchange rate.

The rationale for adopting floating exchange rate systems was the expectation that realistic market-related exchange rates would, *inter alia*, serve to:

(a) improve growth prospects, especially in the tradable goods sectors, by permitting adjustment of producer prices to remunerative levels in line with anticipated depreciation of the exchange rates, increased efficiency in the allocation of foreign exchange resources, and reduced waste inherent in the rent-seeking activities spawned by overvalued exchange rate;

(b) strengthen the officially recorded balance of payments position through reduced incentives for clandestine exports; through the beneficial impact on exports of enhanced price signals; and through improvement in the capital account, owing to diminished incentives for capital flight and the creation of a climate conducive to autonomous private capital flows;

(c) support demand management efforts; and

(d) improve overall economic policy design by "depoliticizing" exchange rate adjustments and by highlighting the need for discipline in the conduct of monetary and fiscal policy.

2. Types of exchange market arrangements

The floating exchange rate regimes reviewed cover three different types of exchange market arrangements (for a more detailed summary see the annex):

(1) The first (found in The Gambia, Zaire, and--through early 1987--Sierra Leone) are characterized by buying and selling of foreign exchange between authorized dealers, notably commercial banks, and the nonbanks. These markets, referred to for the sake of brevity as "regular markets," are typified by exchange rates that are freely negotiated between the banks and their customers, and by an indicative rate fixed in a weekly exchange market session in which the central bank may participate as a buyer or seller.

(2) Unified auction markets (Ghana, Guinea, and Zambia) provide for the auctioning of foreign exchange pooled at the central bank to individuals whose bids are channeled through the commercial banks. Ghana and Zambia initially introduced their auction markets under the marginal auction system, but subsequently shifted to a Dutch auction system, while Guinea has consistently maintained a marginal market clearing rate. ^{1/}

^{1/} Under the marginal auction system, successful bidders pay the marginal rate struck at the auction (plus the usual commissions and fees), while under the Dutch system, successful bidders are required to settle their purchases at the rate they have offered.

(3) Dual or multiple exchange markets (Nigeria, Somalia, and Uganda ^{1/}) involve an official market in which foreign exchange has generally been allocated at a more appreciated rate, and floating regimes. The arrangements for these regimes have in turn varied from direct auctions in Uganda and multilayered markets, including weekly auctions, interbank market, and bank-customer trading, in Nigeria. Moreover, in Somalia the regime has evolved from a system of free foreign exchange trading by nonbank entities through special accounts held with the banking system, to an auction market that expanded from September 1986 to encompass the auctioning of foreign exchange resources from certain donors and from a specified proportion of export proceeds. Institutional factors, such as the competitiveness of the commercial banking sector (Nigeria and Zaire) and limited manpower of the central bank (The Gambia) played a role in each country's choice of regular markets. In contrast, auction markets seem to have been the preferred choice where competition among the commercial banks was deemed inadequate. Another, and perhaps more important, consideration in opting for auction markets has been the authorities' desire to continue to play an active role in the exchange markets.

In addition to the official exchange markets just outlined, there have been other experiences, officially sanctioned or otherwise, with floating exchange rates in virtually all the nine countries. In Zaire, the regular market was preceded by a multiple market system (introduced on September 12, 1983), including an official market, an interbank market in which the central bank participated, ^{2/} and trading between authorized dealers and end-users. Prior to the adoption of this system, a variety of export promotion schemes for coffee, diamonds, gold, and other products offered scope for limited trading of foreign exchange at floating rates. In Guinea, the unified auction system was preceded by a dual system of official and auction markets (late January 1986). In Sierra Leone an attempt to initiate an exchange rate reform through a similar dual market arrangement was abandoned after about six months in early July 1983, owing largely to noncompliance with surrender requirements. All the countries had a grey, or parallel, exchange market, in which nonauthorized transactions were still being effected at freely negotiated exchange rates.

Entities participating directly in the official exchange markets include, in addition to the central bank, the government and the public enterprises, the commercial banks and other authorized dealers, and the nonbank private sector. In contrast to exchange markets in developed countries, the African countries have not generally authorized the

^{1/} From August 23, 1982 to June 15, 1984. In the ensuing period Uganda formally declared a unified auction system, but excessive interference against its normal working resulted in a de facto adjustable peg system. For purposes of this study, Uganda's experience is limited to the earlier period of a dual exchange rate regime.

^{2/} Central bank participation in the interbank market started on October 14, 1983.

participation of agencies specializing in brokerage functions (that is, the matching of buyers and sellers of foreign exchange without dealing on one's own account). A notable exception was Somalia where, as discussed below, the commercial bank essentially acted as a broker.

Central banks and the rest of the public sector: Central banks' supervisory or administrative responsibilities for the exchange markets have included the establishment of auction or "fixing" sessions. In the case of auction regimes, the administrative functions have generally been entrusted to a committee of representatives of the various market participants under the chairmanship of a high-ranking official of the central bank (except in Ghana), and a secretariat comprising selected officials of the central bank. All or part of proceeds from the major export products must be surrendered to the central banks, which have the responsibility for making sure that some foreign exchange is available for officially designated transactions and for supplying resources to the exchange markets.

Generally, the floating regimes have encouraged increased surrender of foreign exchange through established official channels, but nonsurrender--officially sanctioned or otherwise--has persisted. For example, in Zaire the mining company GECAMINES still retains 45 percent of its proceeds; a mining company in Guinea continues to export through a barter arrangement; several mining companies and a major diamond exporter in Sierra Leone forcefully resisted surrender requirements; ^{1/} and nonsurrender privileges have been used as an incentive for nontraditional exports in Uganda, Zambia, and other countries.

Under the dual market systems, foreign exchange surrender and provisioning for "essential" transactions have been effected at official exchange rates that were less depreciated in relation to those in the auction or regular markets. Over the duration of the floating regimes, some progress was nonetheless made in reducing the relative importance of extramarket activities. Thus, for example, dealings at official exchange rates were abandoned in due course in Ghana, Guinea, Nigeria, and Somalia (upon the introduction of the enhanced auction market in June 1987). Moreover, in Zaire, imports of petroleum products were redirected to the regular market in 1986, while in Zambia, imports of petroleum products, requirements of the railroad company (TAZARA) and of the port authority (TAZAMA), and payments to IATA in respect of foreign obligations of Zambia Airways were subsequently redirected to the auction market. Where direct central bank provisioning of essential transactions at official or market-related rates remained large, there was concern about the crowding out of basic needs of the private sector. To cope with this problem, some countries (The Gambia and Uganda) provided extramarket allocations to meet government or public sector requirements; alternatively, others (Guinea and Zaire) committed themselves to releasing a minimum and appropriately phased volume of

^{1/} Scarcely one third of the country's export earnings is remitted to the banking system.

foreign exchange from the central bank to the auction or regular market. The crowding out of the private sector was also alleviated through unsustainable central bank sales of foreign exchange prompted, as will be discussed later, by a desire to contain the depreciation of the rate.

The participation of public enterprises in the exchange markets has been influenced by a variety of considerations. In Zaire and Zambia the public enterprises producing the major export product, copper, were allowed to retain a substantial share of their foreign exchange earnings. This was intended to ensure that export production was not disrupted by shortages of foreign exchange. Another equally important factor--which played a role in the lenient enforcement of foreign exchange surrender requirements for a number of mining companies in Sierra Leone and Ghana--was contractual obligations toward, or demands by, foreign investors. Public enterprises handling the marketing of oil (Nigeria) and agricultural products (The Gambia, Sierra Leone, and Uganda) have in general been a tool for effective enforcement of surrender requirements, although some retention privileges have also been extended to such entities. ^{1/} Public enterprises have generally been allowed to compete with the private sector in the auction and the regular markets. The major exception was in Uganda, where the enterprises were initially required to channel their requests through the Ministry of Finance, and where the share of foreign exchange pre-empted by the Government and the public enterprises was subject to a ceiling.

Commercial banks and other authorized dealers: The roles of the commercial banks have varied according to floating regimes. Under the auction system, the banks have been used as vehicles for organizing and submitting the bids for participants from the nongovernmental sector. Other roles have included minimal buying and selling of foreign exchange on their own accounts, verification of documentary regulations, and enforcement of local currency deposits required of nonbanks in support of their bids. In the case of floating regimes based on regular markets, the primary role of the commercial banks has consisted of foreign exchange buying and selling in the fixing sessions, within the interbank market, and vis-à-vis nonbank customers. In contrast, the government-owned commercial bank in Somalia essentially played the role of an exchange broker and regularly publicized information on effective exchange rates for transactions effected through the special accounts.

Commercial banks' participation in the exchange markets has been subjected to a variety of regulations. In some countries (The Gambia, Sierra Leone, and Uganda), limits were placed on the working balances or the net foreign exchange position in order, among other things, to

^{1/} For example, during the initial experience with dual markets in Sierra Leone, the Sierra Leone Produce Marketing Board was allowed a retention rate of 50 percent because of its obligations with respect to rice imports and certain external debts.

minimize holding of excessive amounts of foreign exchange and to discourage speculation. In Zambia, a limit was set on the amount of foreign exchange released by the Central Bank to the commercial banks in order to cover specified transactions. In Sierra Leone restraints were placed on individual banks' purchases during the fixing sessions, to avoid the cornering of the market by some banks, while Nigeria used such restraint to ensure a broader access to foreign exchange by banks serving different regions of the country. The participation of nonbank authorized dealers in the exchange market has been minimal, occurring only in Zaire and Nigeria.

Nonbank private entities: The participation of nonbank private entities on the supply or the demand sides of the exchange markets under all floating regimes has been subjected to various official regulations. On the supply side, the surrender of export proceeds at market-related exchange rates has generally been compulsory. However, there are a few exceptions, including retention of earnings from nontraditional exports sometimes allowed as part of an export promotion scheme (e.g., in Somalia, Uganda, and Zambia). Moreover, Nigeria has abolished surrender by the non-oil private sector to the Central Bank; but if export proceeds are not immediately sold on the regular market, the exporters are required to open foreign currency accounts domiciled with banks in the country. On the demand side, nonbank purchases of foreign exchange have been subject to a variety of regulatory measures partly aimed at containing the effective demand for, and directing the allocation of, foreign exchange. These have included (i) prior deposit schemes to support bids for foreign exchange; (ii) requirements for prompt settlement of exchange transactions; (iii) administrative

decisions based on review of documents on individual transactions and on tax compliance; 1/ (iv) shift to Dutch auctions (Ghana, Somalia, Nigeria and Zambia); 2/ and (v) direct proscription. 3/

III. Exchange Rate Developments and Related Issues

1. Long-term developments in the exchange rates

The floating of the exchange rates jointly with the liberalization of trade and exchange controls resulted in depreciations of varying magnitudes. The depreciations (in foreign currency terms) on the first day of floating ranged from 15.5 percent in Guinea, 30 percent in Ghana, and 35 percent in The Gambia, to substantially greater magnitudes of 55-71 percent in the other six countries (Table 1). While the much lower rate of initial depreciation experienced in Guinea reflected a larger exchange rate adjustment implemented in preparation for the reform, the noticeably low rates for The Gambia and Ghana mirror, at least in part, the impact of successive adjustment programs under which the exchange rates had been devalued repeatedly and domestic inflation was reduced. The initial depreciations, which followed devaluations of larger magnitudes (except in Nigeria) during the preceding years, resulted in rates that were much closer to, but still short of, those prevailing in the parallel markets. This was to be expected, especially since a variety of controls continued to be maintained on capital movements and on various types of transactions in the external current account. The trade-weighted real effective exchange rates (REER) depreciated sharply

1/ In some of the countries, documentation has been maintained at the insistence of donors.

