Working Paper

INTERNATIONAL MONETARY FUND

IMF WORKING PAPER

WP/93/36

INTERNATIONAL MONETARY FUND

Policy Development and Review Department

Experience With Floating Interbank Exchange Rate Systems in Five Developing Economies

Prepared by Vicente Galbis 1/

April 1993

Abstract

This paper reviews the experience with floating interbank exchange rate systems in five developing countries--The Gambia, Guyana, Jamaica, Nigeria and Sri Lanka--and draws some conclusions about the stability and efficiency of these systems. The experience of these countries illustrates both the difficulties and the advantages of interbank exchange rate markets. The main conclusion is that these markets can operate relatively well with a minimum banking infrastructure, provided that the authorities remove legal and institutional impediments to the free operation of these markets including, in particular, exchange restrictions. Any residual restrictions that may remain will likely give rise to the continued existence of parallel markets.

JEL Classification Numbers:

F31, O16, O57

1/ I would like to thank Anupam Basu, Evangelos A. Calamitsis, Maria Carkovic, J.R. Dodsworth, Hans-Michael Flickenschild, Manuel Guitián, E. van der Mensbrugghe, Marjorie B. Rose, Mohammad Shadman, and Brian C. Stuart for their valuable comments and additional information. However, the responsibility for any remaining errors rests solely with the author.

Contents

Summary

This paper examines the experiences under floating interbank exchange rate systems of five developing countries--The Gambia, Guyana, Jamaica, Nigeria, and Sri Lanka--which employed a variety of institutional and regulatory arrangements in the interbank market. It describes their prefloat economic conditions and exchange arrangements and the factors affecting their choice of an interbank system. The role of financial institutions and the official regulatory framework in making the transition to the interbank exchange rate system is also discussed, along with the macroeconomic adjustment framework and the exchange and trade system reforms adopted. The paper assesses the performance of the interbank floats in terms of both exchange market and macroeconomic developments.

All five countries introduced an interbank floating exchange system to provide a more efficient, noninterventionist mechanism for determining the official rate and allocating scarce foreign exchange resources. However, some phased in the new system, removed exchange and trade restrictions, and liberalized interest rates more gradually than did others; in several countries, too, remaining regulations constrained banks and other authorized exchange dealers in negotiating the exchange rate between themselves and the public. The interbank floats and the accompanying exchange and trade liberalizations generally resulted in convergence between the official and parallel exchange rates; an appropriate flexibility and movement of nominal and real exchange rates; and spreads between the buying and selling rates that stayed within reasonable limits. Economic gains from the floating interbank systems also appear to have accrued more visibly to the countries that moved early and decisively to abandon previous restrictions--The Gambia, Guyana, Jamaica, and Sri Lanka.

The paper concludes that interbank exchange rate markets can operate relatively well with minimal banking infrastructure (for example, The Gambia and Guyana); licensing of nonbank foreign exchange dealers can provide additional market competition. However, the paper argues, these markets can operate well only if the authorities remove trade barriers and exchange restrictions on both current international transactions and capital transfers, liberalize interest rates, and introduce prudential regulations and supervision over exchange transactions. Segmented exchange markets may persist if regulations prevent the free flow of resources across market participants (as shown by the experience of Nigeria with a composite exchange rate system--an official auction and an interbank market). Moreover, any residual official restrictions that remain are likely to foster the continued existence of parallel, informal markets. Finally, the paper concludes, floating exchange rates and liberalized exchange and trade systems--although they are helpful in balancing the external sector--are not substitutes for the sound macroeconomic policies.

This page intentionally left blank

I. Introduction

In the 1980s some developing countries began to introduce their own market-determined floating exchange rate systems. Two forms of floating arrangements were adopted, the interbank and auction systems. 1/ The majority of the countries that introduced a floating exchange rate opted for the interbank system consisting of an exchange market operated by commercial banks and licensed foreign exchange dealers. Other countries, largely due to different institutional constraints, adopted an official auction system under which foreign exchange was surrendered to the central bank, which then auctioned the exchange to the commercial banks and/or the nonfinancial sector. This paper examines the experience under floating interbank exchange rate systems in five countries--The Gambia, Guyana, Jamaica, Nigeria and Sri Lanka--which were chosen mainly because of the variety of their experience in the setting up of the institutional and regulatory framework in the interbank market. 2/

The paper is organized as follows. Section II describes the initial economic conditions and the exchange arrangements of the five countries prior to the adoption of the floating exchange rate systems and the factors affecting the choice of an interbank system. The role of both financial institutions and the official regulatory framework in making the transition to the interbank exchange systems is also discussed. Section III reviews the macroeconomic adjustment framework and the exchange and trade system reforms adopted in the five countries. The performance of the interbank floats in terms of both exchange market and macroeconomic developments is examined in Section IV. The main conclusions are contained in the final section.

1/ For a general overview of these systems, see Peter J. Quirk, Benedicte Vibe Christensen, Kyung-Mo Huh, and Toshihiko Sasaki, Floating Exchange Rates in Developing Countries - Experience with Auction and Interbank Markets, IMF Occasional Paper No. 53 (May 1987).
2/ In all five cases the authorities availed themselves of technical assistance from the Fund. The exchange systems of The Gambia, Guyana, Jamaica and Nigeria are currently classified by the Fund as independently floating, whereas that of Sri Lanka is classified as other managed floating. Many other developing countries have adopted floating exchange rates in recent years.

II. Initial Conditions and Introduction of the Floats

1. Exchange rate systems and economic conditions before the float

Prior to the adoption of floating interbank exchange rate systems, each of the five countries surveyed had been operating under a pegged exchange rate arrangement. The currencies of Guyana, Jamaica, Nigeria and Sri Lanka were pegged to the U.S. dollar, whereas the Gambian dalasi was pegged to the UK pound sterling. In the pre-float period, the official exchange rates of the countries pegged to the dollar were depreciated on several occasions; and The Gambia's authorities accepted the nominal effective depreciation that was taking place because of the tendency of the U.K. pound to fall in world markets (Table 1). 1/ In deciding to depreciate the rate, there are indications that the authorities were trying to address a variety of immediate concerns or objectives, including protecting external competitiveness in the face of substantial domestic inflation; narrowing the differential between the official and the parallel market rates to prevent the diversion of foreign exchange to the parallel market; and reversing the prolonged deterioration in the foreign reserve position. Nevertheless, owing to the prevailing exchange and trade restrictions and expansionary financial policies, these objectives were generally not achieved.

In all cases, in response to the scarcity of foreign exchange in the official market, the authorities had tightened exchange and trade restrictions. Surrender requirements were applied to all exports, and comprehensive restrictions were imposed on capital outflows. In addition, there were exchange restrictions on current transactions (typically for services payments); and official foreign exchange resources were allocated for imports through cumbersome licensing and other nonprice administrative procedures. In The Gambia, for instance, the trade system included comprehensive import licensing, with specific import restrictions on product groups and countries, as well as tariffs that were high and discriminatory. In Jamaica there was an informal rationing of documented imports and a fairly comprehensive system of exchange controls on current payments and capital transfers. Similarly, in Guyana and Nigeria, the trade system included import prohibitions and a discriminatory import licensing system.

In most cases, such restrictions had various deleterious effects, including, inter alia, the diversion of transactions to the parallel market; a persistent weakening of export performance and the overall balance of

---

1/ While in all cases the authorities were particularly concerned about the political repercussions of depreciation, in the case of The Gambia, given neighboring Senegal's fixed link to the French franc and the importance of border trade, the authorities also felt that a fixed peg to a major convertible currency was crucial to maintaining confidence in the domestic currency and to avoiding uncertainty and disruptions in external transactions.

Table 1. Changes in the Official Exchange Rate

(In local currency per U.S. dollar)

Country	Date of introduction of float (t year)	Currency peg before float	Rate of exchange rate depreciation (+) or appreciation (-) (Based on end-year exchange rates in local currency per U.S. dollar)			
			t-3	t-2	t-1	t
			(Percentage change)			
1. The Gambia	Jan. 20, 1986	UK£ 1/	11.3	56.8	80.1	114.6
2. Guyana	March 13, 1990	US$	127.3	--	230.0	36.4
3. Jamaica	Sept. 17, 1990	US$	0.4	-0.4	18.2	24.0
4a Nigeria	Sept. 26, 1986	US$	11.7	7.9	23.8	231.7
4b Nigeria	Jan. 9, 1989	n.a. 2/	231.7	24.8	29.3	42.0
5. Sri Lanka	Aug. 20, 1990	US$	7.9	7.4	21.1	0.6

Sources: IMF, International Financial Statistics; and staff documents.

1/ The depreciation of the Gambian dalasi with respect to the U.S. dollar in the years 1983-85 reflects the depreciation of the U.K. pound with respect to the dollar. During this period the rate of the dalasi with respect to the U.K. pound was not altered.

2/ The system was changed from one float to another, as described in the appendix.

payments; shortages of inputs and underutilization of capacity in import-dependent productive sectors; and the worsening of inflationary pressures and relative price distortions. For example, the exchange markets in the five countries were characterized de facto by a high degree of segmentation and differential exchange rates (Table 2). 1/ In The Gambia, it was difficult for the authorities to prevent the increasing diversion of foreign exchange resources into the parallel market. In Guyana, substantial inflationary pressures and a large premium in the parallel exchange rate market penalized exports and led to significant relative price distortions between different import uses. Despite the tight restrictions on current and capital transactions, there was substantial capital flight out of Jamaica. Nigeria's official exchange rate for the naira became increasingly overvalued on account of rapid domestic inflation, and the balance of payments came under severe pressure. In the case of Sri Lanka, too, the authorities were faced with prolonged balance of payments pressures. In all cases, the move to the floating system was preceded by adverse developments in the current account, and a virtual exhaustion of official foreign exchange reserves (Table 3). 2/

In all the sample countries, the pre-float period was marked by expansionary financial policies. This was reflected in the high ratios of fiscal deficits to GDP, and in the rapid growth rates of domestic credit (particularly to the public sector) and of broad money. Real interest rates were generally negative (except in Jamaica) because of financial repression policies, which provided incentives for capital outflows. At the same time, the use of nonmarket, direct instruments of monetary policy produced distortions in the structure of interest rates, and in the allocation of credit, which adversely affected the competitiveness of the banking system, and led to weak savings and unproductive investments.

The data show that in the pre-float period, there was both substantial inflation and a generally weak real growth performance (Table 4). Real export growth was generally faltering and, although data are only sketchy, there was also a tendency toward limited growth in import volume, a factor that probably contributed to the weak growth performance.

