WP/95/90

INTERNATIONAL MONETARY FUND

Monetary and Exchange Affairs Department

Financial Sector Reform in Jamaica During 1985-1992
Possible Lessons for the Caribbean 1/

Prepared by David Marston 2/

Authorized for distribution by Tomás J. T. Baliño

September 1995

Abstract

This paper reviews the Jamaican experience with indirect instruments and contrasts this with the currency board type arrangements of the common currency area governed by the Eastern Caribbean Central Bank (ECCB). Reforms in Jamaica improved intermediation and banking efficiency, but a weak fiscal position and interest rate caps undermined the effectiveness of indirect instruments in attaining monetary control. The apparent stability amongst members of the currency union may mask fiscal pressures. In most Caribbean countries, problems of quasi-fiscal pressures on money supply, and disintermediation due to some regulation, are evident. Resolving these issues are necessary to facilitate the reforms being pursued.

JEL Classification Number:

E52 and E58

1/ This is a revised version of an earlier paper that was prepared and presented at the XXVI Annual Conference of the Regional Programme of Monetary Studies (held in Kingston, Jamaica on November 23-26, 1994).

2/ The author would like to thank Messrs. Tomás J. T. Baliño, Alain Ize, Edgar Zamalloa, Robert Rennhack, Olav Gronlie, Javier Hamann, Ms. Elizabeth Milne, and Ms. Lelde Schmitz for helpful comments on the earlier draft.

Table of Contents

Summary

There have been two distinct phases in the use of indirect instruments in Jamaica. The first encompassed the period 1985-1989. In this period, interest rate controls were removed, a program to remunerate reserve requirements was instituted, and the liquid assets ratio (LAR) was phased out. Open market type operations replaced credit ceilings as the primary instrument of control. The period 1989-1991 saw significant reversals, as credit ceilings were reintroduced and the LAR reimposed in response to a surge in credit and exchange rate pressures. A second phase in using indirect instruments was started in late 1991, coincident with the adoption of a more liberal foreign exchange system.

The paper argues that while it was fairly simple to remove interest rate restrictions on the intermediation process in Jamaica, consensus on policy induced interest rate movements has been more difficult. Because of this dichotomy, while indicators of intermediation and banking efficiency improved consequent on the reforms, monetary control was more elusive, owing to weak fiscal performance and quasi-fiscal pressures on the monetary policy. In contrast, from the standpoint of monetary control, greater stability has been associated with the currency-board type arrangement of the ECCB. The paper notes, however, that this outturn masks fiscal pressures amongst some member countries of the currency union, which while not monetized, have been largely financed through arrears. This mode of financing inhibits market development and could conceivably threaten the union.

Some of the issues which affected Jamaica's use of indirect instruments (quasi-fiscal pressures on money supply, disintermediation arising from unremunerated reserve requirements and interest rate caps, and inappropriate policy mix in the context of "fixed" exchange rates), are also evident in other Caribbean countries. The paper argues that independent of the conclusion of the current debate in the region on currency regime, the resolution of these issues are crucial to the success of financial sector reforms now being pursued in these countries.

I. Introduction

Approaches to monetary management in the English-speaking Caribbean evolved from the commonly shared colonial experience. Until relatively recently, currency and exchange arrangements were linked in a very direct way to the pound sterling. At the turn of the century, the principal medium of exchange in the West Indies was United Kingdom currency. This arrangement gave way to the authorization of Colonial governments to issue currency notes via Currency boards: the Board of Commission of Currency in Jamaica was established in 1939; and, the British Caribbean Currency Board (BCCB) was established in 1950 with the sole right to issue currency for Barbados, British Guiana, the Leeward and Windward islands, and Trinidad and Tobago. 1/ These Boards issued British Caribbean notes and coins, fully backed by sterling. As the countries gained independence these arrangements were replaced by the establishment of central banks in the post 1960 period; Jamaica 1960; Trinidad and Guyana 1965, and Barbados 1972. The BCCB was dissolved and replaced by the Eastern Caribbean Currency Authority (ECCA) in 1965, and in 1976, after a period of depreciation of the pound sterling, the link between the Eastern Caribbean (EC) dollar and the pound was broken and the EC dollar was pegged to the U.S. dollars at the cross rate prevailing at the time. The ECCA was subsequently transformed into a central bank (the ECCB) in 1983, with some relaxation in the foreign exchange cover requirements of its currency issue.