2/ A similar measure in Uganda, following the introduction of a unified auction market on June 15, 1984 until end-November 1984, was the requirement that successful bidders whose bid rate exceeded the market-clearing rate had to invest the balance of deposits due to them after settlement of transactions in 90-day noninterest-bearing treasury bills. It might also be noted that in Ghana, corresponding balances since the introduction of the Dutch auction have been pre-empted as budgetary revenue.

3/ For example, in Ghana most consumer goods were initially barred from the auction, but authorized under licenses permitting own-financed imports. Also, to avoid market disruption, requests for larger remittances of profits and dividends were temporarily set aside, pending elaboration of a more acceptable solution. In Guinea, cigarettes and certain alcoholic beverages were initially banned from the auction; subsequently, cigarettes were allowed. In Zaire, an extensive negative list had been used, but with the abolition of the system of own-financed imports during the launching of the floating-based reforms, a negative list of a substantially reduced number of essential items has been maintained. Moreover, Zambia temporarily suspended travel allowances in August 1986.

Table 1. Exchange Rate Depreciation for Selected Periods

(In percent; U.S. dollars per national currency)

| | Five-year period before floating | First day of floating | After floating (time span) |
|--------------|-------------------------------------|--------------------------|---------------------------------------|
| The Gambia | 50.5 | 35.3 | 25.5 (Jan. 1986-Sept. 1987) |
| Ghana | 96.9 | 29.7 | 41.9 (Sept. 1986-July 1987) |
| Guinea | 94.0 <u>1/</u> | 15.5 | 13.4 (Jan. 1986-Jan. 1987) |
| Nigeria | 51.9 | 64.3 | -2.8 <u>2/</u> (Sept. 1986-Aug. 1987) |
| Sierra Leone | 76.4 | 68.0 | 72.2 (July 1986-end-April 1987) |
| Somalia | 75.8 | 70.8 | 34.4 (Jan. 1985-July 1987) |
| Uganda | 92.5 <u>3/</u> | 68.0 | 70.7 (Aug. 1982-end-June 1984) |
| Zaire | 66.6 <u>4/</u> | 60.8 <u>5/</u> | 83.5 (Sept. 1983-Aug. 1987) |
| Zambia | 64.1 | 55.3 | 59.4 (Oct. 1985-end-1986) |

Source: International Monetary Fund.

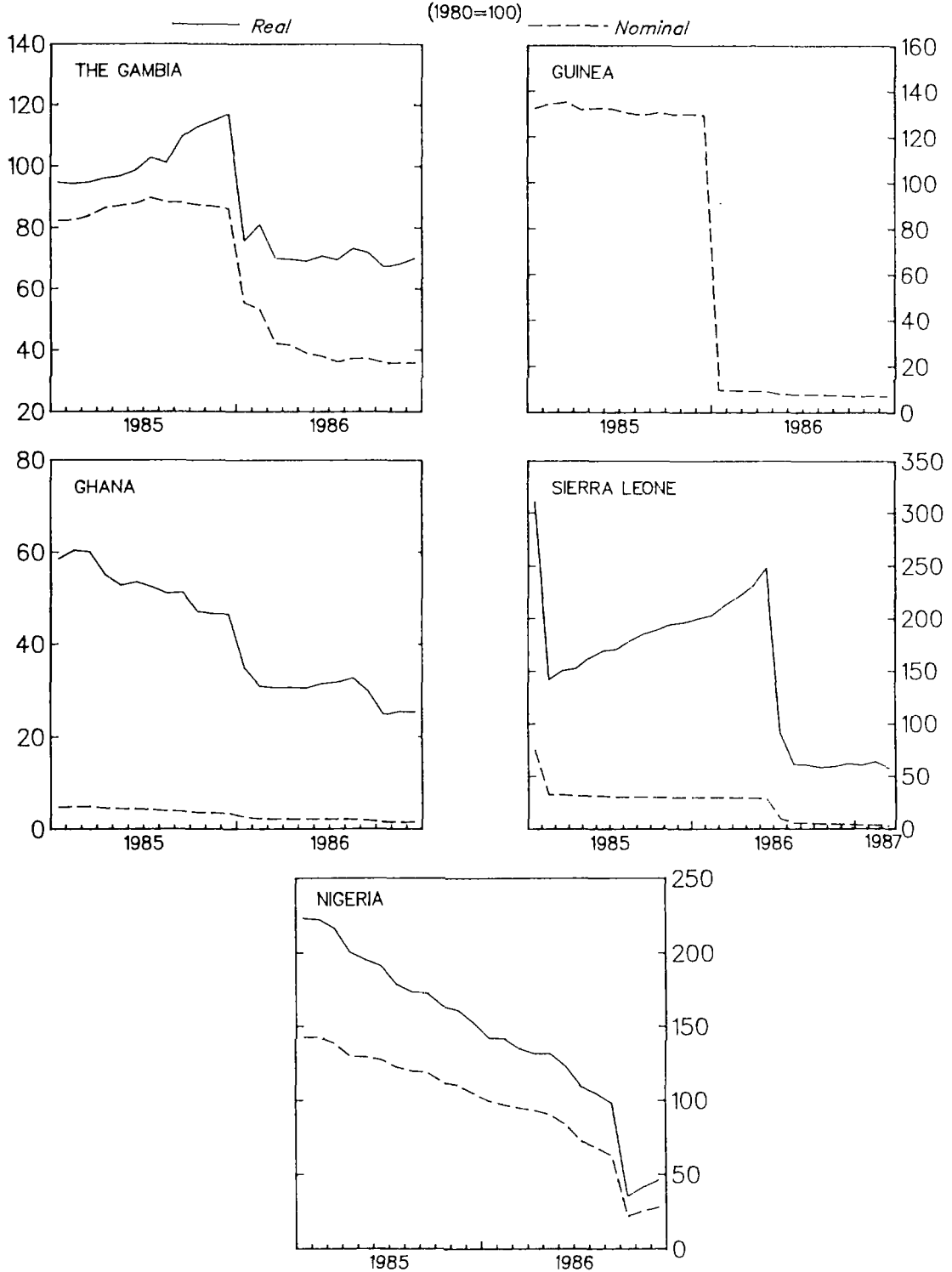
- 1/ The adjustment took place shortly before the launching of the floating regime.
2/ Appreciation.
3/ January 1980-July 1982.
4/ January 1980-August 1983.
5/ In September 1983.

in relation to levels prevailing in the 1960s and 1970s when the external position of most of the countries was much less precarious, and to depreciations registered in other African countries with adjustable peg systems (Table 2). The substantial depreciation of the REER reflects partly the pent-up demand pressures which, prior to the introduction of floating, had coexisted with networks of trade and exchange controls. In all the countries that introduced floating exchange rates, the position of these accounts had deteriorated markedly in the years preceding the reforms, owing partly to escalation in the external debt service payments and, perhaps to substantial capital flight.

Following the initial depreciations, the nominal exchange rates for virtually all countries have in general continued to trend downward (Chart 1). In The Gambia, however, the exchange rate vis-à-vis the U.S. dollar and the effective exchange rates have remained at more or less the same level since mid-1986. To some extent, the downtrend in exchange rates reflects increased involvement in the exchange markets as participants gained more familiarity with the required procedures, and as various administrative restraints initially intended to curb activity in the market were subsequently relaxed. However, a major factor by far in this underlying movement of the exchange rates was the relatively high rates of increase in domestic prices in the African countries compared with their trading partners and competitors. Because public sector deficits in these countries have been a major source of monetary growth and inflation, the trend depreciation during the period of floating has tended partly to mirror imbalances in public sector finances. Thus, for example, The Gambia, which succeeded in reducing the central government deficit significantly (Table 3), has experienced minimal depreciation since the introduction of its floating regime. At the other extreme is Sierra Leone, which managed its floating regime in a context of large and widening budgetary deficits and very high rates of monetary growth and inflation, and which experienced the steepest trend depreciation of the exchange rates.

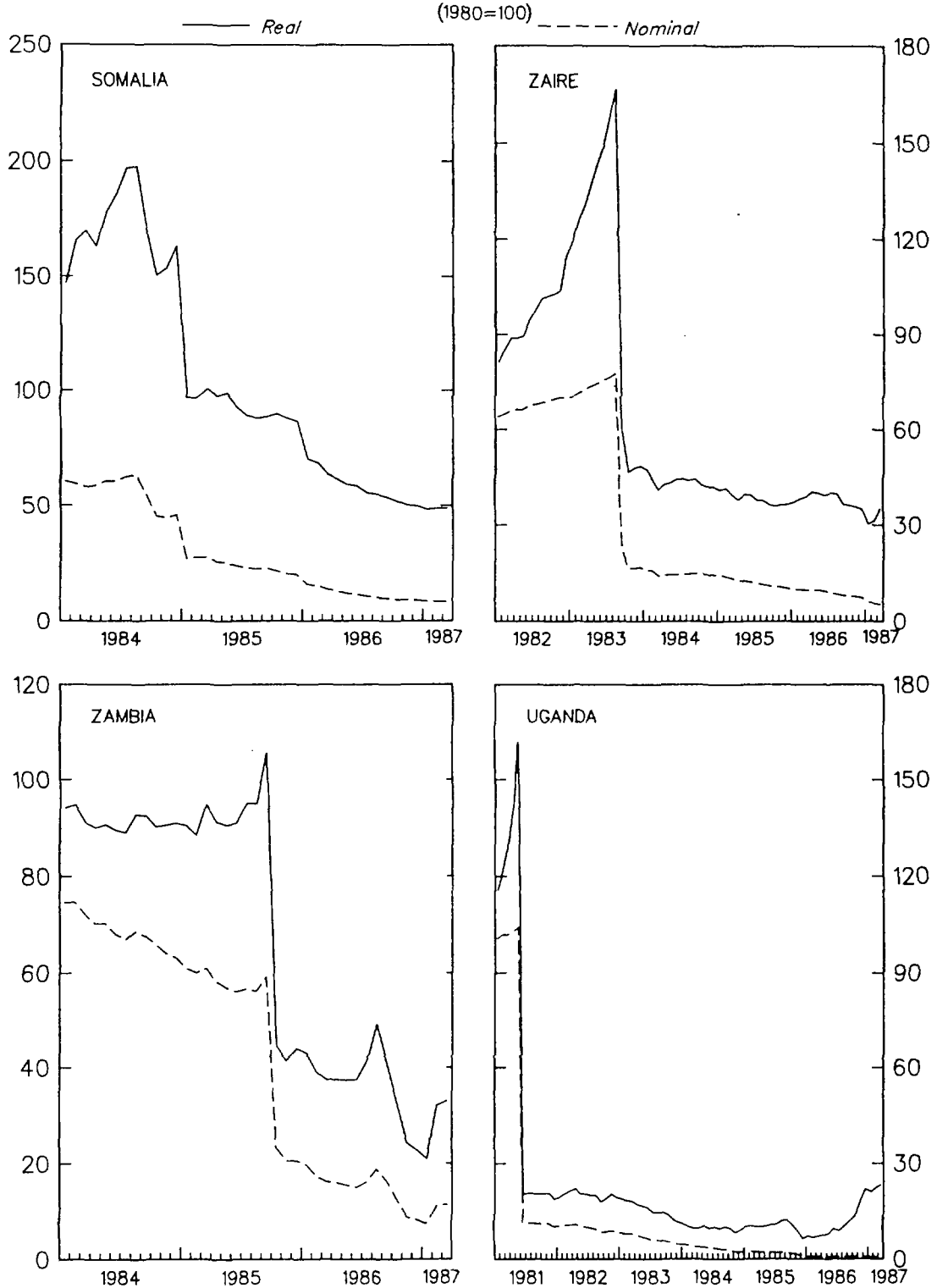
During the period of the floating regimes, the real effective exchange rates tended to depreciate further. This tendency was sometimes reinforced by country-specific developments such as increased recourse to the auction markets to settle overdue commercial obligations, or protracted and accentuated competitive bidding for foreign exchange touched off by indications of official disenchantment with the exchange markets and the attendant prospect that sooner or later the floating regime would be abandoned (e.g., Zambia in late 1986). More generally, however, the trend depreciation for the real effective exchange rates would seem to reflect the underlying disequilibria in the exchange markets, where sharply limited availability of exchange resources coexists with substantial unmet demand. In such cases, the introduction of exchange markets does not result in instantaneous equilibrium exchange rates. Moreover, market participants, including those that previously had benefited from the fixed and appreciated rates, might be expected to

CHART 1
TRADE-WEIGHTED REAL AND NOMINAL EFFECTIVE
EXCHANGE RATES, 1985-87



Source: International Monetary Fund.