1/ Table 2 shows the evolution of the main official and parallel market rates and of the premium in the parallel market. It is based on exchange rates for the U.S. dollar as reported in IFS for the main official rate and as reported by International Currency Analysis, Inc. for the street exchange rate. In some cases, e.g., The Gambia, the street parallel market rate is not an appropriate indicator of the market behavior. Also, it should be noted that in some countries, e.g., Nigeria, for some periods, the existence of several legal exchange rates besides the parallel rate complicates the picture substantially. Unfortunately, it is difficult to obtain data for all the various rates. For this reason the data should be interpreted with caution.

2/ Accumulation of arrears on external debt payments was also pervasive.

Table 2. Parallel Exchange Market Developments

(Local Currency Units per U.S. Dollar)

Country	Pre-float period t-3	t-2	t-1	Year of float t	Post-float period t+1	t+2	t+3
1. The Gambia				(1986)			
Official rate	2.757	4.323	3.461	7.426	6.426	6.659	8.315
Parallel rate	...	...	3.704	8.333	8.333	9.091	7.143
Premium in parallel market 1/	...	...	7.0	12.2	29.4	36.5	-14.1
2. Guyana				(1990)			
Official rate	10.3	10.0	33.0	45.0	122.0	126.0 3/	...
Parallel rate	51.0	53.0	62.0	105.0	168.0	175.0 3/	...
Premium in parallel market 2/	395.1	430.0	53.2	133.3	37.7	38.9 3/	...
3. Jamaica				(1990)			
Official rate	5.500	5.480	6.480	8.038	21.493	22.173 4/	...
Parallel rate	6.500	6.700	8.300	10.200	23.000	24.000 4/	...
Premium in parallel market	18.2	22.3	28.1	26.9	7.0	8.2 4/	...
4a. Nigeria				(1986)			
Official rate	0.749	0.808	1.000	3.317	4.141	5.353	7.651
Parallel rate	...	...	3.704	7.692	5.000	10.000	9.091
Premium in parallel market	...	...	270.4	131.9	20.7	86.8	18.8
4b. Nigeria				(1989)			
Official rate	3.317	4.141	5.353	7.651	9.001	9.862	19.380 6/
Parallel rate	7.692	5.000	10.000	9.091	11.110	12.500	28.10 6/
Premium in parallel market 5/	131.9	20.7	86.8	18.8	23.4	26.7	45.0 6/
5. Sri Lanka				(1990)			
Official rate	30.763	33.033	40.000	40.240	42.580	44.630 3/	...
Parallel rate	31.50	45.00	48.00	50.00	43.00	52.00 3/	...
Premium in parallel market	2.4	36.2	20.0	24.3	1.0	16.5 3/7/	...

Sources: IMF, International Financial Statistics; 1988-1989 World Currency Yearbook, by Philip P. Cowitt; and Free or Black Market Rates of Payments and/or Transfers Abroad, monthly sheet, International Currency Analysis, Inc. (New York).

1/ An alternative series, estimated by the Central Bank based on the Central Bank's fixing rate versus the parallel rate both in dalasis per pound sterling, is as follows: 70.0; 0.9; 2.9; 2.5; 1.8. This alternative series appears to be more representative of the market than the one above.

2/ Alternative information from the Bank of Guyana suggests that the parallel market rate typically does not currently differ significantly from the cambio market rate.

3/ November 1992.

4/ August 1992.

5/ An alternative series based on the central bank rate versus the market bureau de change exchange rate is as follows: 1990: 13.9; 1991: 58.6; September 1992: 19.5.

6/ October 1992.

7/ The premium was 1.9 percent as late as August 1992.

Table 3. External Indicators

Country	Pre-float period t-3	t-2	t-1	Year of float t	Post-float period t+1	t+2	t+3
1. The Gambia				(1986)			
Current account deficit (+) in relation to exports (percent)	60.4	-8.9	-11.6	-6.5	-8.2	-31.9	-15.0
Exports in relation to reserves (ratio)	18.7	40.1	36.3	4.8	2.9	4.4	4.9
Reserves in relation to imports (percent)	3.3	2.3	2.8	16.0	27.1	18.0	16.4
Balance of payments deficit (+) in relation to reserves (ratio)	7.6	8.8	3.3	2.3	-0.4	-0.9	-0.1
2. Guyana 1/				(1990)			
Current account deficit (+) in relation to exports (percent)	45.2	43.7	55.1	72.5	50.0P	...	...
Exports in relation to reserves (ratio)	28.6	53.2	15.4	7.1	1.9P	...	...
Reserves in relation to imports (percent)	3.2	1.9	6.3	11.5	50.8P	...	...
Balance of payments deficit (+) in relation to reserves (ratio)	16.0	26.2	13.6	6.8	0.5P	...	...
3. Jamaica				(1990)			
Current account deficit (+) in relation to exports (percent)	19.3	-3.4	29.7	22.8	...	...	...
Exports in relation to reserves (ratio)	4.1	6.0	9.3	6.9	...	...	...
Reserves in relation to imports (percent)	16.4	11.9	6.7	10.4	...	...	...
Balance of payments deficit (+) in relation to reserves (ratio)	-1.7	-0.5	1.8	-0.6	...	...	...
4a. Nigeria				(1986)			
Current account deficit (+) in relation to exports (percent)	42.1	-1.0	-19.6	-6.1	1.0	2.8	-13.9
Exports in relation to reserves (ratio)	10.5	8.1	7.9	5.6	6.5	10.6	4.5
Reserves in relation to imports (percent)	8.6	16.5	22.2	29.2	28.4	15.2	47.8
Balance of payments deficit (+) in relation to reserves (ratio)	3.0	0.7	0.7	0.9	3.9	7.6	1.5
4b. Nigeria				(1989)			
Current account deficit (+) in relation to exports (percent)	-6.1	1.0	2.8	-13.9	-37.7	...	...
Exports in relation to reserves (ratio)	5.6	6.5	10.6	4.5	3.5	...	...
Reserves in relation to imports (percent)	29.2	28.4	15.2	47.8	78.3	...	...
Balance of payments deficit (+) in relation to reserves (ratio)	0.9	3.9	7.6	1.5	-0.2	...	...
5. Sri Lanka				(1990)			
Current account deficit (+) in relation to exports (percent)	23.4	26.7	27.5	16.0	...	...	...
Exports in relation to reserves (ratio)	5.0	6.7	6.2	4.4	...	...	...
Reserves in relation to imports (percent)	14.9	11.0	11.9	18.2	...	...	...
Balance of payments deficit (+) in relation to reserves (ratio)	0.2	0.5	-0.2	-0.1	...	...	...

Source: IMF, International Financial Statistics.

1/ IMF staff estimates, except for reserves taken from IFS. P = preliminary.

Table 4. General Economic Indicators

Country	Pre-float period t-3	t-2	t-1	Year of float t	Post-float period t+1	t+2	t+3
The Gambia				(1986)			
Real GDP growth rate 1/ 2/	-8.2	1.6	4.1	2.8	1.7	4.3	5.2
Export growth rate (volume) 2/ 3/	-6.0	-34.7	9.0	-5.3	45.5	24.5	21.5
Real import growth rate 2/ 3/	-27.4	-9.2	-4.1	9.7	0.3	18.0	19.2
Inflation rate (CPI based)	10.5	22.1	18.3	56.6	23.5	11.7	8.3
Fiscal deficit (+)/GDP 1/ 2/	6.0	7.5	4.7	5.1	7.2	-1.8	1.7
Money growth rate (based on money plus quasi money)	26.7	5.5	51.3	7.3	24.6	14.7	20.8
Increase in domestic credit as percent of broad money	61.3	39.2	67.4	-61.7	-66.3	10.5	-6.4
Increase in credit to public sector as percent of broad money	33.9	26.4	35.4	-53.9	-63.7	5.4	-13.0
Deposit interest rate	8.5	9.0	9.8	16.1	15.8	15.0	12.9
Guyana				(1990)			
Real GDP growth rate 3/	0.1	-3.0	-4.8	-6.2	6.1P	...	...
Export growth rate (volume) 3/	-3.3	-6.0	-0.9	-8.8	17.5P	...	...
Real import growth rate 3/	-11.1	-13.3	-5.3	2.8	...	...	...
Inflation rate (CPI based) 3/	28.7	39.9	89.7E	63.6E	105.9E	...	...
Fiscal deficit (+)/GDP	40.0	29.8	8.1	35.4	...	...	...
Money growth rate (based on money plus quasi money)	53.8	41.5	48.5	84.1	76.5	...	...
Increase in domestic credit as percent of broad money	79.8	29.7	-20.9	20.7	9.6	...	...
Increase in credit to public sector as percent of broad money	67.2	14.2	-38.9	0.1	-11.4	...	...
Deposit interest rate	11.1	12.0	...	29.2	...	...	...
Jamaica				(1990)			
Real GDP growth rate	6.2	1.5	4.6	3.8 3/	...	...	...
Export growth rate (volume)	6.9	-0.5	29.1	18.1	3.5	...	...
Real import growth rate 3/ 4/	14.4	20.6	12.4	-2.6	-4.0	...	...
Inflation rate (CPI based)	6.6	8.2	14.4	21.9	51.1	...	...
Fiscal deficit (+)/GDP 3/ 4/	...	12.8	6.3	2.9	0.4	...	...
Money growth rate (based on money plus quasi money)	12.5	32.3	6.6	21.5	51.4	...	...
Increase in domestic credit as percent of broad money	-11.8	2.6	6.1	-3.6	0.4	...	...
Increase in credit to public sector as percent of broad money	-25.3	-19.3	-11.4	-16.0	-26.0	...	...
Deposit interest rate	17.5	17.9	19.0	26.0	27.4	...	...