All Caricom currencies were pegged to the U.S. dollar in the 1970's and the EC, Barbados and Bahamian dollars have maintained a fixed parity since then. Subsequent disequilibria in Jamaica, Guyana, and Trinidad led to devaluations (Chart 1). Economic performance among member countries has been varied, though notably, the members of the ECCB and, up through the 1980's Barbados, have enjoyed fairly low inflation and positive growth.

Early and subsequent currency board type arrangements in the EC have operated within strict rules. ECCB credit to member governments has been restricted and a statutory foreign exchange cover has been maintained with a fixed parity. In contrast, other central banks of the region have at various times been in breach of the credit limits on accommodation to Government established by their Acts. Through the 1980's, all central banks set interest rates administratively, in particular a floor deposit rate, and in Barbados and Jamaica a maximum lending rate; utilized global and/or activity specific credit ceilings (Table 1); engaged in subsidized refinance operations designed to stimulate particular sectors; and operated various exchange rate guarantee schemes. The first of these central banks to attempt a comprehensive break with this tradition was the Bank of Jamaica (BoJ).

1/ See McClean (1975).

Table 1. Modalities of Monetary Control in the Caribbean (Pre-Reform)

	Limits on Credit to Government	Reserve Requirement	Liquid Asset Ratio (LAR)	Interest Rate Controls	Credit-Ceilings	Reserve Cover
		(In percent of Deposit Liabilities)				
Jamaica	• 30 percent of estimated revenue of current year • Security holdings-40 percent of estimated expenditure	20	24	FDR 1/ MLR 2/		--
Guyana	• 15 percent of average revenue of three previous years • Security holdings-30 percent of ordinary revenue.	6 demand 5 other	41	FDR	--	--
Trinidad and Tobago	• 15 percent of revenues • Security holdings-seven times capital		16 banks 5 nonbanks	FDR	--	--
Barbados	• 10 percent of expected revenue • Maximum purchase of B$75 million in primary issues	8	23	FDR MLR	3/	--
ECCB	• Advances: 5 percent of three previous years' revenue • Securities-Tbills: 10 percent of estimate revenue in current year; Other securities: 15 percent of ECCB currency issue	6	--	FDR		60

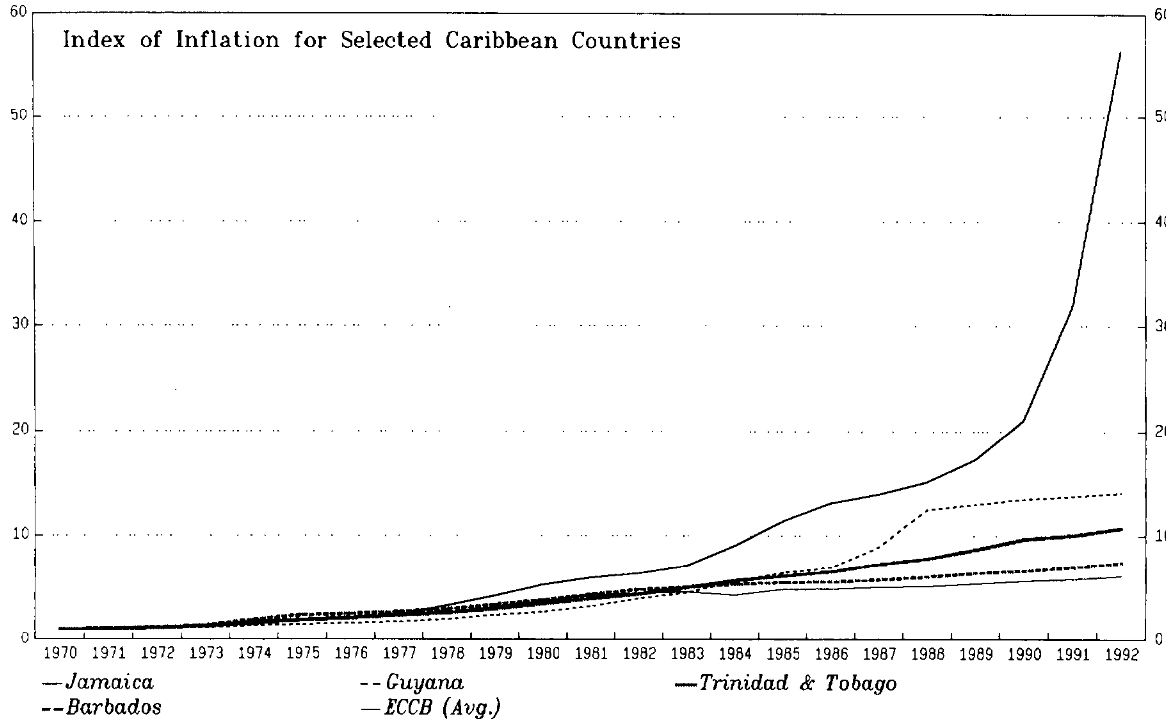
Source: Data from central bank laws and annual reports of survey countries.