CHART 1
TRADE-WEIGHTED REAL AND NOMINAL EFFECTIVE
EXCHANGE RATES, 1981-87 (concluded)



Source: International Monetary Fund.

Table 2. Evolution of Real Effective Exchange Rates, 1980-87 1/

(Index: 1980 = 100)

| | December | | | | | | | Aug. |
|---------------------------------------------------|----------|--------|---------|-------|---------|---------|-------|-------|
| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| Countries with floating regimes | | | | | | | | |
| The Gambia | 102.9 | 93.7 | 93.1 | 100.6 | 89.9 | 114.3** | 71.4 | 74.2 |
| Ghana | 133.8 | 275.4 | 337.2 | 79.8 | 54.7 | 46.2** | 26.0 | 23.8 |
| Guinea | ... | ... | ... | ... | ... | ...** | ... | ... |
| Nigeria | 106.8 | 112.0 | 120.6 | 159.2 | 193.5 | 135.2** | 34.9 | 25.0 |
| Sierra Leone | 101.9 | 122.8 | 173.0 | 170.5 | 273.8 | 196.2** | 59.2 | 209.9 |
| Somalia | 126.0 | 93.0 | 89.9 | 121.4 | 158.3** | 87.9 | 52.8 | 44.8 |
| Uganda <u>1/</u> | 114.6 | 18.9** | 18.8 | 11.5 | 9.2 | 6.7 | 23.1 | 8.5 |
| Zaire | 95.7 | 82.9 | 119.4** | 50.5 | 45.3 | 40.2 | 38.8 | 36.4 |
| Zambia | 97.9 | 104.9 | 123.4 | 99.2 | 91.3** | 47.5 | 25.0 | 44.9 |
| Selected countries with adjustable peg systems | | | | | | | | |
| Burundi | 102.9 | 119.3 | 135.5 | 117.7 | 146.8 | 127.2 | 103.4 | 102.9 |
| Kenya | 99.9 | 94.8 | 96.8 | 98.4 | 105.1 | 93.3 | 85.7 | 80.7 |
| Madagascar | 103.4 | 108.3 | 113.9 | 105.4 | 96.7 | 91.9 | 76.3 | 44.2 |
| Malawi | 97.4 | 101.8 | 96.1 | 93.6 | 102.9 | 97.9 | 83.0 | 77.6 |
| Morocco | 95.1 | 91.6 | 87.0 | 82.0 | 79.4 | 71.0 | 69.7 | 69.5 |
| Rwanda | 103.1 | 111.0 | 138.4 | 141.1 | 149.3 | 136.6 | 125.0 | 121.1 |

Source: International Monetary Fund.

1/ Figures following a double asterisk sign reflect the impact of floating. In countries with dual markets (e.g., Uganda), the figures could be misleading, since the exchange rates used in the calculations are those relating to the official market.

Table 3. Selected Indicators in Eight African Countries, 1981-87 1/

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|--------------------------------------|------------------------------|------|------|-------|-------|--------|---------------|
| | (As percent of GDP) | | | | | | |
| Central government deficit <u>2/</u> | | | | | | | |
| The Gambia | ... | ... | 10.8 | 9.7 | 13.0 | 2.2 | ... |
| Ghana | 5.8 | 4.5 | 2.7 | 1.8 | 2.3 | 0.2 | ... |
| Nigeria | 9.1 | 8.0 | 11.6 | 4.5 | 2.9 | 5.0 | ... |
| Sierra Leone | 11.5 | 13.2 | 11.6 | 7.1 | 11.5 | 14.5 | ... |
| Somalia | ... | 5.0 | 3.3 | 6.9 | 3.9 | 4.5 | ... |
| Uganda | 6.3 | 8.5 | 4.0 | 2.0 | 6.4 | ... | ... |
| Zaire | 10.5 | 11.1 | 6.1 | 9.2 | 5.9 | 11.8 | ... |
| Zambia | 14.6 | 14.6 | 7.7 | 8.2 | 30.8 | 24.1 | ... |
| | (Annual increase in percent) | | | | | | |
| Relative prices <u>3/</u> | | | | | | | |
| The Gambia | 5.8 | 8.5 | 15.8 | 25.1 | 89.8 | 52.5 | 15.9 (Sept.) |
| Ghana | 10.0 | 17.0 | 43.3 | 6.1 | 19.7 | 33.2 | 40.8 (Sept.) |
| Nigeria | 17.6 | 7.3 | 39.2 | 22.8 | 1.2 | -0.01 | -0.2 (Sept.) |
| Sierra Leone | 26.3 | 41.5 | 86.5 | 49.4 | 80.4 | 133.3 | 268.9 (Sept.) |
| Somalia | 20.1 | 34.2 | 48.4 | 83.8 | 24.0 | 30.9 | 29.3 (Sept.) |
| Uganda | 76.0 | 32.6 | 18.4 | 69.9 | 90.5 | 326.9 | 236.5 (Sept.) |
| Zaire | ... | ... | 56.5 | 37.4 | 9.5 | 35.7 | 73.0 (Sept.) |
| Zambia | 15.0 | 13.7 | 22.8 | 22.9 | 57.7 | 34.3 | 21.2 (Sept.) |
| Monetary growth <u>4/</u> | | | | | | | |
| The Gambia | 20.9 | 15.9 | 26.7 | 5.4 | 51.3 | 7.2 | 51.1 (Nov.) |
| Ghana | 51.3 | 23.3 | 40.2 | 53.6 | 46.2 | 47.9 | 61.8 (Nov.) |
| Nigeria | 5.9 | 9.6 | 14.0 | 11.6 | 9.0 | 3.6 | 4.4 (Nov.) |
| Sierra Leone | 2.6 | 56.8 | 31.6 | 28.3 | 71.1 | 88.3 | 36.9 (Nov.) |
| Somalia | 0.5 | 15.7 | 7.6 | 26.0 | 81.1 | 33.8 | 31.5 (Nov.) |
| Uganda | 87.2 | 11.4 | 41.3 | 113.6 | 125.4 | (June) | |
| Zaire | 38.0 | 72.5 | 74.8 | 34.2 | 27.3 | 58.8 | 57.1 (Sept.) |
| Zambia | 7.9 | 33.8 | 11.0 | 17.1 | 23.4 | 93.2 | 11.7 (Sept.) |
| Growth of domestic credit | | | | | | | |
| The Gambia | 3.9 | 23.7 | 26.7 | 16.0 | 23.0 | -30.6 | -35.2 (June) |
| Ghana | 16.3 | 21.6 | 72.2 | 50.2 | 59.7 | 53.1 | 54.2 (Nov.) |
| Nigeria | 47.3 | 36.0 | 28.9 | 10.2 | 4.9 | 14.1 | |
| Sierra Leone | 33.5 | 33.9 | 24.5 | 27.5 | 49.3 | 68.9 | 76.1 (Nov.) |
| Somalia | 17.1 | 10.5 | 4.7 | 91.4 | 19.8 | 20.7 | 19.2 (Nov.) |
| Uganda | 104.2 | 35.3 | 37.9 | 64.9 | 22.9 | (June) | |
| Zaire | 40.3 | 84.7 | 34.1 | 36.7 | 26.8 | 59.5 | ... |
| Zambia | 17.4 | 28.0 | 15.0 | 20.7 | 83.6 | 33.4 | 67.3 (Nov.) |

Sources: IMF, International Financial Statistics; and other data available at the IMF.

1/ The percentage changes for 1981-85 refer to year-on-year comparisons for the month of December; for 1987 the changes reflect comparable calculations for the indicated month. Reliable data were not available for Guinea.

2/ Generally on a commitment basis and inclusive of grants; in some years fiscal years do not coincide with calendar years.

3/ Prices of a given country compared with trade-weighted prices of trading partners.

4/ Broad money.

become more attuned to the underlying imbalances in the exchange markets, and to revise progressively their bids, with increasingly depreciated and realistic rates providing assured access to foreign exchange. In other words, successive adjustments in the market-clearing real effective exchange rates are more the result of strategic adaptation on the part of market participants than of changes in underlying fundamentals.

2. Issues related to the exchange rate developments

The sharp depreciations in exchange rates have raised a number of issues, including concerns of a socio-political character that have in some countries become decisive in the very survival of the floating regimes. The most important of these concerns pertain to the consequences--actual or perceived--of the floating exchange rates and the accompanying supporting policies on real incomes of certain segments of the population, resource allocations, and domestic inflation. Other concerns have centered on the impact of short-term instability in the exchange rates. Consequently, as detailed in the annex, virtually all countries have resorted to administrative and other regulations to check the effective demand for foreign exchange and thereby to limit the trend depreciation of the rate. In addition, official intervention through the use of international reserves has been characterized by intermittent periods of overselling of reserves and accentuated appreciation of the rate, followed by periods of markedly reduced official interventions (prompted by depletion of reserves) and sporadically large depreciation of the exchange rates. Moreover, four countries (Sierra Leone, Somalia, Uganda, and Zambia) eventually took the extreme action of abandoning the floating regimes, with three--Sierra Leone, Somalia, and Zambia--revaluing their rates from Le 53 to Le 25, So. Sh. 160 to So. Sh. 100, and K 15 to K 8 per U.S. dollar, respectively.

a. Income redistribution

One of the most problematic aspects of the floating regimes is the popularly held view that the resulting depreciations contribute to substantial erosion of real incomes and rising unemployment in the urban areas where the politically active segments of the population reside. This view is based on a variety of considerations. First, the floating of exchange rates results in loss of income from rent-seeking activities by individuals who previously had privileged access to the limited foreign resources, and who are likely to be concentrated in the urban areas. Second, given the openness of the African economies, the pass-through of relatively large depreciations in exchange rates might be expected to have a pronounced effect on domestic price formation (as discussed below, this is somewhat of an exaggeration). Third, adjustment measures supporting the floating regimes have almost inevitably entailed restraint in nominal wages, resulting, in the general context of the rising domestic prices and partial or no indexation

(Johnson, 1978, p. 2) ^{1/}, in declines of real wages. Fourth, given the bloated public sector payrolls, adjustment policies accompanying the floating exchange rate systems have often included steps for reducing redundant employment, particularly through the exposure of inefficient public enterprises to competitive pricing of foreign exchange.

A further factor accentuating the political sensitivity to the perceived impact of the floating regimes on urban incomes is that before the introduction of floating exchange rates, real wages in most of the countries had fallen to low levels. Young and Turner (1985, p. 133), for example, report that for Zaire "by the beginning of 1978 the real wage level was approximately 10 to 15 percent of the 1960 level." It is not likely that the situation had changed significantly prior to the introduction of a floating exchange rate system in 1983. Moreover, it has been noted that in Uganda in the late 1970s, the monthly pay of salaried workers could scarcely purchase two liters of cooking oil (Seers, 1979, p. 3); again, the situation had not changed significantly at the inception of the floating regime. In Ghana and Guinea, real wages had also been extremely low on the eve of the floating regime.