Table 4 (Concluded). General Economic Indicators

Country	Pre-float period			Year of float	Post-float period		
	t-3	t-2	t-1	t	t+1	t+2	t+3
4a. Nigeria				(1986)			
Real GDP growth rate	-5.4	-5.1	9.4	3.1	-0.5	9.9	5.3
Export growth rate (volume)(crude petroleum)	-7.4	17.3	13.6	-38.0	38.7	11.6	...
Real import growth rate	...	...	...	...	...	...	...
Inflation rate (CPI based)	23.3	39.6	7.4	5.7	11.4	54.5	50.4
Fiscal deficit (+)/GDP	...	4.6	2.8	3.4	8.9	...	...
Money growth rate (based on money plus quasi money)	14.0	11.6	9.0	1.9	22.4	32.9	10.7
Increase in domestic credit as percent of broad money	34.6	15.7	7.4	17.4	16.2	37.5	-18.5
Increase in credit to public sector as percent of broad money	28.4	13.2	2.7	2.3	9.9	21.9	-24.1
Deposit interest rate	7.4	8.3	9.1	9.2	13.1	...	...
4b. Nigeria				(1989)			
Real GDP growth rate	3.1	-0.5	9.9	5.3	8.2	5.0 3/	...
Export growth rate (volume)(crude petroleum)	-38.0	38.7	11.6	...	...	...	...
Real import growth rate	...	...	...	...	...	...	...
Inflation rate (CPI based)	5.7	11.4	54.5	50.4	7.4	13.0	...
Fiscal deficit (+)/GDP	3.4	8.9	...	...	...	...	...
Money growth rate (based on money plus quasi money)	1.9	22.4	32.9	10.7	35.4	...	...
Increase in domestic credit as percent of broad money	17.4	16.2	37.5	-18.5	42.8	...	...
Increase in credit to public sector as percent of broad money	2.3	9.9	21.9	-24.1	30.5	...	...
Deposit interest rate	9.2	13.1	...	...	...	14.9	...
5. Sri Lanka				(1990)			
Real GDP growth rate	1.5	2.7	2.3	6.2	4.8	...	...
Export growth rate (volume)	1.5	-2.9	2.0	16.5	4.2	...	...
Real import growth rate	2.4	-4.9	-6.2	5.6	13.7	...	...
Inflation rate (CPI based)	7.7	14.0	11.5	21.5	12.2	...	...
Fiscal deficit (+)/GDP	8.7	12.7	7.4	7.8	7.5	...	...
Money growth rate (based on money plus quasi money)	15.4	14.9	13.3	15.4	...	...	...
Increase in domestic credit as percent of broad money	21.7	38.8	14.0	24.5	...	...	...
Increase in credit to public sector as percent of broad money	16.0	24.1	10.7	8.0	18.5	...	...
Deposit interest rate	11.5	13.2	16.4	19.4	...	...	...

Source: IMF, International Financial Statistics, except as indicated otherwise.

1/ Data from IMF Occasional Paper No. 100.

2/ Based on years from July to June. Example: 1986 refers to year July 1986-June 1987 over preceding period.

3/ IMF staff estimates. P = preliminary; E = estimate.

4/ Information available on a fiscal year basis (April-March).

2. Factors affecting the choice of an interbank floating rate system

In deciding to adopt a floating exchange arrangement in The Gambia, Guyana, Jamaica, and Nigeria, the national authorities were concerned primarily about eliminating the segmented nature of the exchange system. Moreover, the past policy of periodic depreciations under a fixed-peg regime had not helped to solve the persistent balance of payments problems. In all five countries, the official foreign reserve position had been so seriously weakened and the need for structural reforms in the foreign exchange and trade regime was so pressing that it would have been difficult for the respective central banks to rely on a fixed exchange rate system. 1/ Given the magnitude of the desired correction in the external imbalances and the need to substantially liberalize the exchange and trade systems, the underlying path of the equilibrium exchange rate would have been difficult to forecast. In these circumstances, a market-based floating exchange rate system was expected to provide a more efficient and reliable mechanism for determining the official rate and allocating scarce foreign exchange resources.

Each of the countries surveyed could, in principle, have chosen between two types of floating exchange rate systems, namely, an interbank or an auction market. Apart from institutional considerations, the interbank system was chosen because it was more consistent with a market approach, minimized the scope for administrative interference, and permitted the authorities to avoid the adverse political repercussions of announcing changes in the exchange rate. However, a pure floating interbank exchange arrangement was initially introduced only in The Gambia (January 20, 1986) and in Jamaica (September 17, 1990). The other countries surveyed adopted a more phased approach to introducing a fully floating exchange rate system, mainly to fit their specific institutional settings, to apply an appreciated rate for selected transactions, and to minimize market instability. Thus, in Guyana starting on March 13, 1990, as a transitional arrangement, a floating interbank exchange market covered all but certain specified transactions, for which there was an officially managed fixed exchange rate until its elimination on February 21, 1991; thereafter, the exchange rate was allowed to float freely. In Nigeria, starting on September 26, 1986, a two-tier system was introduced as a transitional arrangement, with the first tier comprising an administered exchange rate (for oil exports and certain public sector transactions), and a second-tier foreign exchange market (SFEM)--a composite market--comprising both a central bank auction for commercial banks and a floating interbank exchange market. This system was not fully unified until March 1992. In Sri Lanka, starting on August 20, 1990, financial institutions in the interbank exchange market were allowed

---

1/ For example, the Sri Lankan authorities were interested in choosing an exchange rate regime that could both facilitate timely adjustments in the official exchange rate (by depoliticizing such actions) and better promote the structural reform process; the parallel exchange market per se was not the focus of their attention.

freely to negotiate rates with their customers within a 3 percent band on either side of a reference rate, which was determined daily by the central bank on the basis of a transaction-weighted average of the exchange rates reported during the previous working day; free floating was thus circumscribed within a fixed but adjustable band in order to avoid excessive instability in the rate. The potential scope for central bank management of the auction rate in Nigeria and of the reference rate for commercial banks in Sri Lanka, made these hybrid systems more prone to being officially administered than (and hence, different from) the free floating interbank exchange markets of The Gambia and Jamaica.

3. The role of financial institutions and the regulatory framework

At the time of the introduction of their respective interbank exchange rate systems, the institutional environment of the financial sector was less developed in The Gambia and Guyana than in the other three countries. There were basically only three commercial banks in The Gambia, and five in Guyana, whereas Jamaica, Nigeria, and Sri Lanka had a larger number of commercial banks and also had other significant financial institutions, including merchant banks. Thus, in order to increase the number of participants in the market in Guyana and foster competition among them, the decision was made from the start to license 23 nonbank foreign exchange dealers (in addition to the 5 commercial banks). 1/ In The Gambia, although only the three commercial banks were initially allowed to operate in the interbank market, starting in April 1990 foreign exchange bureaus began to be licensed. In Jamaica, all 11 commercial banks, 19 merchant banks, and a number of nonbank financial institutions, were authorized to operate in the interbank exchange market from the start. In Nigeria, the original interbank market (1986) was open only to commercial banks and merchant banks, but by 1989 the reformed interbank market was also open to foreign exchange bureaus. In Sri Lanka many other financial institutions besides commercial banks, were allowed to operate in the market.

The central banks also assumed the role of main regulators of the interbank exchange markets with a view to promoting their development, maintaining market competition, and providing adequate prudential regulation and supervision. To promote the interbank market, the authorities of these countries generally required that all transactions be undertaken by commercial banks and other authorized dealers, with the exceptions being the transactions of the government and/or of other specific sectors that were

1/ The introduction of the interbank market was facilitated by the previous existence of a well-developed parallel (cambio) market. The market mechanisms, therefore, already were largely in place and licenses were granted to nonbank foreign exchange dealers who previously had been active in the cambio market.

handled by the central bank (in most countries). 1/ In The Gambia, to promote the interbank market, the authorities initially further required that public enterprises surrender their foreign exchange earnings to the banks; began to plan the government's purchases of foreign exchange from the Central Bank within a framework of a foreign currency budget to enable the Central Bank to smoothly phase its purchases in the interbank market; requested hotels involved in the tourist trade to repatriate their exchange earnings through the banking system; and recognized the critical role of appropriately supporting macroeconomic policies (including positive real interest rates) in preventing capital outflows.

Prudential regulations and market supervision were developed to different degrees in the five countries. To protect the banks, the authorities of The Gambia, Jamaica and Sri Lanka introduced guidelines placing limits on their foreign exchange working balances and open positions. In Jamaica, dealers were required to post their rates to the public and to report the rates to the Bank of Jamaica; the Bank also provided guidelines to prevent market abuse and ensure the liquidity and solvency of dealers (by prescribing limits on their operations in relation to their capital). In Guyana, central bank supervision to date has been limited to the requirement that foreign exchange dealers report weekly on the volume of transactions, the average exchange rate, and the opening and closing balances.

Interest rate policies were liberalized prior to the introduction of the interbank exchange rate system in The Gambia (September 1985), Jamaica (1984) and Guyana (April 1989) and shortly after the introduction of the new exchange system in Nigeria (1987); substantial progress toward this objective is currently being made in Sri Lanka. The authorities also began to develop appropriate free-market financial instruments to deepen the markets and increase the flexibility of the rates. 2/ The freeing of domestic interest rates or the more active management of these rates quickly increased the rates toward positive real levels in all cases but Sri Lanka. The increase in domestic interest rates reduced incentives for capital outflows and, therefore, facilitated the progressive dismantling of regulations designed to prevent these outflows, some of which could have adversely affected the determination of the interbank exchange rate and its stability.

1/ In Sri Lanka, the authorities permitted some domestic entities (e.g., the Greater Colombo Economic Council and other approved enterprises) to retain the proceeds of their foreign borrowing in special accounts held in Foreign Currency Banking Units, a measure taken with a view to promoting foreign capital mobilization.

2/ Mention may be made, for instance, of the introduction of Treasury bill auctions in The Gambia in July 1986 and in Guyana in June 1991.

III. Reforms of the Exchange and Trade System

1. Macroeconomic adjustment framework

The floating interbank exchange rate systems under review were introduced in the context of medium-term programs of macroeconomic adjustment and structural reform. In all cases, emphasis was put on price liberalization; opening up the trade and exchange system; restructuring and reducing the role of the public sector; and policies to promote the development of the financial sector and the nonfinancial private sector. Appropriately tight fiscal and monetary policies were programmed to provide an environment conducive to durable structural reform. The broad objectives of the programs were to provide the basis for sustained economic growth in the context of low inflation and a viable balance of payments position over the medium term. In each of the countries surveyed, the introduction of a floating interbank exchange market was combined with a significant liberalization of the exchange and trade system, because it was a necessary condition for developing a free exchange market (including eventually a forward exchange market). 1/ Equally important, it provided the basis for aligning domestic prices of tradeable goods with world prices. However, implementation of the programs varied from country to country and the phasing of the reforms was more gradual in some cases than in others.

In The Gambia, the authorities in June 1985 began to implement a comprehensive adjustment program, the Economic Recovery Program (ERP), aimed at restoring internal and external equilibrium and lay the foundations for sustainable economic growth. 2/ This was followed by the Program for Sustained Development in 1990. These adjustment efforts were supported by successive arrangements from the Fund beginning with two annual arrangements under the structural adjustment facility (SAF) during 1986/87-1987/88 (July/June). The reforms helped to restore an appropriate structure of relative prices; introduce complementary structural reforms; and were supported by restrictive fiscal and monetary policies.

Similarly, in Guyana, an Economic Recovery Program (ERP) was introduced in mid-1988 for a three-year period. As implementation of this initial program was weak, the government strengthened its reform efforts in the context of an updated ERP for 1990-92, prepared in collaboration with the staffs of the Fund and the World Bank. Under the ERP the overall fiscal deficit was reduced; the exchange and trade system was liberalized and the

---

1/ A brief discussion of forward markets is provided in the next section. For a comprehensive review of efforts to develop forward markets in developing countries, see Peter J. Quirk, Graham Hacche, Viktor Schoofs, and Lothar Weniger, Policies for Developing Forward Foreign Exchange Markets, IMF Occasional Paper No. 60 (June 1988).