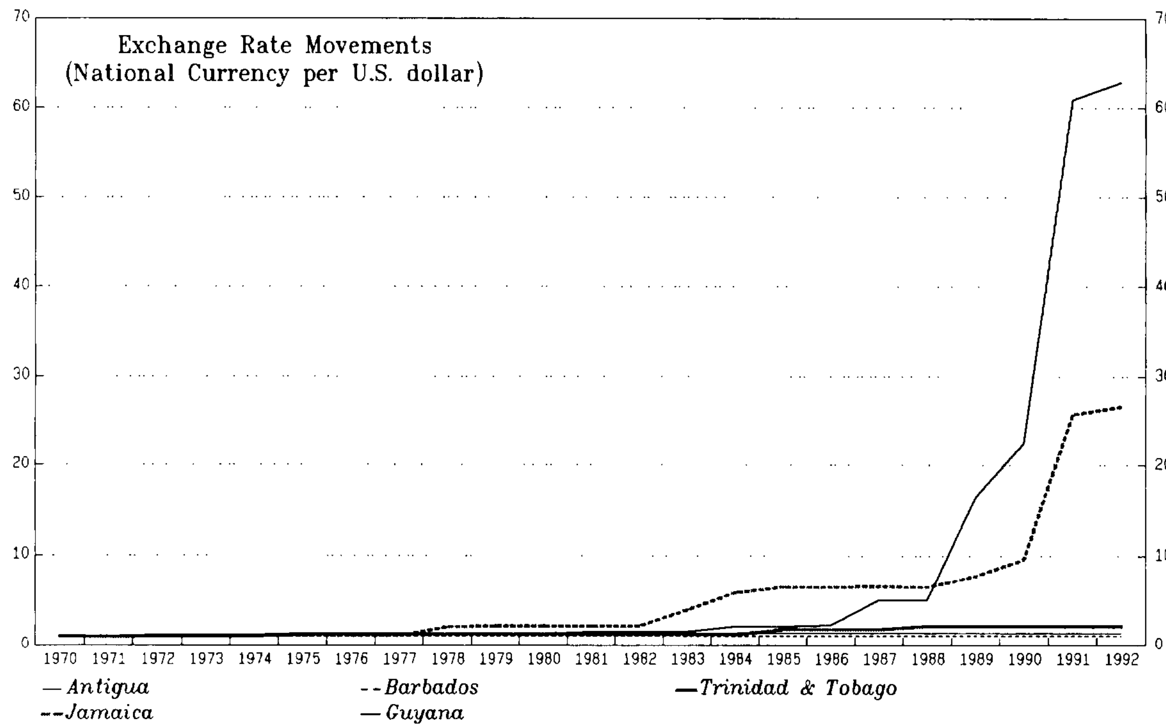
1/ FDR = Floor Deposit Rate.

2/ MLR = Maximum Lending Rate.

3/ Provision applied through moral suasion to achieve sectoral distribution.

CHART 1
INFLATION AND EXCHANGE RATE TRENDS





Source: International Financial Statistics.