The authorities' preoccupation with the impact of the floating regimes on urban incomes was reflected in their continued insistence (for example, in Nigeria and Zambia) on the subsidization of designated consumer items or the temporary introduction of targeted subsidies (e.g., in Guinea) to help alleviate the initial surge in the cost of living. Moreover, interludes of wage restraint were interrupted by unexpectedly high wage increases in Uganda (mid-1984) and Zaire (mid-1986), while called-for retrenchment of employment has in most cases been slow. Indeed, the eventual demise of the floating regimes in Sierra Leone, Somalia, Uganda, and Zambia may be attributed largely to irresistible pressures from vested interests in the urban regions.

Given the social and political importance of the pronounced decline in urban incomes, it would seem that the countries' ability to persevere with floating exchange rates could be strengthened in some cases through: (1) limited subsidies carefully targeted toward the poorest sectors; (2) intensified efforts to bolster employment opportunities in the private sector, thus facilitating a cutback of bloated payrolls in the public sector; and (3) incentives or programs aimed at facilitating severance of employment in the public sector and redeployment of the affected employees to other sectors. Steps directed at promoting a more equitable sharing of the burden of adjustment could also play a useful

^{1/} In particular Johnson observed: that "Organized labor is generally not strong in these economies and minimum wages are not adjusted frequently to take account of changes in the price level." Explaining the weakness of labor organization in Zaire, Young and Turner (1985, p. 130) noted that the "army of new urban migrants lurked outside the factory gates." Perhaps a major exception to these generalizations on labor organization in Africa are the trade unions in the Copperbelt of Zambia (Gupta, 1974, pp. 288-316).

role. This might consist of, inter alia, accelerated reforms to ensure the progressivity of the tax system and early restructuring, closing, or privatization of inefficient public enterprises, including those which have no doubt been able to press for increased fringe benefits, subsidies, and other measures in order to shield themselves from the impact of the floating exchange rates. In some of the countries, a clear policy of not insulating private and public sector entities from the exchange-related impact on external debt service payments might also have been helpful.

b. Resource allocation

(1) The structure of final demand

A variety of concerns have been expressed in regard to the impact of the floating regimes on resource allocation. The first is that allocation of foreign exchange through market mechanisms would tend to favor imports of finished consumer items, rather than capital goods and raw materials, which are needed to support higher levels of investment and increased capacity utilization in the industrial and other sectors. In reflection of such concerns, during the initial phase of its floating regime, Zaire stipulated that commercial banks' retained earnings from merchandise exports and invisibles should be allocated 45 percent for raw materials, intermediate goods, and certain consumer goods; 30 percent for essential consumer goods and pharmaceuticals; and 25 percent for invisibles. Moreover, reflecting similar concerns, Zambia introduced a new Interim Development Plan (after abandoning the auction system) with a declared aim of "directing the country's scarce foreign exchange into the reactivation of selected high priority sectors" (Kaunda, August 1987).

Such concerns were to be expected. Prior to the floating regimes, the systems of extensive import and exchange controls had been used to favor import- and capital-intensive enterprise, and a substantial pent-up demand for imports accumulated in most of the African countries. Accordingly, the introduction of a floating exchange rate regime which, as noted before, was supported by adjustment in producer prices and a general liberalization of trade and exchange controls, might be expected to result in a relatively large increase in consumer imports. A fundamental point in this regard--which is borne out by the active government involvement in these countries' production, trade, and marketing activities, especially in the years following independence--is the view that savings and investment patterns resulting from market forces, including those under the floating regimes, have not been optimal. This is partly attributable to factors fostering a divergence between private and social time preference for consumption. The factors that may be cited--which are by no means unique to the floating regimes--include deeply entrenched inflationary expectations; low risk-adjusted rates of return on longer-term investment owing to external debt problems, and to doubts concerning the Government's ability to

persevere with difficult adjustment; and private sector uncertainty regarding its long-term status in the countries' ownership rights (Uganda and Zaire), or judicial enforceability of rights (Guinea).

Another factor that is more pertinent to the floating regimes is the possibility that increased exchange risks have tended to hamper international trade and domestic investment, especially given the virtual absence of, or, in Nigeria and Zaire, the limited facilities for covering forward transactions and for insulating businesses against exchange rate risks. In Zaire it has been observed that delayed asset revaluation has resulted in gross understatement of depreciation expenses and overstatement of profits subject to tax, that disallowance of exchange losses as a current tax deductible has had a major impact on companies with substantial foreign debt, and that investment financing has tended to be limited to equity capital and internally generated funds. ^{1/}

Even if it is accepted that the structure of imports resulting under the floating exchange rate regimes is not optimal, the appropriate policy response would not be, as was the case in many of the countries, the reintroduction of administrative controls to influence the market allocation of foreign exchange. Rather, a proper response should consist of a careful analysis of the factors contributing to the distortion in the structure of imports, and the prescription of the best (or, if necessary, second-best) market-specific or distortion-specific policies in keeping with the generalized theory of distortions and welfare (Bhagwati 1984). Thus, for example, consumption taxes might be used to cope with the politically unpalatable reappearance of "luxury" imports under the floating regimes; political and legal steps could be taken to clarify the status of, and foster investment by, the private sector; and institutional and other steps in the area of taxation could be taken to ensure that private investors can protect themselves from the risks of exchange rate fluctuations under the floating regimes.

(2) Limited market competition

Other allocative concerns during the period of the floating regimes have centered on various imperfections in the financial and goods markets, including, in particular, those hampering competitiveness. The relatively small number of authorized dealers has been especially worrisome, not only because of the inherent potential for collusive behavior but also because of a variety of other considerations. Thus, for example, in one case where one of the banks was owned by a major exporter, the authorities introduced a regulation to limit the share of foreign exchange that could be purchased by an individual bank. In some of the countries, including Nigeria, there has also been concern as to whether the authorized dealers (i.e., the commercial banks) allow a sufficiently broad access to foreign exchange

^{1/} Lessard, 1986; for similar views in connection with the industrial countries, see Artus and Young (1979, p. 683).

by individuals or regions, and corrective administrative regulations have been introduced. Again, such regulatory interventions in the exchange markets are inferior to other policies that could be clearly directed at coping with the specific distortions. In most of the countries, competition in the exchange markets could have been strengthened through policies aimed at increasing the number of nonbank foreign exchange dealers and at broadening participation in production, exporting, and importing activities. Moreover, where regional and other considerations dictate that certain individuals or firms should have access to foreign exchange, the proper approach would be to assess their overall financial performance and to determine whether they need to be subsidized.

c. Domestic inflation

Public debate on the adverse consequences of the floating regimes has tended by far to focus on the so-called vicious circles of spiraling exchange rate depreciation and domestic inflation, although experience in this regard has not been uniform. For instance, the introduction of floating regimes in Sierra Leone, which had been experiencing a high rate of inflation, ushered in a period of runaway inflation. However--with the exception of Zambia, where the rate of inflation accelerated from 13.6 percent in 1984 to over 18 percent in 1985 and 39 percent in the following year--inflationary trends in the other six countries were not substantially worse than those of the pre-floating period. In fact, in Somalia and Uganda, the rate of inflation abated noticeably in the year when the floating regime was introduced, while in The Gambia and Zaire there was a significant moderation of inflation after an initial surge.

The general abatement of inflation after the introduction of floating exchange rates is attributable to a variety of factors. First, to the extent that price controls had not been enforced fully, the impact of the overvalued exchange rate may have already been factored into domestic price formation. ^{1/} Second, insofar as prices were effectively controlled, the eventual impact of the resulting exchange rate depreciation on prices may have been realized only partly in line with administrative decisions to delay or moderate the pass-through. Third, the absence or limited use of indexation, as noted earlier, may have facilitated downward flexibility in real wages, thereby alleviating pressures for accommodative monetary expansion. Fourth, price increases for foodstuffs may have moderated during the period of the floating regimes because of a general improvement in the supply situation. Fifth, the increased return of transactions into official channels has probably been accompanied by the disappearance of risk premia on underground operations. Finally, there has been a substantial deflationary impact, at least in those countries where accommodative

^{1/} For such an argument in regard to Zaire, see Johnson (1982).

monetary expansion was resisted, reflecting the impact of the relatively large depreciations on real cash balances and real income, especially in the urban areas.

Notwithstanding the extenuating impact of such factors, vicious circles and problems of runaway inflation were obvious in those countries (Sierra Leone and Zambia) where the fiscal situation was out of control. This was, no doubt, a major factor in the early demise of these countries' floating regimes. In the other countries where the floating exchange rate regimes have also collapsed (Somalia and Uganda) or have operated on a stop-go basis (Zaire), initial success in containing fiscal imbalances and averting accommodative monetary expansion was subsequently interrupted as governments yielded to pressure for wage increases or vested interests, thereby rekindling inflationary pressures.

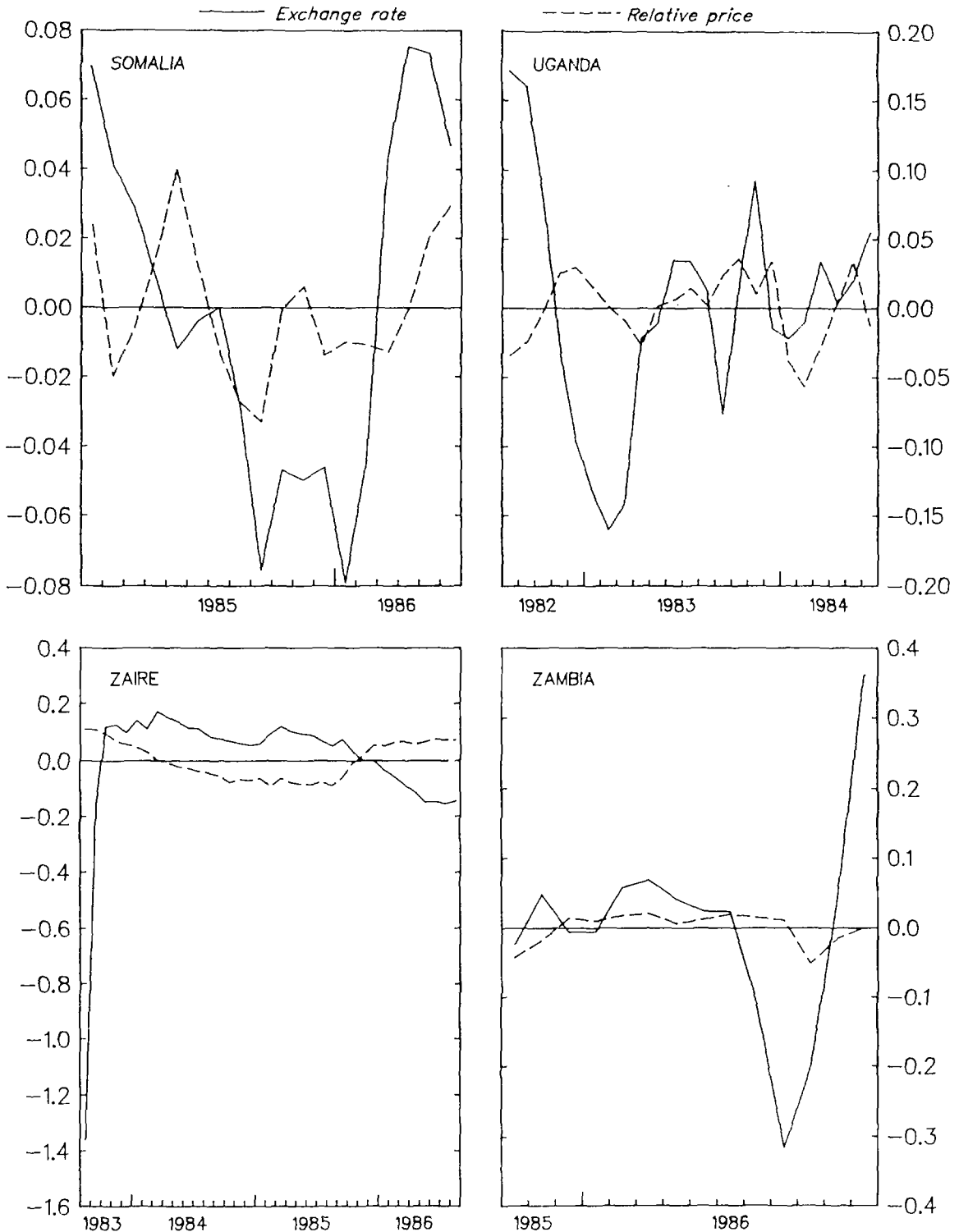
d. Short-term instability

It is sometimes argued that floating exchange rate systems in economies such as those of the African countries are prone to excessive instability. In particular, it is pointed out that, given the narrowness of most markets, real or financial shocks entail relatively large fluctuations in the exchange rates. Such instability in exchange rates creates a "noise" in price signals that contributes to misallocation of resources. Moreover, large fluctuations in exchange rates, especially in contexts of uncertainty and lack of confidence, could lead to destabilizing speculation, with the pronounced movements in the exchange rates, compounding the problems of income distribution and domestic inflation. In addition, short-term instability in exchange rates complicates macroeconomic management, including policy-related forecasting in the fiscal and monetary fields, and attempts to counter the exchange rate instability through monetary and other policies could result in the propagation of instability in other markets.