2/ Michael T. Hadjimichael, Thomas Rumbaugh, and Eric Verreydt, The Gambia: Economic Adjustment in a Small Open Economy, IMF Occasional Paper No. 100 (October 1992).

exchange rate unified; virtually all price controls were removed and consumer subsidies eliminated; the incentive framework for the private sector was improved and state intervention was curtailed; progress was made in restructuring and reducing the size of the public sector; a shift to market-based instruments of monetary control was initiated; and arrears to multilateral and bilateral donors were cleared.

Beginning in 1989, Jamaica implemented stabilization measures and wide-ranging structural reforms in the context of successive stand-by arrangements with the Fund, culminating in an extended arrangement for a three-year period beginning in October 1992. The broad objectives of these programs were achieved by further opening up the economy and by improving market incentives through decontrolling prices, the exchange rate and interest rates.

In early 1986, the Nigerian authorities drew up a medium-term structural adjustment program (SAP) and in November 1986 they followed this up by requesting a 14-month stand-by arrangement from the Fund. A major component of the SAP was the establishment of a new exchange rate system and the liberalization of the exchange and trade system. Capital restrictions were to be liberalized over the long run. The SAP removed price controls, liberalized the export of non-oil commodities, adjusted the prices of many products, and terminated agricultural commodity boards. 1/ However, in the context of several successive arrangements with the Fund, there were intermittent periods of excessively expansionary financial policies and the liberalization of the external sector was phased very gradually.

In 1988, Sri Lanka began to develop a medium-term strategy aimed at addressing the structural constraints to higher growth and reducing macroeconomic imbalances. This was supported by a three-year arrangement under the Fund's structural adjustment facility (SAF) and funds from multilateral and bilateral sources. After a disappointing start in the first year of the adjustment program, the Government recommenced its stabilization and adjustment efforts in mid-1989. A pronounced tightening of both fiscal and monetary policies was effected, and structural reforms began to be implemented including a change in the exchange rate regime and the liberalization of the exchange and trade system, the liberalization of transport activities, and the privatization of state banks and some public enterprises.

1/ For petroleum products, the domestic sales prices were maintained well below export parity.

2. Liberalization of the exchange system

In The Gambia, at the very start of the floating system, the authorities eliminated all current account exchange restrictions, 1/ while maintaining export surrender requirements, and the requirement that exchange transactions be conducted through banking channels. 2/ In fact, the implementation of the Exchange Control Act was suspended, resulting essentially in the lifting of all restrictions on current, as well as capital, international transactions. The liberalization of the exchange system was completed in July 1990, with the elimination of all outstanding payment arrears. 3/

In Jamaica, between September 1990 and May 1991, various measures were taken to ensure that current international transactions were largely free of exchange restrictions, the remaining restrictions being limited to outflows of resident-owned capital other than for approved investments abroad. As part of these measures, prior approval of the Bank of Jamaica was no longer needed for bona fide applications for foreign exchange up to certain amounts for most current invisible payments. The authorities also removed a regulation that required smaller banks to keep their exchange rates close to that of the two largest banks; this change gave commercial banks greater scope for setting their rates independently of each other. 4/ The exchange system was further liberalized in September 1991, with the removal of virtually all restrictions on capital outflows and inflows.

In Guyana, following the official recognition of the parallel so-called "cambio" market (which merged with the new floating interbank market), many transactions were transferred from the official to the interbank market. However, for a period of about one year the official market continued to be supplied with receipts from traditional merchandise exports, with the proceeds being used for payments on account of public debt service, most

---

1/ At the same time, as noted later, in relation to trade restrictions, they abolished specific import licensing which was replaced by an open general license (OGL) system.

2/ The current account concept used in this paper, derived from balance of payments methodology, is not identical with the Fund's jurisdictional concept of "current international transactions." Although Nigeria and Sri Lanka still avail themselves of the transitional arrangements under Article XIV of the Articles of Agreement, all exchange restrictions on current transactions have been eliminated, at least in the case of Sri Lanka. The Gambia, Guyana and Jamaica have accepted the obligations of Article VIII which enjoins members to avoid imposing restrictions on current international transactions without Fund approval.

3/ Eventually the Exchange Control Act was repealed.

4/ As noted earlier, another regulation was removed, whereby forward exchange rates were derived by using the spot rate as a base plus a specific markup.

petroleum products, medical services, some basic food items, and limited inputs for exporters surrendering in this market. The rates in the two markets were unified on February 21, 1991 and the official market was abolished in September 1991. There remained no restrictions on current and capital transactions in the interbank market.

The liberalization effort was more gradually phased in the two other countries surveyed. In Nigeria, with the introduction of the SFEM in September 1986, restrictions on payments for invisibles, which were earlier subject to stringent controls, were eliminated and basic allowances were provided for some payments. Most capital account transactions remained subject to authorization by the Ministry of Finance. Inward direct investment was liberalized later in 1988, allowing investors to acquire up to 100 percent in Nigerian ventures, with the exception of banking, insurance and petroleum. Under the SFEM, the commercial banks in Nigeria had to rely on the central bank administered auctions to obtain access to the Government's net foreign exchange surplus, namely, the proceeds from oil exports and foreign borrowing minus public sector payments for debt service and for imports of goods and other services. 1/ Because these large public sector transactions were undertaken outside the interbank market, the coverage of transactions in this market was limited, and the participants in the market were faced with some measure of uncertainty about the public sector's planned foreign exchange sales. As the rate in the interbank market initially had to be limited to a margin of 1 percent above the previous auction rate, and as banks tried to bid conservatively at the auction to avoid excessively depreciating the auction rate, 2/ the interbank market rate was relatively sticky, with the result that there continued to be a large informal, parallel market with a more depreciated rate. The rate in the interbank market (including for the resale of exchange bought at the auction) was liberalized in January 1987, and it began to diverge from the auction rate. From June 1987, banks were required to resell the exchange obtained at the auction at the buying price plus a 1 percent margin, but a free market-determined interbank rate could be applied to the funds that banks obtained from autonomous sources. The two rates continued to diverge under this market segmentation and also because of new regulations by which commercial banks were required to provide (at the time of bidding at the auction) information on the expected uses of foreign exchange by their customers, and because they continued to be subject to market share restrictions on the amount of foreign exchange they could bid for.

1/ The first-tier administered exchange rate for public transactions was eliminated, as intended, in July 1987, when the rate was unified with the auction rate.

2/ As explained later, conservative bidding by banks in the auction market was largely the result of the application, by the central bank, of market shares in this market that practically guaranteed access to all banks regardless of their bids.

When in 1989 the Nigerian authorities licensed foreign exchange bureaus, without restriction, to compete in the interbank market, the autonomously funded free segment of the interbank market merged with the informal market, giving rise to a dual exchange rate system--an auction rate and a more depreciated interbank rate in the free (but officially sanctioned) market that included exchange bureaus. It was understood that unification of the exchange system would eventually become necessary for eliminating exchange distortions. This was achieved on March 5, 1992 when banks and other authorized dealers were set free, without restriction, to determine the rates in the interbank market and when the Central Bank became one more supplier of foreign exchange to the interbank market at the going interbank rate and ceased relying on limits on foreign exchange allocated to banks.

In Sri Lanka, the new interbank exchange system was introduced with some liberalization of the regulations requiring exporters and borrowers to repatriate their external funds through the domestic banks. To promote the mobilization of foreign capital, the authorities permitted some domestic entities (such as the Greater Colombo Economic Council and other approved enterprises) to retain the proceeds of their foreign borrowing in special accounts (which were held in Foreign Currency Banking Units). In April 1992, a prohibitive tax on the transfer of equity from domestic to foreign ownership was eliminated. Increases were authorized in foreign exchange allowances for business, tourism, and educational purposes; and approval for capital and dividend repatriation for foreign investors was substantially liberalized. In March 1993 the authorities removed restrictions on a range of foreign exchange transactions by residents and allowed exporters to keep earnings abroad instead of repatriating them.

In all five countries, although the banks and other authorized exchange dealers were relatively free to negotiate the exchange rate between themselves and the public on a continuous basis, they were nevertheless guided by certain regulations and/or central bank operations that affected the price of foreign exchange. As noted earlier, in Sri Lanka regulations permitted daily exchange rates to vary only within a 3 percent band on either side of the average rate determined by the market on the previous business day (the reference rate). In Nigeria, the exchange rate in the interbank market was influenced (until early 1992) by restrictions applying to that market, as well as by the rate determined at the Central Bank auction (or at the Central Bank "serial" sale after the 1989 reform), over which the Central Bank retained considerable control. Except for a brief period in 1987, the funds acquired by banks and other foreign exchange dealers at the Central Bank auction or serial sale had to be resold at a rate that could not differ by more than 1 percent from the purchase rate. In The Gambia, the Central Bank could influence the rate through its participation (with the banks and other authorized dealers) in the weekly "fixing sessions." In addition, in Guyana, Jamaica, and Sri Lanka, their respective central banks reserved for themselves the right to undertake operations in the interbank market, including in the latter two cases, for the explicit purpose of influencing the market rate and not solely for

smoothing out purposes. In Guyana this authority has not been used actively to date.

The extent to which government or more broadly defined public sector transactions were conducted at a more appreciated rate relative to the floating rate in the interbank market differed from country to country. In The Gambia, the rate for official transactions was determined at weekly "fixing sessions" at which the banks and the Central Bank could buy and sell foreign exchange at freely negotiated rates; the rate emerging from these fixing sessions was generally close to the prevailing interbank market rate. As Jamaica had introduced a unified floating interbank system, there was no differential treatment between public and private sector transactions. In Sri Lanka also, the central bank reference rate was a close approximation of the interbank "market average" rate, so that public and private sector transactions were treated in a broadly similar manner. In Nigeria, the administered first-tier rate which was applied to public sector transactions until July 1987 was generally more appreciated than the interbank market rate. After unification of the first-tier with the second-tier market, public transactions were effected at the auction rate which was more appreciated than the free interbank rate (both before and after the introduction of foreign exchange bureaus). In Guyana, a more appreciated official rate was applied to some public sector transactions such as external debt service payments before unification of the rates in February 1991.

The extent to which surrender requirements for foreign exchange were liberalized and the timing of the liberalization varied across the countries surveyed. In The Gambia, surrender requirements were not formally abolished but de facto ceased to be implemented. In Guyana, surrender requirements for all exports of goods and services effected through the cambio market were eliminated from the start; the remaining surrender requirements for transactions effected through the official market were eliminated in the context of the full unification of the exchange system. In Jamaica, the authorities eliminated surrender requirements as they removed virtually all controls on capital transactions in September 1991. 1/ In Nigeria, the authorities eventually allowed non-oil exporters to retain fully their export proceeds. In Sri Lanka, most proceeds from exports and borrowing remain subject to surrender requirements to financial institutions; only a few special retention schemes for some public entities were introduced with the exchange rate float.