This paper reviews the Jamaican experience with indirect instruments over the period 1985-1992 and seeks to identify possible lessons for other Caribbean countries. The paper concludes that a weak fiscal position and attempts to cap interest rates undermined the effectiveness of indirect instruments. Notwithstanding, the reforms improved intermediation and banking efficiency, though growth in the number of financial institutions was predicated on different regulatory requirements between commercial banks and nonbanks. From the standpoint of monetary control, greater stability has been associated with the currency-board type arrangements of the ECCB. The paper notes, however, that this outturn masks fiscal pressures amongst some member countries of the currency union, which while not monetized, have been largely financed through arrears. This mode of financing inhibits market development in these countries and could conceivably threaten the union. Some of the issues which affected Jamaica's use of indirect instruments (quasi-fiscal pressures on money supply, disintermediation arising from unremunerated reserve requirements and interest rate caps, and inappropriate policy mix in the context of "fixed" exchange rates), are also evident in other Caribbean countries. The paper argues that independent of the currency regime adopted, a resolution of these issues are crucial to the success of financial sector reforms now being pursued in these countries and monetary control.

Chapter II overviews the reform process in Jamaica during 1985-1992. Chapter III evaluates the efficacy of these instruments in attaining monetary control, and the impact of their use on intermediation and competition in the financial system. As a contrast, Chapter IV briefly looks at the alternate experience of the currency-board type arrangements of the ECCB. Chapter V reviews developments in Barbados, Guyana, and Trinidad to highlight potential issues in monetary management and market development and relates these to the experience of Jamaica and the ECCB. Finally, some lessons are drawn from the experiences of Jamaica and the ECCB in Chapter VI.

II. Reforms in Monetary Management in Jamaica

There have been two distinct phases in the use of indirect instruments in Jamaica. The first encompassed the period 1985-1989. In this period, interest rate controls were removed, a program to remunerate reserve requirements was instituted, and the liquid asset ratio (LAR) was phased out. Open market type operations replaced credit ceilings as the primary instrument of control. The period 1989-1991 saw significant reversals, as credit ceilings were reimposed and the LAR reintroduced in response to a surge in credit and exchange rate pressures. A second phase in using indirect instruments was started in late 1991, coincident with the adoption of a more liberal foreign exchange system.

a. The reform process: pre-reform environment

In 1985, Jamaica attempted to move from direct to indirect instruments of monetary control for the first time. Prior to this, the system of monetary management had involved: global credit ceilings and directed credit operations through sector specific refinance windows operated by the BoJ and activity specific credit ceilings; a statutory saving deposit floor rate, and a maximum mortgage lending rate; interest subsidies were given not only through refinance operations but also through specialized agencies; a non-remunerated cash reserve ratio (which differed between commercial banks and nonbank financial institutions) and a noncash liquid asset requirement.

This system of monetary management existed in conjunction with rigid restrictions on both current and capital account transactions, and a fixed exchange rate through 1983. Problems of large fiscal deficits (equivalent to 16 percent of GDP on average over the period 1981-1985) were aggravated by a failure to adjust to foreign exchange shortfalls arising from a marked contraction in the bauxite/alumina industry, the country's major export sector. 1/ Despite some monetary tightening, through increases to the floor deposit rate and the cash reserve ratio, the official exchange rate became overvalued and by 1982-1983 a parallel foreign exchange market had assumed importance. After a series of dual exchange rate arrangements, the rate was eventually unified in November 1983, when a competitive auction mechanism was introduced. This mechanism allowed the exchange rate to float through September 1985, when the BoJ intervened to revalue the currency.

The introduction of a competitive price foreign exchange auction in 1984 was accompanied by a dismantling of import controls that had comprised licenses and quotas. A negative import list approach was adopted, and a schedule for eventual elimination of the list was outlined. With respect to monetary management, it was recognized that existing arrangements were ineffective in the more market-based economic environment. Commercial banks were circumventing credit ceilings by shifting loans and deposits to nonbank affiliates, stimulated by differential reserve and capital requirements on nonbanks. Further, the LAR, which required investment in treasury bills (which were at times in insufficient supply) had resulted in low yields on government paper and high interest rates on private sector loans which the authorities considered to be inconsistent with the policy objective of stimulating private sector led growth.