An empirical review of the patterns and degree of instability evinced by the available data might be helpful as a prologue to the consideration of the practical steps that were taken to deal with the problems of short-term instability in the exchange rates. The review points to three broad conclusions. First, the exchange rates in the African countries have exhibited substantial short-term fluctuations around the time trends. This is illustrated in Chart 2 where the logarithmic trend-corrected weekly or biweekly exchange rates (defined as local currency units per U.S. dollar) have been plotted against time. A comparison of these fluctuations with the trend-corrected changes in relative prices suggests that the short-term exchange rate fluctuations are, if at all, only minimally explained by purchasing power parity considerations.

Second, the trend-corrected movements in the exchange rates reveal intermittent and pronounced fluctuations in relation to the underlying trends, suggesting that official market interventions or speculative

CHART 2
TREND-CORRECTED FLUCTUATIONS IN THE
EXCHANGE RATE¹ AND RELATIVE PRICES²



Source: IMF, *International Financial Statistics*.

1 Logarithmic trend-corrected fluctuations in weekly or biweekly exchange rates defined as local currency units per U.S. dollar.

2 Trend-corrected fluctuations (in logarithms) of the index of domestic prices in relation to trading partners' weighted consumer prices.

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activity by private operators may have been destabilizing. In Zambia, for example, there was a pronounced overselling of reserves and exaggerated appreciation of the rate in the third quarter of 1986, followed by a sustained depreciation in the ensuing months, culminating in the abandonment of the auction system in early 1987. An unsustainably large appreciation of the rate was also experienced over periods of numerous months in Somalia during 1985 and 1986, Uganda (1982-83), and Zaire (1986).

Third, notwithstanding the pronounced instability noted above, short-term fluctuations in the exchange rates after the introduction of the floating regimes have in general been less pronounced than those experienced beforehand. This is borne out in Table 4 by two statistical measures of relative instability. The first measure (A) is essentially a variant of the coefficient of variation, and is computed as the ratio of the standard error of estimate (SEE) from the logarithmic regression of the exchange rates (in index form) against time to the logarithmic mean (\bar{X}) of the exchange rates (e). The rates used in these calculations were the average monthly exchange rates in the International Financial Statistics of the Fund. The second measure (B) reflects short-term fluctuation around a more flexibly fitted trend, along the line used by Massell (1964). 1/ Both measures point to increased exchange rate instability during the period of the floating regimes in Nigeria and Zambia, and the more sensitive statistic (B) indicates that short-term exchange rate movements under the floating systems may also have become more unstable in The Gambia and Sierra Leone. In contrast, both measures uniformly show that in Ghana, Somalia, Uganda, and Zaire, the short-term volatility of exchange rates may have diminished.

Fourth, any attempts to reduce short-term exchange rate instability through fiscal and monetary policies do not seem--contrary to what might reasonably be expected--to have resulted universally in the propagation of increased instability in the goods and financial markets during the period of the floating regimes. This is brought out in Table 5 and Charts 3 and 4 on the assumption that instability in these markets is at least partly reflected by short-term fluctuations in relative prices and in stocks of money or credit. The two measures together point to increased short-term instability in prices only in Uganda, while conflicting signals for enhanced instability are indicated for The Gambia, Sierra Leone, Nigeria, and Zambia. In contrast, Ghana, Somalia, and Zaire showed reduced short-term price stability. On the financial side, notably in the credit markets, short-term fluctuations tended to

1/ The measure (B) is defined as

$$B = \sum w_t / n,$$

where $w_t = (u_{t+1} - u_t) / \ln e_t$ and

u = residual from time trend regressions of the exchange rate indices in logarithmic form, and

n = number of observations

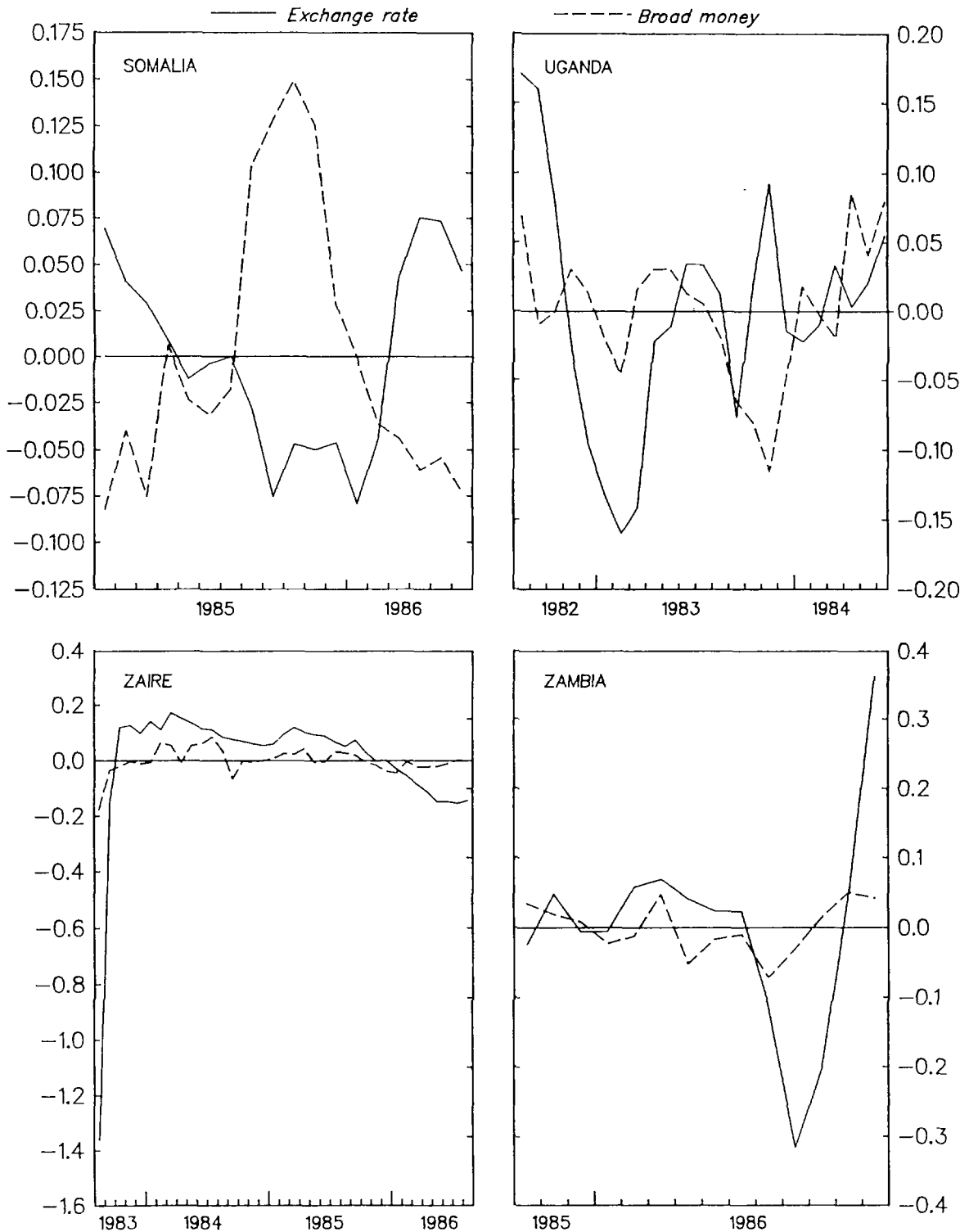
Table 4. Instability in the Exchange Rates

| | Measure A 1/ | | Measure B 1/ | |
|--------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| | Before floating | During floating | Before floating | During floating |
| U.S. dollars per unit of national currency | | | | |
| The Gambia | 0.0316 | 0.0142 | 0.0049 | 0.0051 |
| Ghana | 0.1289 | 0.0162 | 0.0127 | 0.0113 |
| Nigeria | 0.0217 | 0.0387 | 0.0031 | 0.0237 |
| Sierra Leone | 0.0571 | 0.0380 | 0.0062 | 0.0183 |
| Somalia | 0.0528 | 0.0144 | 0.0061 | 0.0045 |
| Uganda | 0.1341 | 0.0160 | 0.0151 | 0.0060 |
| Zaire | 0.0442 | 0.0149 | 0.0120 | 0.0039 |
| Zambia | 0.0349 | 0.0372 | 0.0040 | 0.0224 |
| Nominal effective exchange rate | | | | |
| The Gambia | 0.0832 | 0.1054 | 0.2657 | 0.4296 |
| Ghana | 0.4724 | 0.0768 | 1.2409 | 0.1424 |
| Nigeria | 0.1239 | 0.3764 | 0.4002 | 1.5783 |
| Sierra Leone | 0.2174 | 0.3554 | 0.5142 | 0.4807 |
| Somalia | 0.1398 | 0.1075 | 0.5793 | 0.2153 |
| Uganda | 0.3722 | 0.1400 | 1.1926 | 0.2918 |
| Zaire | 0.3777 | 0.0950 | 1.6051 | 0.1562 |
| Zambia | 0.1097 | 0.2068 | 0.3079 | 0.9795 |
| Real effective exchange rate | | | | |
| The Gambia | 0.0545 | 0.0407 | 0.3695 | 0.4859 |
| Ghana | 0.7626 | 0.0620 | 2.2340 | 0.3267 |
| Nigeria | 0.1915 | 0.3761 | 0.6905 | 1.9811 |
| Sierra Leone | 0.1908 | 0.4544 | 1.2976 | 3.7468 |
| Somalia | 0.2205 | 0.0733 | 1.1268 | 0.5810 |
| Uganda | 0.6686 | 0.2336 | 1.4565 | 0.3637 |
| Zaire | 0.2147 | 0.0644 | 1.6298 | 0.3828 |
| Zambia | 0.0706 | 0.2100 | 0.3974 | 1.4933 |

Source: International Monetary Fund.

1/ As defined in the text. Reliable data were not available for Guinea.