The measures that the authorities took to foster competition in the exchange markets differed significantly, and were generally counter-

---

1/ The only remaining capital controls were: (i) prior approval required for the release of funds in excess of J$5,000 a year from blocked accounts; (ii) the regulation that financial institutions match their Jamaica dollar liabilities against Jamaica dollar assets; and (iii) some restrictions on capital repatriation under the debt-equity conversion program.

productive when they involved regulating the price and/or the volume of foreign exchange transactions. In Jamaica, the Central Bank carried out the function of overseeing the working of the market to keep it competitive and efficient in a way that did not directly involve regulating the market participants' activities. By contrast, in Nigeria where the authorities became highly concerned about the possibility of large banks cornering the market, they introduced regulations directly designed to prevent this potential problem. Thus, in connection with the introduction of the 1986 exchange system reforms, official limits were imposed on individual banks in the auction market (5 percent of the total funds offered at each auction for the three largest banks and 3 percent for the other banks). These limits, in effect, guaranteed widespread distribution of auctioned foreign exchange among banks regardless of their bids, which thereby tended to be very conservative, and proved basically counterproductive in trying to get the auction rate converge to the interbank and free market rates. In the early stage of the 1989 reforms of the interbank exchange system, the allocation of central bank foreign exchange to banks was made, on the basis of market shares, 1/ at the central exchange rate derived from the banks' foreign exchange transactions, but this system was abandoned in December 1990, when a new Dutch auction system was introduced. However, the new system still retained the restriction that the Central Bank would accept bids from six separate categories of banks, with each category having fixed percentage allocations. This arrangement once again was counterproductive and did not succeed in introducing market forces into the auction market, with the result that the auction rate continued to diverge from the interbank rate in the free market comprising the exchange bureaus and the autonomously funded segment of the banks. 2/

In Guyana, where explicit competition rules were not developed, cambio market participants initially appeared to be wary of the possible political implications of exchange rate depreciation and there was evidence of informal rationing by dealers, as there usually was a backlog of foreign exchange demand and as some dealers limited the availability of foreign exchange for particular types of transactions not otherwise regulated. 3/ Nevertheless, an attempted currency revaluation by market dealers in August 1990, against the market fundamentals, did not succeed and was soon abandoned. The existence of a certain backlog of unfilled orders for foreign exchange continues to be a feature of the operations of commercial bank dealers in Guyana. This appears at present to reflect more the relatively undeveloped state of the banking system (no interbank market has

---

1/ An important reaction to the administrative allocation of foreign exchange to banks after the 1989 reforms was the proliferation of commercial and merchant banks, which benefitted from the allocation of scarce foreign exchange resources at below market prices.

2/ As noted above, the unification of the rates was achieved with the removal of all remaining restrictions in March 1992.

3/ No evidence of nonprice rationing has been cited in the other four countries under study.

developed as yet) than a systematic effort to affect the exchange rate, which has exhibited considerable flexibility on several occasions since the introduction of the cambio market.

Among the five countries surveyed, rudimentary forward foreign exchange markets had already operated in Jamaica and Sri Lanka before the introduction of the interbank market. To foster the forward market, in January 1991 the Jamaican authorities freed it by removing a regulation whereby forward exchange rates were derived by using the spot rate as a base plus a specified markup. This regulation, which had been introduced in November 1990, had proved to be counterproductive for the development of the forward market. Similarly, in Sri Lanka the direct involvement of the Central Bank in the forward market, previously available for imports of essential items, was eliminated; the commercial banks henceforth provided foreign exchange cover for commercial transactions at their own risk and at rates which were freely determined.

3. Reform of the trade regime

In The Gambia, accompanying the liberalization of the exchange rate system, the authorities revamped the trade system, putting in place a comprehensive OGL system with no restrictions on product groups or countries. In 1988 tariffs were lowered in connection with the introduction of a national sales tax of 10 percent which applied to all imports and which replaced the previous import tax of 6 percent of the c.i.f. value. In 1989 the average ad valorem tariff was further reduced from 28 percent to 18 percent. The Gambia Produce Marketing Board's monopoly on the most important export products (in particular, groundnuts) was abolished on February 20, 1990.

In Guyana, on June 15, 1990 (at the same time that additional transactions were transferred from the official market to the cambio market) the trade system was simplified and liberalized by removing certain items from the list of prohibited imports and by removing exemptions from the consumption tax and import duty previously granted to imports of agricultural, forestry and mining equipment. Furthermore, import licenses began to be granted automatically, within two days of application and without restrictions, for bona fide transactions except for imports of fuel which required purchases of foreign exchange in the official market. Virtually all import prohibitions were removed at end-October 1990, and in February 1991 Guyana introduced the CARICOM's Common External Tariff. From July 1991 the processing of license applications was further simplified.

Before the introduction of the floating interbank exchange rate system, Jamaica's trade regime had been liberalized in successive steps throughout the 1980s, most recently in 1987-88 as part of a trade (and financial sector) reform program supported by the World Bank. Import licenses became limited only to foodstuffs, motor vehicles, certain chemicals, fertilizers, pharmaceutical products, wood products, and items endangering public health or security. All other goods could be freely imported without license.

Concurrently, the structure of trade taxes was simplified so that in general the combined tariff and stamp duty applicable did not exceed 10 percent for raw materials, 20 percent for capital goods, and 60 percent for consumer goods. 1/ On September 1, 1990 an import-duty drawback system replaced the right of exporters of manufactured goods to receive a rebate of 7.5 percent of the value of their exports or the exemption from certain import taxes.

In Nigeria import licensing was abolished three days after the introduction of the SFEM in September 1986. However, import (and export) prohibitions were retained for a reduced number of items, including imports of rice, maize, wheat, vegetables, beer, and textile fabrics; and preshipment inspection was required for most imports valued at US$50,000 or more.

Paralleling the efforts toward the liberalization of the exchange system in Sri Lanka, reforms of the trade regime were undertaken to promote exports, reduce import protection, liberalize services and allow for greater scope for capital movements including especially inward direct foreign investment. Most state trading monopolies were eliminated, 2/ and the licensing requirements for exports and imports were rationalized and progressively confined to those maintained for health, environmental, or security reasons. 3/ Tariff reforms aimed at a reduction in the dispersion of effective rates of tariff protection and elimination of discretionary elements in the tariff system. In November 1991, a system containing four bands of 10, 20, 35, and 50 percent was introduced, compared to a previous system of 19 bands. A new Tariff Commission was appointed in mid-1992 to make further recommendations on tariffs and other aspects of the trade system.

IV. Performance of the Interbank Floats

The introduction of floating interbank exchange rate systems and the accompanying economic reforms in the five sample countries had repercussions on exchange rate and other external sector developments, and on general economic trends. Unfortunately, in the three countries (Guyana, Jamaica, and Sri Lanka) that introduced the new exchange rate system in 1990, the record for the post-reform years is yet insufficient to speak with full confidence on the effects of the new policy upon the external sector and general economic trends. Moreover, in assessing the economic trends, in all cases it is practically impossible to separate the effects of the floating

---

1/ However, if tariff rates under the Common External Tariff Arrangement of CARICOM (CET) exceeded these amounts, the CET rates would apply.

2/ The only remaining state trading monopolies are on petroleum and wheat.

3/ The number of items requiring import licenses was reduced from 143 in 1987 to 93 by mid-1992.

of the exchange rate from other macroeconomic and structural reforms that were part of the structural adjustment programs.

1. Exchange rate developments

The behavior of the floating exchange rate varied from country to country, as the underlying economic and regulatory conditions varied (Charts 1 to 5). 1/ The main factors affecting the exchange rate were general economic conditions and, in particular, the rate of domestic inflation; significant modifications of the exchange rate mechanism (when not freely floating); and exchange system liberalization measures. In all cases, the pressure of excessive domestic demand which tended to be manifested in rising domestic prices (in varying degrees) also pushed the exchange rate toward depreciation in the long term.

In The Gambia, Jamaica and Sri Lanka, which from the beginning established a unified floating rate and did not significantly alter the exchange rate mechanism after the float, there were continuous short-term changes in the exchange rate. 2/ In The Gambia, after the initial pronounced depreciation, the rate exhibited short cyclical variations within a depreciating trend. In Jamaica, the rate depreciated steadily through the early months of 1992, when a reversal of the trend took place. In Sri Lanka, a continuous depreciation similar to that of a de facto crawling peg took place through nearly the end of 1992.

In Guyana, the rate underwent an initial sharp depreciation with the introduction of free floating in March 1991, followed by substantial stability until the present.

In Nigeria, the downward slide of the exchange rate was accompanied by three brief discontinuous depreciations which corresponded to the three main alterations of the exchange rate mechanism: the initial float in September 1986, the revised system in January 1989, and the final unification of the auction and interbank rates in March 1992. There was evidence of some stickiness in the rate in between the discontinuous depreciations, as a result of constraining regulations described in Section III.

1/ All rates discussed here refer to end-of-month U.S. dollar rates taken from International Financial Statistics, except where indicated otherwise. These rates are those reported to the Fund as the main rates in the official market. In Guyana, for the period between the initial float (March 1990) and the open float (February 1991), the rate refers to the fixed official administrative rate, not to the interbank rate.

2/ For lack of daily data, this refers to the month-to-month changes observed in Charts 1 to 5.

The extent of exchange rate volatility under the floating rate regimes varied across countries. 1/ The largest degree of volatility, as measured by the average absolute percentage change in the exchange rate from month to month, is encountered in The Gambia 2/ and Jamaica, 3/ which floated freely. 4/ By contrast, Sri Lanka's exchange rate exhibited a smaller degree of variability, partly as a result of the fact that the exchange system is a managed float. Guyana's rate has remained remarkably stable since the free floating in March 1991. In Nigeria, the rate was relatively stable within each stretch in between changes of the exchange rate mechanism.

In The Gambia, Jamaica and Sri Lanka, the floating arrangements and exchange liberalization appeared to have led to the establishment of a relatively efficient foreign exchange market for the allocation of foreign exchange from exporters to importers, in both the public and private sectors. Access to foreign exchange through official channels was fully restored in these countries. In Guyana, by contrast, the relative stickiness of the exchange rate (certainly before the free floating in March 1991) was accompanied by some evidence of nonprice rationing by banks; since the free float, this rationing appears to be largely related not to any official intervention but to imperfections in the interbank market, such as the lack of extensive foreign exchange trading among banks and other foreign exchange dealers. In Nigeria, foreign exchange demands that were not fully met by banks and other authorized dealers continued to spill over into the remaining parallel exchange market.