1/ Export receipts declined from a gross value of US$732 million in 1980 to US$275 million in 1985; net foreign exchange export earnings declined from US$380 to US$190 million over the same period.

b. First reform attempt--1985 to 1989

A program to reform monetary management was outlined in September 1985. The aim was to at gradually liberalize interest rates, remove interest distortions and utilize indirect instruments of monetary control. Initially this involved the removal of interest rate restrictions on lending (September 1985) and the indexation of the minimum saving deposit floor rate to the market determined time deposit rate (October 1985). Simultaneously, credit ceilings were eliminated (October 1985) and open market type operations using a BoJ certificate of deposit were instituted as of November 1985, in the context of a reserve money program (Table 2).

In November 1985, to address interest rate distortions the BoJ announced a three year schedule for the elimination of the LAR.in November 1985. As well, in February 1986, the BoJ began to pay interest on 15 percent of banks' required reserves and this proportion was doubled in 1988.

In support of these operations, the internal interest rate structure of the BoJ was revised and in May 1986, a formal refinance window to provide lender of last resort support was reactivated. In addition to this window, the BoJ operated a liquidity support facility (LSF), where securitized short-term lending was provided. 1/ Further, penalties for breaches of reserve requirements were introduced and a more penal rediscount policy was adopted to discourage the early encashment of government securities at the BoJ, and encourage secondary trading.

With respect to other instruments used in this first phase of indirect monetary management, the BoJ in 1985 re-introduced a pre-shipment financing facility and a Bankers Export Guarantee facility, to channel credit to the export sector at preferential but indexed rates of interest. 2/ The persistence of excess liquidity, however, obviated the need for active use of these facilities and by 1989 they were wound down as outstanding credits matured. Also, though used on an ad-hoc basis, the BoJ at times (in consultation and through the Ministry of Finance), transferred public enterprise deposits from the commercial banks to the BoJ. This was used primarily to deal with lumpy liquidity flows caused by transactions of the

---

1/ The rules of this facility were that: (a) lending could not exceed three working days; (b) a bank could apply no more than two times per month; (c) a third application in the subsequent month would trigger inspection by the Supervision department.

2/ Both facilities had operational ceilings based on the liability base of the applicant bank.

Table 2: Jamaica: Instrument Setting

Instruments	Pre-reform	1st Reforms 1985-89	Reversal 1990	2nd Reforms 1990-93
Interest rates	Saving deposit floor and maximum mortgage lending rate	Saving deposit rate indexed to market determined time deposit rates, and loan rate restrictions eliminated	Indexed floor replaced by step adjustment in floor	All rates market determined
Credit ceilings	Based on market shares and applicable to banks and nonbanks	Eliminated	Reintroduced	Eliminated
Open market operations	None	Active use with BOJ certificates of deposit	Active use	Active use
Repurchase agreements	None	None	Used infrequently	Active use
Reserve requirement	20 percent banks, 0 percent nonbanks--unremunerated	20 percent banks, 5 percent nonbanks--partial remuneration	20 percent banks, 15 percent nonbanks--remuneration discontinued	25 percent banks, 15 percent nonbanks, and 20 percent FC deposits
Liquid Assets requirement (noncash)	24 percent banks	Eliminated	Reintroduced at 13.5 percent	Increased to 30 percent
Other instruments				
Equity Investment Bonds	None	Active use(linked to debt conversion scheme)	Active use	Active use
Sectoral rediscount	Pre and post shipment export facility and selective sector rediscount at subsidized interest rates	Eliminated	--	--
Government deposit transfer	None	Used infrequently	Used infrequently	Used infrequently

monopoly oil importing public enterprise. Finally, in 1987, the Government of Jamaica initiated a program of external debt conversions. To sterilize the liquidity arising from debt redemption, an Equity Investment Bond was issued to non-banks to fund them. 1/

c. Transition 1989 to 1990

Credit ceilings were reintroduced in September 1989 in response to mounting exchange pressures and credit expansion. As well, banks were advised of the reimposition of the LAR in October, and in November the indexation of the minimum deposit floor was replaced with a step adjustment of the savings deposit rate by 5 percentage points. In January 1990, the reserve requirement on banks was increased, and the previous program of paying interest on a proportion of the requirement was discontinued.