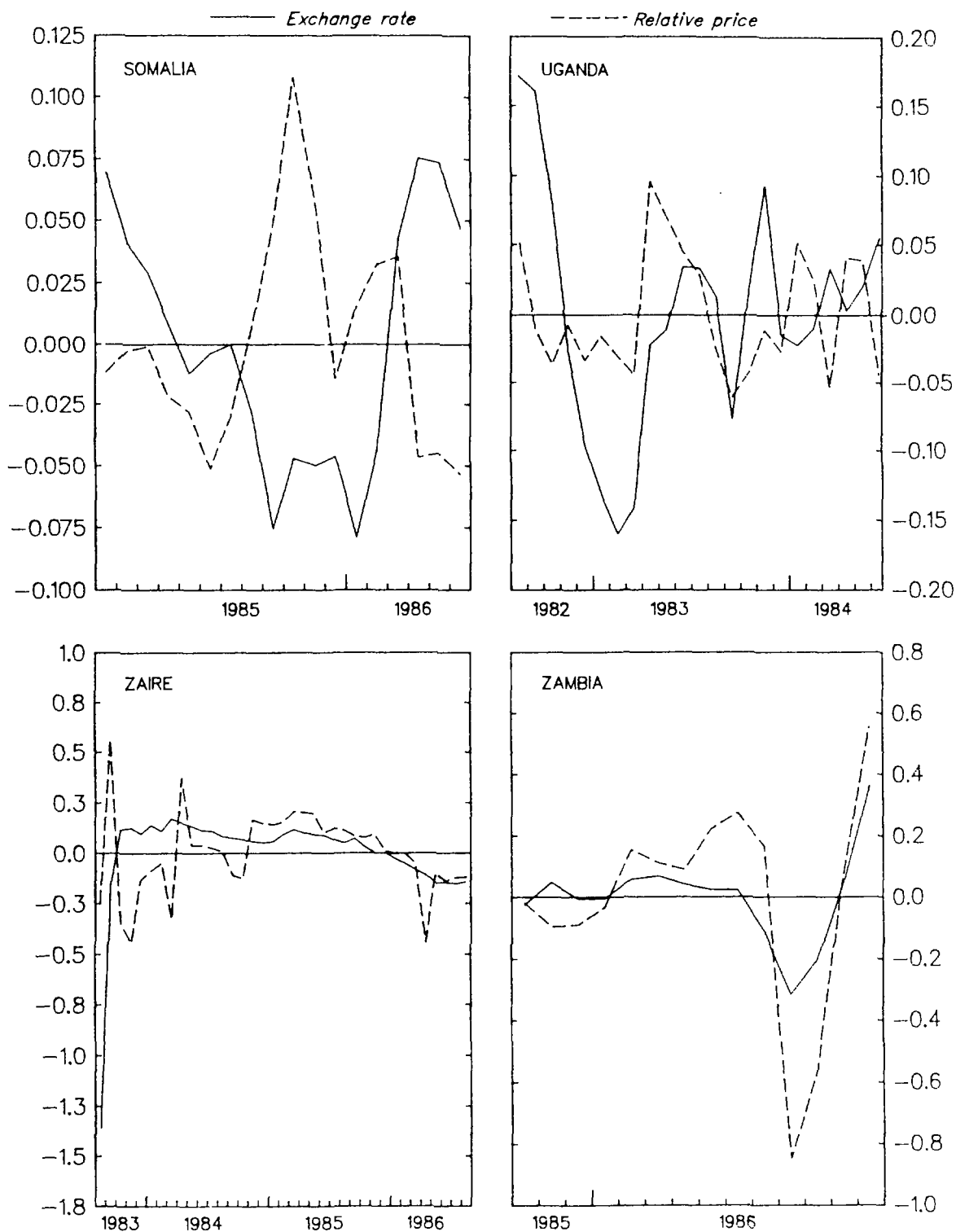
CHART 3
TREND-CORRECTED FLUCTUATIONS IN THE
EXCHANGE RATE¹ AND BROAD MONEY



Source: IMF, *International Financial Statistics*.

¹ Logarithmic trend-corrected fluctuations in weekly or biweekly exchange rates defined as local currency unit per U.S. dollar.

CHART 4
TREND-CORRECTED FLUCTUATIONS IN THE
EXCHANGE RATE¹ AND DOMESTIC CREDIT



Source: IMF, *International Financial Statistics*.
1 Logarithmic trend-corrected fluctuations in weekly or biweekly exchange rates defined as local currency units per U.S. dollar.

Table 5. Instability in Relative Prices, Domestic Credit,
and Broad Money

| | Measure A 1/ | | Measure B 2/ | |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Before floating | During floating | Before floating | During floating |
| Relative prices | | | | |
| The Gambia | 0.0165 | 0.0118 | 0.0024 | 0.0044 |
| Ghana | 0.0381 | 0.0017 | 0.0059 | 0.0015 |
| Nigeria | 0.0185 | 0.0021 | 0.0029 | 0.0010 |
| Sierra Leone | 0.0488 | 0.0036 | 0.0034 | 0.0015 |
| Somalia | 0.0249 | 0.0049 | 0.0056 | 0.0032 |
| Uganda | 0.0218 | 0.0406 | 0.0061 | 0.0074 |
| Zaire | 0.0301 | 0.0223 | 0.0097 | 0.0045 |
| Zambia | 0.0143 | 0.0058 | 0.0022 | 0.0034 |
| Domestic credit | | | | |
| The Gambia | 0.0207 | 0.0124 | 0.0087 | 0.0107 |
| Ghana | 0.0271 | 0.0110 | 0.0071 | 0.0097 |
| Nigeria | 0.0264 | 0.0023 | 0.0062 | 0.0023 |
| Sierra Leone | 0.0120 | 0.0047 | 0.0044 | 0.0050 |
| Somalia | 0.0377 | 0.0084 | 0.0106 | 0.0056 |
| Uganda | 0.0277 | 0.0207 | 0.0064 | 0.0085 |
| Zaire | 0.0134 | 0.0283 | 0.0082 | 0.0176 |
| Zambia | 0.0100 | 0.0642 | 0.0047 | 0.0523 |
| Broad money | | | | |
| The Gambia | 0.0289 | 0.0214 | 0.0115 | 0.0082 |
| Ghana | 0.0133 | 0.0078 | 0.0073 | 0.0056 |
| Nigeria | 0.0161 | 0.0036 | 0.0056 | 0.0035 |
| Sierra Leone | 0.0294 | 0.0036 | 0.0049 | 0.0033 |
| Somalia | 0.0190 | 0.0125 | 0.0064 | 0.0045 |
| Uganda | 0.0181 | 0.0240 | 0.0063 | 0.0057 |
| Zaire | 0.0160 | 0.0059 | 0.0076 | 0.0036 |
| Zambia | 0.0117 | 0.0080 | 0.0046 | 0.0078 |

Source: International Monetary Fund.

- 1/ The measure A = SEE/\bar{X}
where SEE = standard error of estimate from the regression of
the indicated variable (in index form) against time
 \bar{X} = logarithmic mean of the variable
- 2/ The measure B = $\sum w_t/n$, where the variable w_t is calculated
as noted above, using the differences in the
residuals from the time trend regression in
logarithmic form.

be more pronounced; the more sensitive measure (B), for example, showed increased instability in these markets in all countries, except Somalia and Nigeria.

e. Official market intervention

The identification of short-term instability in exchange rates and the implementation of related remedial policies have been complicated by various factors. One of these has been the technical difficulty of forecasting the underlying trend movement of the exchange rate. An essential feature of the floating exchange rate markets in the African countries has been the use of foreign exchange budgets that provide for regulated monthly or seasonal release to the markets of resources from exports of goods and services or from special balance of payments assistance. The projected availability of resources, together with their phased release to the markets, the anticipated sales of foreign exchange by the private sector, the likely stance of demand management policies, and the prospects of debt relief were indispensable elements in formulating ex ante views concerning the time path or trend of the exchange rate in the year ahead. In practice, inherent difficulties in modeling the time path of exchange rates--which in the African countries have also been compounded by data base weaknesses and the relatively large economic imbalances--have complicated the projection of exchange rate trends, thereby making it difficult to identify short-term instability.

Another factor complicating the identification of short-term exchange rate instability has been the nature of some of the disturbances, especially those surrounding shortfalls in anticipated exceptional financing. The availability of such financing, which is generally conditional on the country remaining committed to a serious program of adjustment, may be influenced by a variety of factors, including slippages in policy implementation. A decision as to whether the attendant shortfall in resource flows is of a short- or long-term character would depend upon the time needed to implement corrective policies, and (for the donors) to determine whether the policy correction is adequate. Judgmental errors with respect to timing in these respects can no doubt result in a misidentification of the instability.

A further aspect that has compounded the essentially technical task of identifying short-term movements in the exchange rate is that in some of the countries, partly for political reasons, the authorities have harbored views regarding a "permissible" range or level for nominal exchange rates. In such cases official intervention to keep the exchange rate on target has in fact constituted an attempt to influence the underlying trend.

In general, official market intervention to influence short-term movements in exchange rates has been limited. In particular, the use of official international reserves has been modest owing to the generally

low level of reserves (Table 6). Moreover, in some countries (e.g., Zaire in early 1986, and Zambia in the third quarter of 1986), central bank intervention in the markets did result in accumulation of short-term foreign liabilities.

Given the limited scope for using official international reserves, the authorities' efforts to counter short-term pressures on the exchange rates have tended to focus on steps for limiting the effective demand for foreign exchange through fiscal and monetary policies and, perhaps more commonly, through administrative actions. On balance, the use of fiscal and monetary policies to offset short-term instability in the exchange rates has proven cumbersome, partly because of the inevitable lags involved in identifying the instability, in designing and implementing corrective measures, and in obtaining the needed impact. Even so, some countries tried to use monetary policy more actively. Zaire adjusted legal reserve requirements frequently and also made an effort to deepen the treasury bill market. Other countries (The Gambia, Guinea, Sierra Leone, and Zambia) also envisaged a strengthening of the treasury bill market, with flexible use in the treasury bill rate seen as offering an opportunity for more active short-term use of monetary and credit policy during the period of the floating regime.

In general, authorities have tended to rely more on administrative controls when prompt action was needed to check effective demand for foreign exchange. However, it would seem that such controls, though initially prompted by short-term considerations, have been maintained for much longer periods, with the depreciation trend in the exchange rates providing an even stronger incentive for their retention.

IV. Assessment and Conclusion

The floating exchange rate regimes that were introduced in the African countries during periods of large financial and economic imbalances provide an instructive experience, especially in view of the divergence of professional views concerning the general advisability of such regimes in developing countries, the more so in contexts characterized by unsustainable fiscal deficits, financial repression, and administrative and other controls in the goods markets. Despite the high mortality rate of the regimes, the available experience suggests that floating exchange rate systems have a chance of working reasonably well even in developing economies beset by large economic imbalances. This is apparent where countries remained firmly committed to the implementation of supporting adjustment policies, including those in the area of demand restraint, and where programmed balance of payments support was obtained on schedule. In contrast, countries (Sierra Leone and Zambia) with large public sector deficits experienced runaway inflation and the governments' ability to continue with the floating regimes was strained. Similar strains also developed in those countries (Somalia, Uganda, and Zaire) where initial improvement in fiscal performance collapsed under the pressure of wage demands and vested

Table 6. Gross Official International Reserves, 1980-86

(In weeks of imports; end of period)

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|-----------------------|------|------|------|------|------|------|------|
| The Gambia (end-June) | ... | ... | ... | 1.7 | 2.8 | 2.7 | 0.9 |
| Ghana | 11.5 | 11.0 | 19.8 | 10.0 | 10.0 | 10.0 | 10.0 |
| Nigeria | 30.8 | 14.3 | 6.3 | 5.1 | 8.1 | 9.8 | ... |
| Sierra Leone | ... | ... | 1.6 | 2.0 | 2.0 | 2.0 | 2.8 |
| Somalia | 3.0 | 11.0 | 4.0 | 4.0 | 2.0 | 4.0 | 4.0 |
| Uganda | 2.0 | 12.0 | 1.6 | 1.6 | 12.0 | 8.0 | 5.2 |
| Zaire | ... | 4.9 | 1.4 | 4.1 | 2.7 | 3.2 | 4.4 |
| Zambia | 3.1 | 1.8 | 6.3 | 7.3 | 4.1 | ... | ... |

Source: International Monetary Fund.

interests. This would seem to lend credence to the notion of proper sequencing: that is, floating exchange rate regimes in economies such as those of the African countries have a better chance of succeeding if major efforts are made initially to reduce public sector deficits and if the improvement in the public sector finances can be sustained.