The behavior of the real exchange rates pointed to a real depreciation in all cases but Sri Lanka. The real depreciation was rather large in Nigeria, with the real exchange rate index falling to about one fourth the initial level from 1986 to 1992; this decrease was associated with a sharp deterioration in the terms of trade resulting largely from the fall in oil prices. In Sri Lanka, the real exchange rate appreciated moderately (from an index of 88 in the third quarter of 1990 to 92 in the second quarter of 1992).

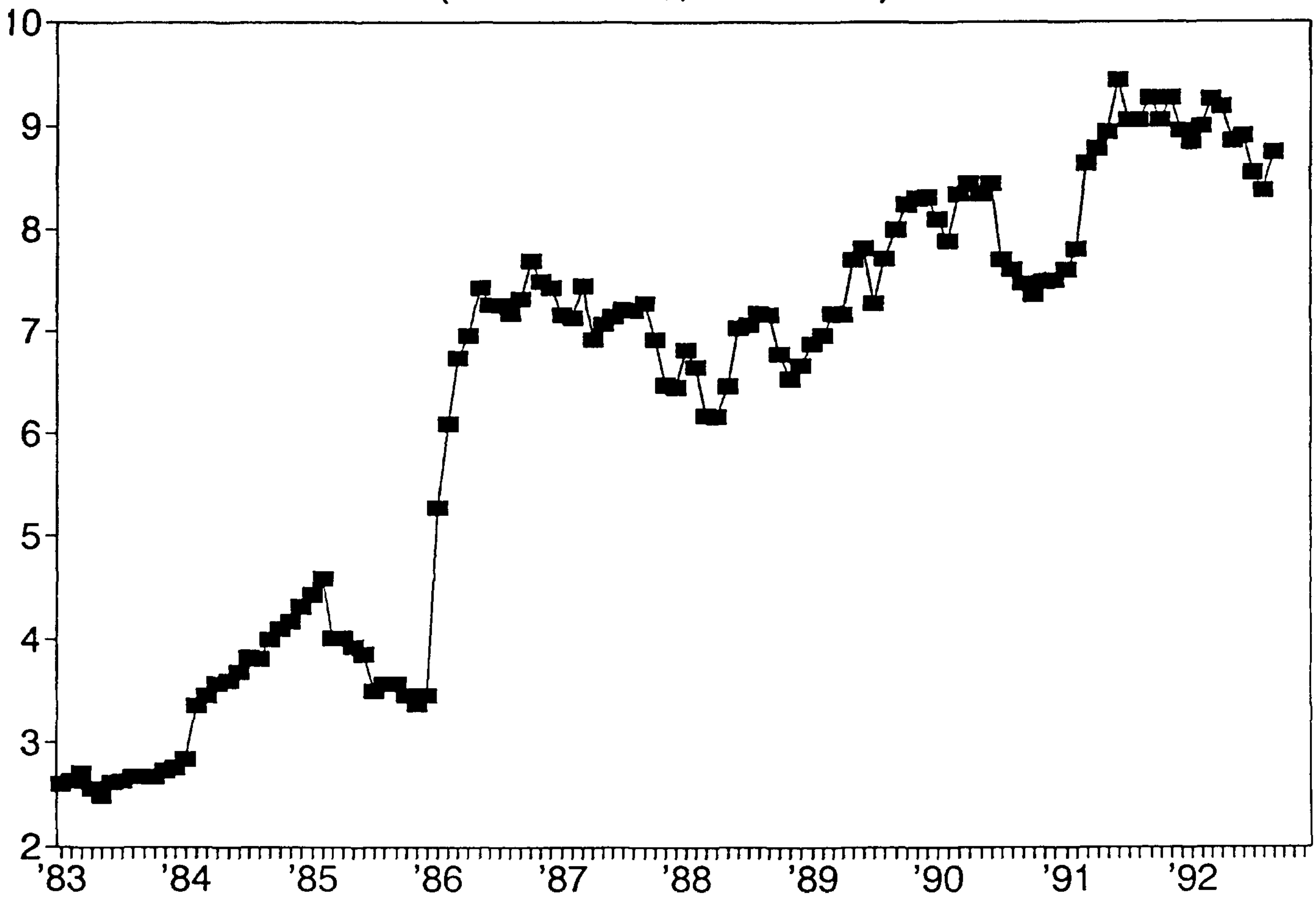
1/ The negative effects of such volatility on trade could not be quantified with the available data.

2/ From April 1986 to September 1992 the average monthly change was 2.9 percent. To the extent that The Gambia continued to have a large component of trade in pound sterling, the variability with regard to the dollar may be of secondary importance and may partly reflect the variations of the pound with respect to the dollar.

3/ From October 1990 to September 1992 the average monthly change was 6.6 percent. This includes sharp monthly depreciations in the period August-October 1991 which probably responded to a more accurate estimation of fundamentals by market participants.

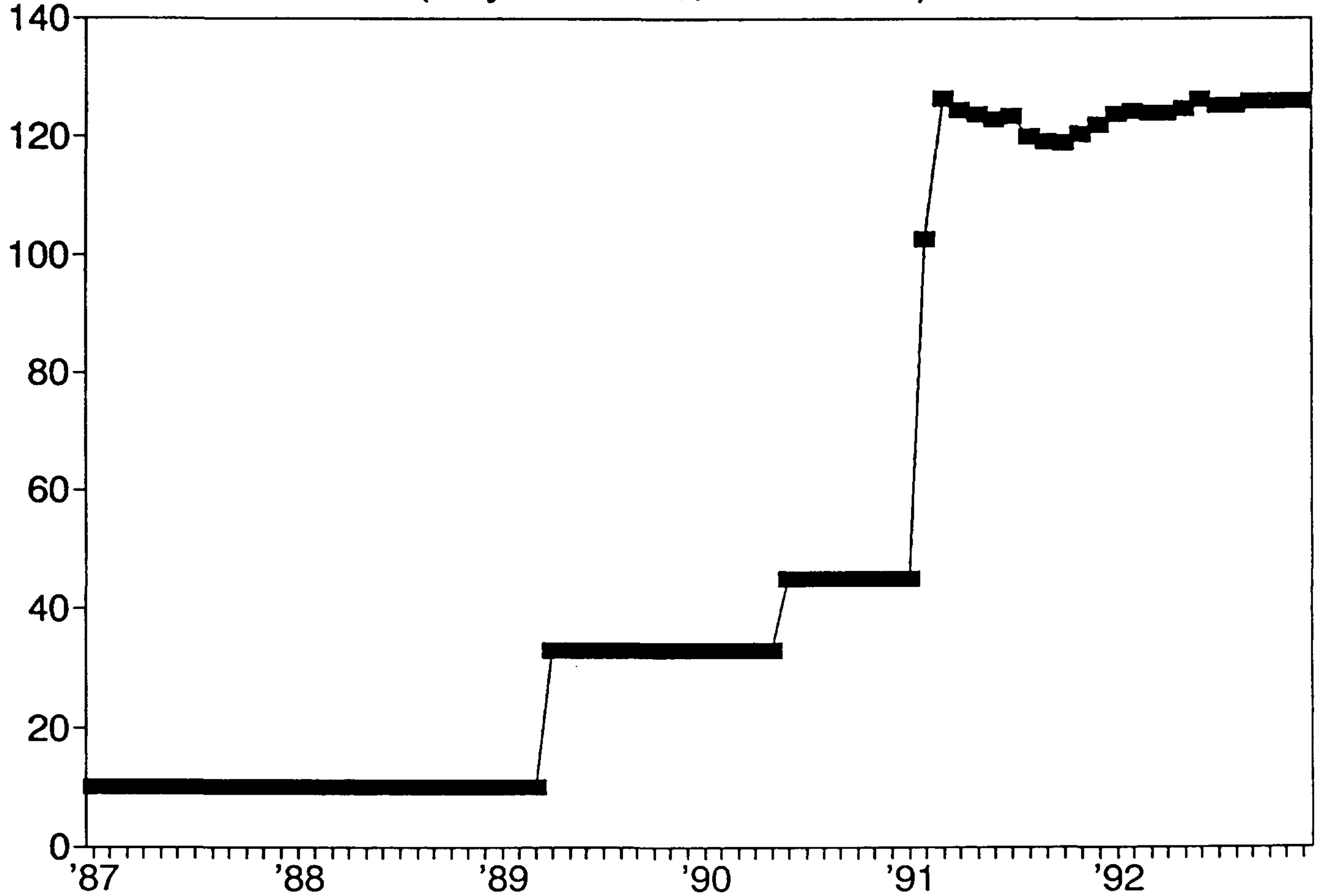
4/ This abstracts from discrete depreciations resulting from changes in the exchange rate mechanism in Guyana and Nigeria.

Chart 1: The Gambia: Exchange Rate 1/
(Dalasis/US$, 1/83-9/92)



1/ Based on end-of-month data from "International Financial Statistics"

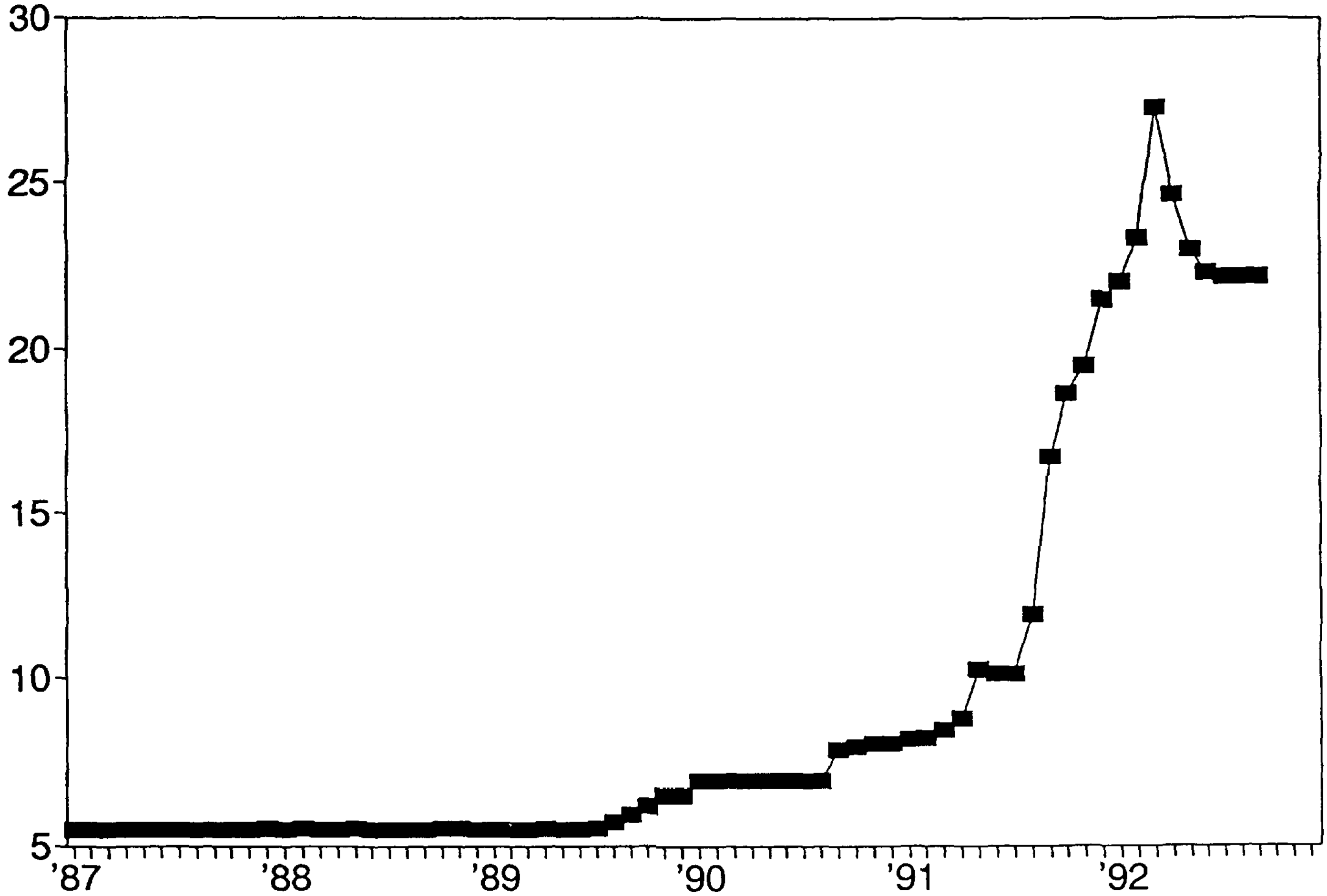
Chart 2: Guyana: Exchange Rate 1/
(Guyana$/US$, 1/87-12/92)