In January 1991, credit ceilings were abandoned because the BoJ practice of granting exemptions, as well as circumvention by banks through off-balance sheet transactions, had made them ineffectual. The LAR (the scheduled removal of which had been completed in March 1988) was reintroduced, and progressively increased to 33.5 percent by January 1991, before being again eliminated in April 1991.

d. Second reform attempt--1990 to 1992

The saving deposit floor rate was eliminated in October 1990, and with the removal of credit ceilings and the LAR in early 1991, a second phase of management through indirect instruments began. In 1991, the BoJ initiated reverse repurchase transactions, by modifying the liquidity support window, the rules of which had been applied loosely. Further, the rediscount rate began to be adjusted regularly and a volume ceiling on BoJ rediscounting was instituted to encourage secondary trading rather than borrowing from the BoJ. Finally a program to equalize the reserve requirements between commercial banks and nonbank financial institutions at levels close to the higher requirement applied to the banks, progressively reduced the liquidity of those institutions and reduced the incentive for disintermediation.

III. Indirect Instruments--An Evaluation

1. Monetary control

The move to indirect instruments was initiated in a context of a series of stabilization programs that sought to use the exchange rate as a nominal anchor. As a safeguard, in programs after 1987, a trigger mechanism was introduced whereby there would be automatic exchange rate adjustment for any appreciation of the Jamaican dollar beyond a threshold. In practice,

---

1/ Bonds were of 5-7 year maturity and tradeable, and were offered on a tender basis.

however, a fixed exchange rate regime was adopted, despite the use of an auction mechanism for rate determination. This fix at US$1=J$5.50, was maintained from 1985 to 1988 in spite of sustained demand pressures in the economy. 1/

Consumer price increases, which had averaged 24 percent per annum from 1983 to 1985, fell to average 9 percent during 1986-1988. This abatement was initially achieved through a tightening of domestic policies in 1985, but was sustained in part through a cross subsidization program funded by savings from the fall in international oil prices. 2/

The underlying demand pressures throughout the period were in part reflective of an ongoing fiscal imbalance. While the overall public sector deficit was reduced sharply from a high of 20 percent in 1983 to 5.5 percent of GDP in 1986, there was little further improvement during 1986-1989. The reduction in the deficit primarily reflected an improvement in the central government's position: however, the tighter stance of monetary policy which this entailed was eroded by the rapid increase in the losses of the BoJ. Whereas the central government reduced its net indebtedness to the BoJ by J$2.0 billion in the 1985-1988 period, the cumulative cash losses of the BoJ increased by J$5.2 billion. 3/ Thus, despite tax reform and expenditure measures, the Central Government's position improved partially by shifting part of the fiscal burden to the BoJ. Another source of improvement was one-off divestment of public assets, which averaged 2 percentage points of GDP in 1987 and 1988.

Notwithstanding the improvement in the Central Government's position with the BoJ, there were substantial intra-quarter and intra-year variation in BoJ accommodation of the Government. Both quarterly and yearly budget

---

1/ Throughout the period there were instances of auction arrears with deliveries to successful applicants delayed by up to four auctions. By 1986, this included the exclusion of selected bidders (selected on the basis of relative size of foreign exchange demand) from the auction, whose demand was then settled on a medium-term basis. To augment further the foreign exchange supply, the authorities pre-sold US$190 million in accounts receivable; undertook US$154 million in exceptional refinancing; and, divested assets in foreign currency amounting to US$154.6 million in the period 1985-1989.

2/ Electricity prices for residential consumers were reduced, but those for commercial/industrial users were increased. Part of the gains accruing to the electricity company were used to subsidize consumption of basic foods, the controlled prices of which were lowered by 20 percent.

3/ These losses reflected: (a) the increased expenditure for exchange subsidies paid to customers with exchange guarantees; (b) exchange losses on official debt incurred in the settlement of payment arrears and debt service payments, after the devaluations during 1983-85; and increasingly, (c) the cost of central bank securities used in open market operations and interest payments on required reserves.

expenditures in Jamaica are typically front-loaded and tax receipts and reimbursable project flows back-ended. Primary issues of government securities on the other hand, constrained by domestic debt ceilings set by Parliament, in the main, covered only maturing bills and interest. The BoJ, therefore, provided budget financing with intra-period financing fluctuating by up to three points of GDP per quarter. While in principle open market operations could offset such swings, there were difficulties in achieving monetary targets. BoJ accommodation, while partially offset by revenue flows towards the end period of the budget, was not always repaid, due to mismatches in the receipt of reimbursed donor inflows. Current period accommodation did not always coincide with reimbursement for past period expenditures, and very often did not result in reimbursement at all, as budget execution was not specific to reimbursable projects. Hence, despite offsetting open market operations intra-period, there was an inherent bias towards interest rate pressure due to higher domestic borrowing and exchange rate pressures due to the nonreceipt of foreign financing (in cases due to lack of counterpart funds).