There was substantial flexibility in choosing exchange market arrangements that suited the circumstances of individual countries. All arrangements, however, have proven quite susceptible to official interference and to underlying pressures that have in some cases resulted in abandonment of the regimes.

The initial declines in the nominal exchange rates and the subsequent downtrends were to be expected in virtually all countries, in view of their high rates of domestic inflation. The reasons for the essentially parallel movements in the real effective exchange rates are less obvious, and perhaps point to the fundamental imbalances prevailing in the exchange markets. The depreciations during the period of the floating regimes resulted in a substantial decline of urban incomes, and the government's ability to cope with the attendant social and political pressures was no doubt a decisive factor in whether the regimes survived. Accordingly, to ensure the success of the floating regimes, their impact on urban incomes should be realistically assessed, and if necessary, measures for alleviating that impact should be implemented simultaneously. As argued above, these might have to include a more careful targeting of subsidies, and reforms to ensure a more equitable sharing of the burden of adjustment.

Concerns about the effect of the floating exchange rate regimes on resource allocation centered on their apparent impact on the structure of final demand and on the factors that inherently limited competition in the financial and goods markets. Related corrective action, generally through the reintroduction of administrative controls in the exchange markets, was clearly inefficient. To address the allocative concerns while ensuring efficient functioning of the exchange markets, the floating regimes would need to be supported by carefully considered measures aimed at correcting specific distortions or problems, in keeping with the generalized theory of distortions.

During the period of the floating regimes short-term instability in the exchange rates tended to abate. Even so, some countries attempted to moderate short-term fluctuations in the exchange rates through official market interventions. The efficacy of such actions was circumscribed by the practical difficulties of forecasting underlying exchange rate trends, and inherent limitations in the range of available instruments for effecting such intervention. In view of these problems it might be preferable, at least in some cases, to abandon entirely any efforts to influence short-term movements in the exchange rate. Such a noninterventionist disposition might be fostered through international contingency mechanisms aimed at minimizing reversible shortfalls in budgeted availability of resources for the exchange markets. Should

short-term official intervention be deemed indispensable, international efforts might be required to ensure that countries with floating exchange rate regimes have, at least initially, a comfortable cushion of external reserves.

The African experiences with floating regimes are relatively recent and have been abandoned in nearly one half of the countries. Partly because of this it would be premature to start looking for conclusive evidence as to whether the regimes attained their intended objectives of strengthening growth and balance of payments prospects, buttressing demand management efforts, and improving the conduct of macroeconomic policy. Nevertheless, the floating regimes permitted the exchange rates to adjust more flexibly than beforehand. This, coupled with increases in real producer prices, liberalization of markets, improvements in infrastructure, policies of demand restraint, and continued donor support, resulted in a pickup (not always sustained) of real GDP, agricultural production, and the volume of exports in The Gambia, Ghana, Sierra Leone, Somalia, Uganda, and Zambia. The financial situation for most countries also strengthened, with the abatement of domestic inflation and the restoration of normal relations with creditors owing, inter alia, to improvements in the current account and to assistance from the international community.

For those countries that are still persevering with floating regimes, the consolidation of any gains realized thus far will require continued commitment to adjustment and unfledging donor support. These countries will also need to come up with imaginative solutions to the problems that resulted in relatively high mortality rates for the regimes.

Summary of Floating Exchange Rate Systems in Africa

(As of October 15, 1987)

| | Gambia, The | Ghana | Guinea |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. Market arrangement | Regular market (Since January 20, 1986) | Unified auction market (Since February 21, 1987) | Unified weekly auction market (Since June 1, 1986) |
| II. Market participants | <p>1. Central Bank (supervises the exchange market; conducts a weekly fixing session; may deal with commercial banks in buying or selling foreign exchange).</p> <p>2. Three commercial banks (buying and selling of foreign exchange).</p> <p>3. Nonbank entities, including public enterprises (buying and selling).</p> | <p>1. Central Bank (helps manage the auction; centralizes all inward remittances of foreign exchange for phased sale through the auction and for settlements of designated transactions at the official rate).</p> <p>2. Three large commercial banks and several rather small "secondary" banks (organizing and submitting bids for customers).</p> <p>3. Nonbank entities, including parastatal entities (buying through auction and surrendering at auction-determined rate).</p> | <p>1. Central Bank (buying and selling—generally has made net sales to the auction market from surrendered receipts).</p> <p>2. Four commercial banks, including three newly established in late 1985 (organizing and submitting bids for customers, modest buying and selling on their own account).</p> <p>3. Nonbank entities, excluding Government and parastatals (buying through the auction, surrendering at auction-determined rate; some trading of retained balances in foreign exchange accounts maintained at the commercial banks).</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Gambia, The | Ghana | Guinea |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| III. "Extramarket" transactions | <p>1. Government foreign exchange requirements - subject to predetermined limits and transacted at the exchange rate fixed the previous week.</p> <p>2. Limited retention privileges for two parastatal entities.</p> | <p>The Cocoa Board is allowed to retain 2 percent of its foreign exchange earnings. The Ashanti Gold Fields Corporation, the State Gold Mining Corporation, and the Volta Authority are also allowed retention privileges that are, however, being reviewed; and some cocoa is being sold under bilateral payments agreements.</p> | <p>1. Transactions of the public sector and mining companies (effected at the rate struck in last auction).</p> <p>2. Barter transactions related to the Office des Bauxites de Kindia - a public enterprise managed by Soviet technicians.</p> |
| IV. Selected regulations and procedures | <p>1. Limits on commercial banks' working balances.</p> <p>2. Buying of foreign exchange by nonbanks is subject to documentation, for recording purposes, on the nature of transactions.</p> | <p>1. The "Dutch" auction system has been in effect since September 26, 1986.</p> <p>2. Access to foreign exchange by nonbank importers is still limited to holders of import licenses for a range of goods, excluding consumer goods, which are imported under own-financed special import licenses.</p> <p>3. Since early October 1986, successful bids have been settled immediately.</p> | <p>1. Successful bidders pay the marginal market-clearing rate.</p> <p>2. Successful bids are settled within three working days.</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Gambia, The | Ghana | Guinea |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V. Accompanying commercial, pricing, and interest rate policies | <p>1. Removal of all restrictions on external current transactions.</p> <p>2. Substantial increases in agricultural and petroleum product prices and utility tariffs, and liberalization of prices for fertilizers and rice.</p> <p>3. Interest rate flexibility, including decontrol of commercial banks' deposit and lending rates, abolishment of concessional rate for crop finance, and introduction of a treasury bill auction system.</p> | <p>1. Limited liberalization of imports.</p> <p>2. Increase in producer prices for cocoa.</p> <p>3. Officially controlled interest rates have been raised to near-positive levels.</p> | <p>1. Significant liberalization of imports.</p> <p>2. Liberalization of prices, except those of rice and petroleum products and for utility rates; the latter were nonetheless increased significantly.</p> <p>3. Announced intentions of a flexible interest rate policy based on regular adjustment of officially fixed interest rates and on internationally competitive treasury bill rates.</p> |
| VI. Experience with other market-related exchange rates | <p>Parallel market - reportedly, an exchange rate premium vis-à-vis the U.S. dollar - shrank from about 50 percent in early 1986 to virtually nil in June 1986.</p> | <p>1. Dual exchange markets, including an official market and a weekly auction system. (During September 19, 1986-February 21, 1987). Foreign exchange requirements to cover imports of petroleum and essential drugs and debt service payments on official debt contracted before January 1, 1986 and foreign exchange earnings from cocoa and residual oil were effected at the official rate. Moreover, access to foreign exchange by nonbank importers was limited to holders of import licenses for a limited range of goods (typically excluding consumer goods).</p> | <p>1. In late January 1986, a dual exchange rate system, consisting of an official market and a weekly auction market was introduced. Transactions of the public sector and mining companies were effected at more appreciated rates in the former market. Private sector requirements for specified imports and air transportation services by foreign companies were channeled through the auction market (partly supplied through net sales by the Central Bank).</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Gambia, The | Ghana | Guinea |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VII. Other selected features | <ol style="list-style-type: none"> 1. No forward exchange market. 2. Capital controls are maintained on certain outward transfers. 3. Substantial external arrears are being liquidated gradually. 4. A sizable public enterprise sector, including a number of inefficient entities, is slated for reform. | <ol style="list-style-type: none"> 1. No forward market. 2. Licenses of importers through the auction exclude most consumer goods. 3. Maintains capital controls. 4. Substantial external arrears are being paid off gradually. | <ol style="list-style-type: none"> 2. An extensive parallel market - reportedly the volume of transactions in the market shrank during the first half of 1986 and the premium on foreign exchange remained narrow. 1. No forward market. 2. Maintains capital controls. 3. Substantial external arrears are being paid off gradually. 4. An extensive public enterprise sector has been undergoing a major reform, including the closure of six former state banks and of many enterprises in the industrial and commercial sectors. Moreover, some enterprises are in a state of abeyance, pending resolution of their eventual status (privatization, restructuring, etc.). |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

Gambia, The

Ghana

Guinea

5. Attempts to permit larger amounts of profits and dividends through the auction proved disruptive and were temporarily suspended.