1/ Based on end-of-month data from "International Financial Statistics"

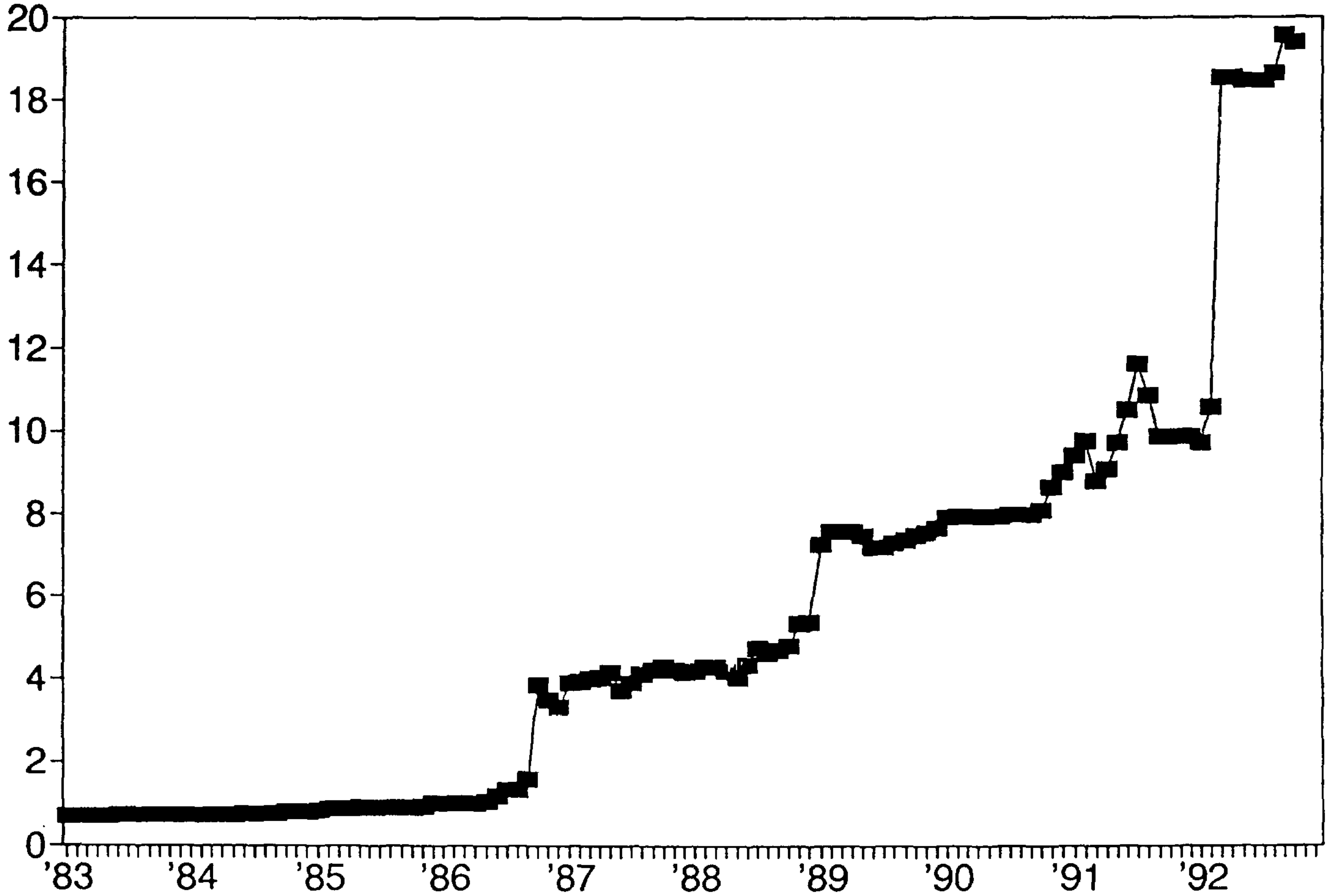
Chart 3: Jamaica: Exchange Rate 1/

(Jamaican$/US$, 1/87-9/92)



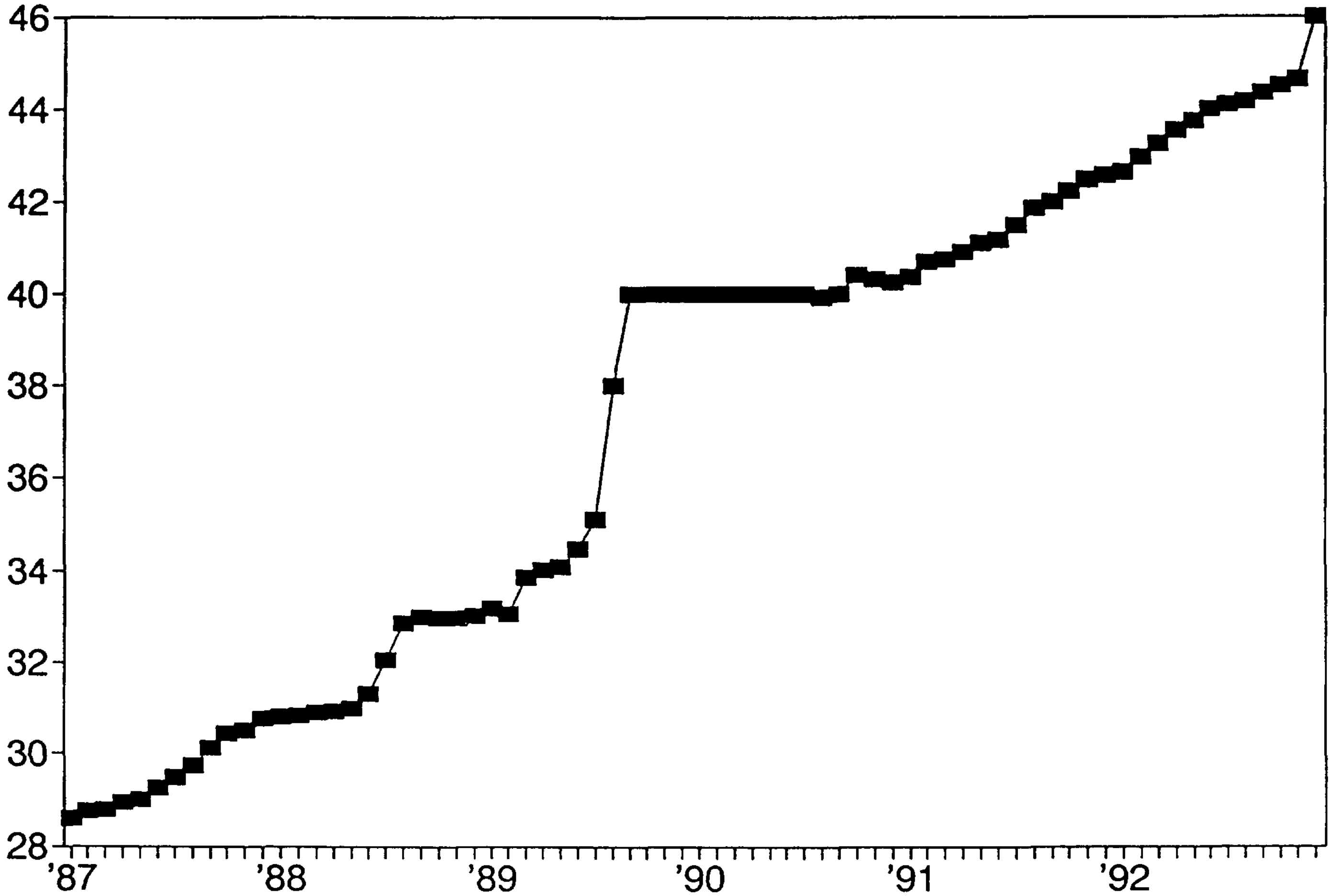
1/ Based on end-of-month data from "International Financial Statistics"

Chart 4: Nigeria: Exchange Rate 1/
(Naira/US$, 1/83-10/92)



1/ Based on end-of-month data from "International Financial Statistics"

Chart 5: Sri Lanka: Exchange Rate 1/
(Rupees/US$, 1/87-12/92)



1/ Based on end-of-month data from "International Financial Statistics"

This page intentionally left blank

The effect of the introduction of the interbank exchange rate systems on the parallel exchange rates--and on the breadth of the parallel exchange markets--was as expected in all five cases (Table 2). In all cases, the parallel exchange rate premium narrowed substantially by the end of the next year after the float, from 33 percent (just before the float) to 3 percent in The Gambia, 1/ from 133 percent (at the end of the year of the float) to 38 percent in Guyana, from 27 percent to 7 percent in Jamaica, from 132 percent to 21 percent in Nigeria, and from 24 percent to 1 percent in Sri Lanka; those gains were generally maintained or improved thereafter. 2/

In all five cases the interbank market expanded in terms of the volume of transactions, as transactions in the parallel market shrank and progressively became officially recognized. In fact, in all cases but Nigeria, exchange reforms have eventually led to the convergence of the parallel and official rates. In The Gambia, Guyana and Jamaica this has resulted from the elimination of virtually all exchange restrictions including those on capital transactions; surrender requirements no longer exist in Guyana and Jamaica and are not implemented in The Gambia. In Sri Lanka, the convergence of the parallel and official market rates has been achieved despite the existence of capital controls and surrender requirements for most exports; in this case, relatively tight domestic demand policies have been a key factor. It is noteworthy that the removal of capital controls in The Gambia, Guyana and Jamaica has not undermined the durability of the floating system. On the contrary, a liberal exchange regime with free capital movements may have been helpful in preventing private destabilizing speculation.