In this context of a fixed exchange rate and a weak underlying fiscal position, the newly acquired indirect monetary instruments were applied bluntly and at times inconsistently (Table 3). Chart 2, Period 1, presents a synopsis of the results of this first attempt at monetary control through indirect instruments. An expansion in the Net Domestic assets of the BoJ and a conversion of excess liquidity to credit expansion, 1/ did not consistently elicit an appropriate interest rate adjustment. The result was that there was need for sustained extraordinary support to maintain Net International Reserve levels. With a sharp acceleration in the NDA in 1988, there was a loss of reserves and accumulation of official foreign arrears which lead to further extraordinary foreign borrowing. These fundamentals, coupled with speculation arising from a change in political administration and some disjuncture in policy direction, resulted in increased demand for foreign exchange.

1/ The effectiveness of BOJ Certificate of Deposit placement as a monetary instrument was in part undermined by the interest rate strategy pursued. Certificates of Deposit were initially offered based on an interest rate tender, but in May 1986 this system was replaced by a volume tender where interest rates on certificates were managed downwards. There were difficulties in absorbing excess liquidity at these lower interest rates and the result was a sharp expansion in private lending from an annual rate of 10 percent in 1985 to average 33 percent in 1987-89. By mid-1888, interest rate tenders were resumed albeit with implicit interest rate caps.

Table 3. Jamaica: Factors Affecting Reserve Money

From 1985 to 1992

(Change as percent of reserve money at beginning of period)

	1985	1986	1987	1988	1989	1990	1991	1992
Autonomous factors								
Net foreign assets	27.0	18.7	46.0	15.7	-18.7	26.1	3.1	47.4
Net claims on publ. sec.	-49.2	-6.6	-73.3	-19.4	-27.8	-38.7	-83.8	-116.4
BoJ losses	67.2	50.9	40.9	43.7	37.1	38.8	55.5	55.2
Other	21.4	--	9.3	4.0	19.2	-11.1	85.6	-39.0
Policy factors								
Net credit to banks	0.3	-1.4	5.4	22.5	8.4	-22.3	-1.2	--
OMO	-28.8	-37.9	-1.2	-70.7	-36.2	-6.7	-52.7	26.2
Reserve money	26.5	32.4	16.6	32.3	10.5	25.1	56.6	84.8