6. A large public enterprise sector with inefficient entities is slated for reform.

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Nigeria | Sierra Leone | Somalia |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. Market arrangement (duration) | Multiple exchange markets, including an official market, a weekly auctioning system, and an interbank market. (Since September 26, 1986). The market was unified in July 1987. | Regular market. (From June 27, 1986 to about April 1987) <u>1/</u> | Dual exchange markets (January 1985-June 14, 1987) initially including an official market and a system of free trading of foreign exchange by nonbank entities through special accounts held with the banking system. Starting September 1, 1986 a bimonthly auction system based on financial assistance provided by the World Bank was introduced to finance imports; the system was subsequently extended to incorporate assistance by the United States and Italy (in February 1987). In June 1987 the auction was enhanced to incorporate the auctioning of foreign exchange resources from the three donors, up to 50 percent of export proceeds and volunteered funds from the privately held special funds. |
| II. Market participants (their roles) | 1. Central Bank (supervises the exchange markets; receives foreign exchange from petroleum exports and official sources; and regularly auctions some of it to commercial banks). | 1. Central Bank (supervises the market; holds weekly fixing sessions). | 1. Central Bank (supervises the market; receives foreign exchange from specified partial surrender requirement and official sources and allocates it at the official rate for government requirements; may trade with the nongovernment sector through the commercial bank. |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Nigeria | Sierra Leone | Somalia |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>2. Three large commercial banks and 37 small banks (buying and selling within interbank market and vis-à-vis nonbanks).</p> <p>3. Nonbanks, including the public enterprises (buying and selling).</p> | <p>2. Four commercial banks (buying and selling within interbank market and vis-à-vis nonbanks).</p> <p>3. Nonbanks, including the public enterprises (buying and selling).</p> | <p>2. One government-owned commercial bank (essentially performs brokerage functions by bringing together buyers and sellers and by disseminating information on prevailing rates; engages in minimal buying and selling on its own account).</p> <p>3. Nonbanks, including public enterprises (buying and selling of unsurrendered and other funds maintained in export, import, and foreign exchange accounts).</p> |
| III. "Extramarket" transactions | <p>1. Service payments on public external debt contracted before September 26, 1986.</p> <p>2. Service payment on private external debt and arrears incurred with documents submitted for approval before September 26, 1986.</p> | <p>Government transactions, including foreign debt service payments—effected at the rate of the last fixing.</p> | <p>1. Payments for public debt service, government imports, official travel, embassy expenses, petroleum products, and certain operating costs of the Central Bank, and receipts surrendered to the Central Bank initially took place at the official rate. During the period of the enhanced auction system (June–September 1987) the auction rate applied to all these transactions, except petroleum, which was transacted at a rate of So. Sh. 105 per US\$1 until August 1987.</p> <p>2. Use, for individual purposes, of resources accumulated in the special accounts.</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Nigeria | Sierra Leone | Somalia |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>3. Payments and transfers to official international organizations and to Nigerian embassies (all these transactions have been settled at the official rate, which is lower than the auction and interbank rates).</p> | | |
| IV. Selected regulations and procedures | <p>1. Sales, through the auction, to individual banks are subject to predetermined limits, apparently to ensure equitable regional distribution of available foreign exchange.</p> <p>2. The interbank rates, which in principle are to fluctuate freely, subject to a dealing spread of 1 percent, are to apply to all extra-auction transactions.</p> <p>3. Buying of foreign exchange by nonbanks is subject to documentary evidence on the validity of the transactions.</p> <p>4. Surrender of petroleum receipts is mandatory.</p> | <p>1. All foreign exchange is surrendered through the commercial banking system.</p> <p>2. Commercial banks are subject to certain exposure and volume limits.</p> <p>3. Foreign exchange transactions between commercial banks and customers are settled within three working days.</p> <p>4. Buying of foreign exchange by nonbanks is subject to documentary evidence on the validity of the transaction.</p> | <p>The ratio of surrender requirement has sometimes been adjusted in line with foreign exchange needs in the official market, in order to minimize the disruptive impact of bulky official transactions on the nonbank market.</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Nigeria | Sierra Leone | Somalia |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| V. Accompanying commercial, pricing, and interest rate policies | <p>1. Trade liberalization, including elimination of import and most export licensing and reduction of prohibited imports, from 72 to 16 items.</p> <p>2. Decontrol of domestic prices.</p> <p>3. The maximum interest rate for borrowers was raised to 15 percent, and intention to further liberalize interest rate policy was announced.</p> | <p>1. Liberalization of all bona fide current transactions.</p> <p>2. Substantial increases in producer prices and utility rates and decontrol of consumer prices for commodities.</p> <p>3. Flexible interest rate policy, involving freeing of deposit and lending rates and active use of a treasury bill rate.</p> | <p>1. Substantial trade liberalization.</p> <p>2. Decontrol of producer and consumer prices and adjustment of prices of public enterprises to cover costs and provide for "suitable" rate of return.</p> <p>3. Repeated increases in officially administered interest rates to new positive levels.</p> |
| VI. Experience with other market-related exchange rates | <p>A parallel market.</p> | <p>1. A dual exchange market, including an official market and an auction system during December 17, 1982-July 1, 1983. <u>2/</u></p> <p>2. A robust parallel market in which the premium on foreign exchange has shrunk markedly in recent months because of substantial depreciation of the rate in the regular market.</p> | <p>1. A "commercial" market (until October 1986) covering tourist receipts, overseas travel, some imports under aid-financed commodity import programs.</p> <p>2. A parallel market.</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Nigeria | Sierra Leone | Somalia |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VII. Other selected features | <ol style="list-style-type: none"> 1. Foreign exchange dealers accept forward contracts for approved transactions and maturity. 2. All external arrears were expected to be eliminated by the end of 1986. 3. Remittances of profits and dividends of bona fide current nature are approved. 4. Capital outflows are approved, provided they do not destabilize the exchange market. | <ol style="list-style-type: none"> 1. No forward market. 2. Capital controls are maintained on outward transfers. 3. Substantial external arrears are being paid off gradually. 4. A sizable public enterprise sector, including a number of inefficient entities, is slated for reform. | <ol style="list-style-type: none"> 1. No forward market. 2. Controls are maintained on outward capital transfers and on some current transactions. 3. External arrears are being paid off gradually. 4. A large public enterprise sector, including many inefficient entities, is slated for reform. |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Uganda | Zaire | Zambia |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. Market arrangement (duration) | Dual exchange markets, including an official market and a weekly auctioning system. (August 23, 1982-June 15, 1984) | Regular market. (Since February 28, 1985) | Unified weekly auction (October 4, 1985-January 1987) |
| II. Market participants (their roles) | <p>1. Central Bank (managed the auction market; centralized foreign exchange receipts from designated traditional exports and other sources for settlement of official payments and designated essential imports—all at the official rate—and for weekly auction to nonbanks).</p> <p>2. Six commercial banks (organizing and submitting bids for customers, and minor buying and selling on their own accounts).</p> <p>3. Nonbanks, including public enterprises and—until July 1983—the Government (buying and selling).</p> | <p>1. Central Bank (supervises the markets; intervenes directly through selling and buying in the interbank market and fixing sessions, and, indirectly, through use of additional instruments of monetary policy, to influence the exchange rate; receives foreign exchange from designated sources for settlement—at last fixed rate—of specified official transactions and for on-sale in the interbank market).</p> <p>2. Ten commercial banks and other authorized dealers (buying and selling).</p> <p>3. Nonbanks, including parastatal entities (buying and selling).</p> | <p>1. Central Bank (manages the auction market; centralizes foreign exchange subject to surrender requirement and that from official sources for phased sale through auction and for settlement of designated transactions at the last auction price).</p> <p>2. Six commercial banks (organizing and submitting bids for customers; minimal trading on their own account).</p> <p>3. Nonbanks, including parastatal entities (buying through auction—and surrendering at auction-determined rates; some trading of unsurrendered balances).</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Uganda | Zaire | Zambia |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| III. "Extramarket" transactions | <p>1. Central bank transactions effected at the official rate.</p> <p>2. Minor sales of foreign exchange—at the last fixed auction rate—by commercial banks to customers.</p> <p>3. Allocations to Government of predetermined proportions of foreign exchange supplied by the Central Bank to the auction market.</p> | <p>1. Retention by the mining company GECAMINES of 45 percent of its export proceeds.</p> <p>2. Official transactions, including foreign debt service payments, settled by the Central Bank at the last fixed rate.</p> | <p>1. Requirement of the mining company (ZCCM), the Government, and allocations to commercial banks to meet transactions subject to exchange controls; these are settled by the Central Bank at the last auction rate).</p> <p>2. Authorized nonsurrender of proceeds from nontraditional exports.</p> |
| IV. Selected regulations and procedures | <p>1. Limits on working balances of commercial banks.</p> <p>2. Prior announcement of minimum amounts to be auctioned.</p> | <p>1. Participation in the interbank market is largely subject to exchange market practices as defined in the Charter of the International Association of Exchange Dealers.</p> <p>2. For transactions between authorized dealers and between dealers and their customers, the exchange rates are negotiated freely.</p> | <p>1. On August 2, 1986, there was a change from the marginal to the Dutch auction system.</p> <p>2. Successful bids are settled within three working days.</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Uganda | Zaire | Zambia |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>3. A reserve price option, used rarely.</p> <p>4. Marginal auction system was applied in principle.</p> <p>5. Successful bids were settled within three working days.</p> <p>6. Continued access to auction market by private nonbanks was subject to documentation in due course on validity of transactions.</p> | <p>3. Limits are set on net foreign assets of commercial banks.</p> | <p>3. Importers are required to provide documentary proof of importation of goods.</p> |
| V. Accompanying commercial, pricing, and interest rate policies | <p>1. Substantial trade liberalization.</p> <p>2. Major increases in producer prices and utility rates, and liberalization of ex-factory prices of various parastatal entities.</p> <p>3. Deposit and lending interest rates were raised, but remained negative in real terms.</p> | <p>1. Substantial liberalization of current transactions.</p> <p>2. Major increase in producer prices, utility rates, and prices of petroleum products, and a general decontrol of other consumer prices.</p> <p>3. Flexible interest rate policy, including a general freeing of deposit and lending rates and active use of the treasury bill rate.</p> | <p>1. Substantial trade liberalization.</p> <p>2. Major increases in producer prices, utility rates, prices of petroleum products.</p> <p>3. A more flexible interest rate, including announced intention to decontrol interest rates and active use of the treasury bill rate.</p> |

Summary of Floating Exchange Rate Systems in Africa (continued)

(As of October 15, 1987)

| | Uganda | Zaire | Zambia |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VI. Experience with other market-related exchange rates | <p>1. A unified auction market, introduced on June 15, 1984, was followed by increased intervention in the market to limit the appreciation of the rate. On February 19, 1986, the auction system was abandoned.</p> <p>2. An extensive parallel market, in which foreign exchange had been trading at a large premium, shrank during the period of the dual market, and the premium also declined; these trends have apparently been reversed since the abandonment of auctioning.</p> | <p>1. A system of multiple exchange markets (September 12, 1983-February 28, 1985). <u>3/</u></p> <p>2. Prior to the exchange rate reform in September 1983, various practices led to rates that were much more depreciated than the official rate. These included authorization for <u>own-financed imports (sans achat de devises)</u>, and retention and other privileges for certain exporters, especially those of diamonds, gold, and coffee.</p> <p>3. An active parallel market, dating back to the 1960s. After narrowing markedly following the 1967 economic reforms, the premium on foreign exchange in the market widened and persisted; more recently, the premium has reportedly shrunk again.</p> | <p>1. A dual auction market resumed in late March 1987 until May 1, 1987 when the Government formally announced a cancellation of the auction and the introduction of an exchange rate for the kwacha fixed at K 8 = US\$1. Over the period of the resumed auction, there was a two-tier system comprising, according to the authorities, an auction-determined exchange rate and an official rate allowed to move within a range of K 9.0-12.5 with periodic realignment leading to eventual convergence of the official and auction rates.</p> <p>2. A parallel market.</p> |

Summary of Floating Exchange Rate Systems in Africa (concluded)

(As of October 15, 1987)

| | Uganda | Zaire | Zambia |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VII. Other selected features | <ol style="list-style-type: none"> 1. No forward exchange market. 2. Capital transfers and invisible payments remained controlled. 3. Substantial external arrears are being paid off gradually. 4. An extensive public enterprise sector with numerous inefficient enterprises awaits reform. | <ol style="list-style-type: none"> 1. Forward transactions are permitted, subject to limitations on, among other things, types of transactions and their maturity. 2. Outward capital transfers are controlled. 3. Some external arrears being paid off gradually. 4. A sizable public enterprise sector undergoing reform. | <ol style="list-style-type: none"> 1. No forward market. 2. Controls are maintained on outward capital transfers and on some current transactions. 3. Substantial external arrears being paid off gradually. 4. An extensive public enterprise sector, including numerous inefficient enterprises, is to be reformed. |

Source: International Monetary Fund.

1/ Since then there has been substantial official interference in the market resulting in a marked appreciation of the rate from Le 53 per U.S. dollar in April 1987 to Le 23 per U.S. dollar in July; subsequently, the rate was kept unchanged.

2/ The ill-fated dual exchange market arrangement provided for poorly enforced partial surrender through the Central Bank and through the commercial banks. The foreign exchange surrendered to the Central Bank was to be used for imports of petroleum products, flour and wheat, education materials, and loan- and grant-financed imports, and servicing of foreign debt and arrears. A part of the foreign exchange was also to be auctioned to commercial banks, the Government, and certain public enterprises. The commercial banks bid on behalf of customers, who, besides having the requisite documents, had to make a deposit or have a bank line of credit equal to their bids. The banks were subject to limits on working balances. Largely unfulfilled intentions were also announced with respect to the liberalization of external transactions.

3/ Introduced in two phases: the first (September 12, 1983-October 14, 1983) included an official market in which receipts from designated sources were used by the Central Bank for settlement of external public debt and other specified payments. These transactions were effected at a less depreciated rate maintained within a margin of 10 percent from the "market rate" (i.e., the average rate which banks intended to apply the following week). Foreign exchange trading among banks and between banks and their customers was at freely negotiated rates. During the second phase (October 14, 1983-February 28, 1985), an interbank market was launched, and weekly fixing sessions provided an avenue for the Central Bank to intervene through buying and selling. Meanwhile, the spread for the official rate was reduced to 5 percent of the free market (fixing) rate.

APPENDIX

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