In Nigeria, the continued official restraints on the exchange market, as well as the variability in the restrictiveness of the fiscal and monetary policies, were reflected in substantial fluctuations in the parallel market exchange rate premium; this prompted the authorities to introduce new measures--especially the licensing of exchange bureaus to absorb the parallel market--in 1989. These further measures appeared not to have had the desired effect on the exchange rate premium, which increased, albeit moderately, through November 1992; as noted earlier, the modified interbank market exchange rate system was not effectively freed from remaining restrictions, which prevented the adjustment of the official exchange rate. 3/

1/ Based on the alternative series reported in footnote 1 of Table 2.

2/ In Guyana, the premium fell to an insignificant level, according to new information as indicated in footnote 2 of Table 2.

3/ Moreover, this problem does not appear to have been fully resolved by the further liberalization of the exchange system and the unification of the auction and interbank rates in March 1992.

Although no systematic data are available on the spreads between the buying and selling rates following introduction of the interbank exchange rate systems, there is some evidence to suggest that in all cases the spreads either fell considerably or stayed within reasonable limits. In The Gambia, the spread in the interbank market reportedly was around 2 percent, whereas that in the parallel market narrowed in a few months from over 8 percent to slightly over 2 percent. In Guyana, the spread in the interbank market narrowed to within 2 percentage points in a few months. A similarly reasonable spread was reported in the interbank market in Jamaica, despite some initial concerns. 1/

2. Developments in the external sector and the general economy

In both The Gambia and Nigeria, which introduced the new exchange rate system in 1986, external sector data point to an improvement in the current account of the balance of payments (although with a delayed effect in the case of Nigeria), and an improvement in reserves in relation to imports (Table 3). 2/ The overall balance of payments, by contrast, improved only in The Gambia, but not in Nigeria, where substantial private capital outflows appeared to have occurred in response to insufficient downward adjustment of the exchange rate and insufficient upward adjustment of the interest rate. 3/ All indicators suggest that the modified and more liberalized interbank exchange rate system introduced in Nigeria in 1989 had a positive effect on external sector adjustment in 1990: a sharp increase in the current account surplus, a further rise in the ratio of reserves to imports, and an improvement in the overall balance of payments; but preliminary data for 1991 indicate that there were no lasting positive effects, probably because of a lax fiscal policy stance. 4/ In the remaining three countries with more recent floating rate systems, there is some evidence to suggest that the new policies helped to correct the serious balance of payments pressures and distortions that had arisen from the preceding fixed exchange rate system. In Guyana, in particular, the switch to the new liberalized exchange rate regime was followed by a sharp improvement in the external sector.

1/ Through official action, the authorities in Nigeria limited the spread in the official market to a 1 percent maximum. Similarly, the spread was initially limited to only 0.08 percent in Sri Lanka, but this was raised in two stages to the more reasonable level of 1 percent by March 1992.

2/ In Nigeria this was largely due, however, to the decline in imports. This in turn reflected the decrease in the value of oil exports as a result of a substantial reduction in the price of oil, the major export of Nigeria.

3/ In The Gambia, relatively large capital outflows in the three-year pre-liberalization period were followed by moderate inflows or outflows in the three-year post-liberalization period.

4/ This remark also seems to apply to the most recent exchange reform (in March 1992) which was not complemented by an appropriate tightening of fiscal policy. This, together with remaining restrictions, prevented the reduction of the parallel exchange rate premium.

There is also evidence that exchange system reform was not the only element in determining the general performance of these economies; macroeconomic and other structural policies were also important determinants of the progress toward lowering inflation and increasing economic growth (Table 4). The available data for The Gambia and Nigeria, following the introduction of their 1986 systems, point to rather different outcomes. There was a substantial reduction in inflation in The Gambia, but no significant long-term gains in Nigeria, as a result of its lax domestic financial policies. In The Gambia, the broad-based reform effort helped maintain the growth momentum, while in Nigeria the rate of economic growth fluctuated widely both before and after the reforms, 1/ although it appears to have been strengthened on average after the reforms. In the three countries that introduced exchange system reforms in 1990--Guyana, Jamaica and Sri Lanka--inflation accelerated initially but, after about one year, it tended to decline. In these three cases there are early indications of a renewed growth impetus, with good prospects of being sustainable over the medium term.

V. Conclusions

In all five countries, the period before the introduction of the interbank exchange rate systems was characterized by a formally pegged exchange rate that was nevertheless periodically depreciated. Their weak economic situation reflected--although in various degrees--an unsustainable current account deficit and a virtual exhaustion of official reserves; an accumulation of arrears, and an intensification of exchange and trade restrictions; substantial inflation and faltering economic growth; and expansionary financial policies, with generally repressed financial sectors.

In all cases, a market-based floating exchange rate with a liberalized exchange system was introduced in order to provide a more efficient mechanism for determining the official rate and allocating scarce foreign exchange resources. The interbank market system was chosen over the auction system because it was considered to be more market-based, and because it minimized the scope for administrative interference with the exchange rate. However, a purely free-floating system was initially introduced only in The Gambia and Jamaica, and with a delay in Guyana. To minimize exchange rate instability, in Sri Lanka free floating was circumscribed within a fixed but adjustable 3 percent band on either side of a reference rate. In Nigeria, the authorities initially introduced a two-tier system comprising a first tier with an administered rate and a second-tier composite market comprising both a central bank auction for commercial banks and a floating interbank exchange market. Because of the regulatory restraints imposed by the authorities, this system created difficulties for the flexibility of the

1/ The major factor was the fluctuation in the production and prices of oil, not the exchange rate system. However, exchange rate adjustment helped reduce these fluctuations after the reform.

official and auction rates and for their unification with the interbank rate; there was, in addition, a parallel market rate. In the context of a process of liberalization, the official rate was first aligned with the auction rate; eventually the auction and interbank rates were also unified. The introduction of the interbank markets was combined in most cases with a significant liberalization of the exchange and trade system. Interest rate policies were also liberalized either before or soon after the introduction of the interbank exchange system and in most cases this helped to contain capital outflows.

The role of financial institutions in supporting the exchange system reforms was similar in all countries, but in Nigeria the highly regulated auction market administered by the Central Bank tended to impede, rather than promote, market competition. In all five countries, banks and other authorized exchange dealers were generally set free to negotiate the exchange rate between themselves and the public, although this freedom was constrained by some exchange regulations. In the case of Nigeria, regulations designed to prevent large financial institutions from cornering the foreign exchange market had a perverse effect on competition in this market. Prudential regulations and market supervision were developed to different degrees in the five countries, varying from reporting requirements to specific limits on foreign exchange working balances and open positions.

The introduction of the floating interbank exchange systems and the accompanying exchange and trade liberalization facilitated progress toward a unified regime in most cases. The convergence of official and parallel rates was not achieved in Nigeria because it retained some restrictions and because a sustained tight stance of financial policies was lacking. The interbank rates depreciated in nominal terms in all cases; in real terms an appreciation of the rate occurred only in Sri Lanka and it was small. The evidence suggests that there was some month-to-month volatility in the free-floating exchange rates. Finally, while only sketchy data are available on the spreads between the buying and selling rates, there are indications that in those countries in which such spreads were unregulated, they stayed within reasonable limits in the interbank market, and that those in the parallel markets were reduced. This suggests that there is generally no compelling need to regulate the spreads between buying and selling rates.

The effects of the exchange rate float and exchange liberalization on the external sector and, even more so, on the general economic performance are difficult to separate out from those of simultaneous reforms in other areas and from stabilization efforts. Also, as the interbank exchange systems were only recently introduced (in 1990) in Guyana, Jamaica, and Sri Lanka, the record is yet insufficient to examine with full confidence their effects on economic developments. There are, however, some indications that the economic gains from the floating interbank systems accrued more visibly to the countries that moved early and decisively to abandon previous restrictions--The Gambia, Guyana, Jamaica and Sri Lanka. By contrast, when the efforts were slow and hesitant with regard to exchange liberalization and macroeconomic stabilization (as in Nigeria), the country continued to

suffer from the distortions of multiple exchange rates and sharp fluctuations in inflation and output.

The main lessons that can be derived from the experience with interbank exchange rate markets in the five countries analyzed are as follows.

(i) Interbank exchange rate markets can operate relatively well with a minimum banking infrastructure. As indicated by the experience of The Gambia and Guyana, the existence of only a few banks does not constitute an effective impediment to the development of these markets, so long as there is an effective liberalization of the exchange and trade system to provide access to exporters and importers. Moreover, the authorities can successfully expand the breadth and scope of these markets by licensing nonbank financial intermediaries and other foreign exchange dealers and by authorizing them progressively to undertake a full range of foreign exchange transactions, subject only to prudential limits on foreign exchange working balances and open positions.

(ii) These markets can function in an integrated, efficient manner only if the authorities remove legal and institutional impediments to the free operation of these markets including, in particular, exchange restrictions both on current international transactions and on capital transfers. As shown by the experience of Nigeria with a composite exchange rate system, segmented exchange markets can continue to exist if regulations prevent the free flow of resources across market participants. Moreover, any residual official restrictions that may remain will likely give rise to the continued existence of parallel, informal markets. These parallel markets will be the more active, and the rates in them the more divergent from the official rates, the more restrictive is the exchange system and the more inadequate the restraint in macroeconomic and financial policies.

(iii) The authorities can foster the development of interbank foreign exchange markets by introducing appropriate prudential regulation and supervision over exchange transactions. Direct regulation of the market by means of market shares or similar arrangements to promote competition is not advisable because it tends to be counterproductive for the flexibility of the exchange rate. A more appropriate policy, as noted above, would be the licensing of additional foreign exchange dealers.

(iv) In addition to an efficient exchange rate system, a simple and efficient trade system will also be necessary for the optimal adjustment of the external sector in order to derive maximum benefits in terms of economic growth.

(v) Finally, the floating of the exchange rate and the liberalization of the exchange system--although helpful in balancing the external sector--are not substitutes for the appropriate conduct of macroeconomic policies. In the absence of adequate domestic financial restraint to avoid excess demand pressures and progress toward the free and competitive determination of domestic interest rates, exchange rate floating

will lead only to a depreciating exchange rate and continued inflation, with adverse consequences for long-term growth.