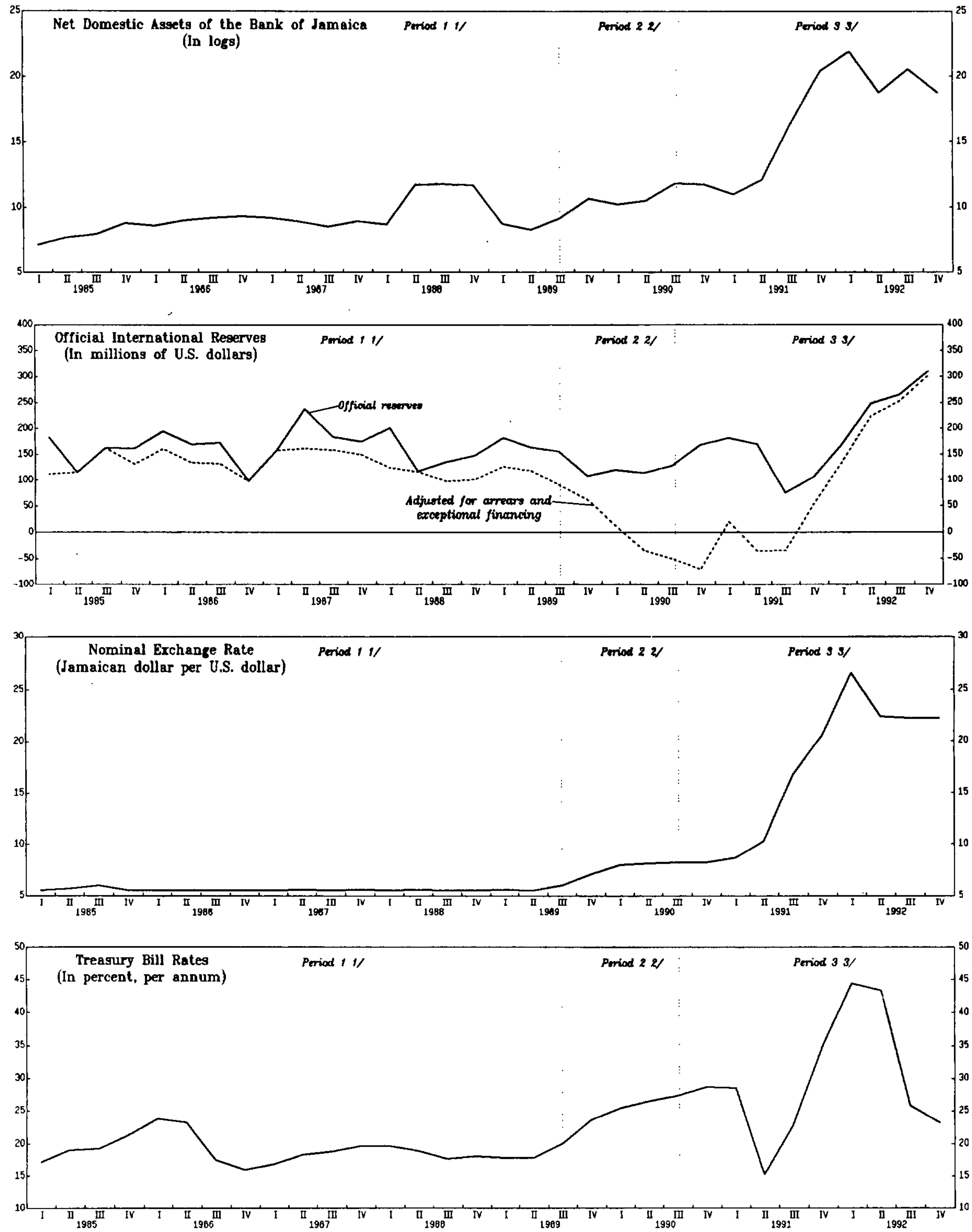
Source: Bank of Jamaica.

1/ Positive sign indicates an increase in assets or a decline in liabilities, an expansionary factor; negative sign indicates a decrease in assets or an increase in liabilities, a contractionary factor.

2/ Includes interest payments on BoJ Certificates of Deposit.

3/ Net placements of BoJ Certificates of Deposit.

CHART 2
JAMAICA
ECONOMIC INDICATORS



Sources: Bank of Jamaica; and staff estimates.

1/ Period 1 = First attempt at indirect instruments; with auction system.
2/ Period 2 = Transition or return to direct instruments; step adjustments to exchange rate.
3/ Period 3 = Second attempt at indirect instruments; exchange market liberalization interbank system.

Increased offers of Certificates of Deposit were largely undersubscribed as targeted cut-off interest rates were inappropriate given market expectations. 1/ It was not until September 1989 that increased penalties on encashment of government securities were imposed, and new, more restrictive, guidelines on the use of the LSF were set. As exchange pressures mounted, and with the diversion of flows from the official auction, the exchange rate slipped.

Notwithstanding the reintroduction of direct controls, the exchange system progressively unravelled over the period (Chart 2, Period 2). Despite the suspension of the foreign exchange auction system in November 1989, and the re-introduction of an official peg, demand pressures continued, and the result was further accumulation of external arrears. 2/ This, combined with increased diversion to a street market, precipitated the liberalization of the exchange system and the establishment of an interbank foreign exchange market in September of 1990. The exchange rate quickly depreciated as agents moved away from local currency into U.S. dollars and foreign currency accounts. By March of 1992, the Jamaican dollar had depreciated in real terms by 46.5 percent with respect to its pre-liberalization level in 1990.

However, in the period April-May of 1992, the currency appreciated in nominal terms from US$1=J$29.6 to US$1=J$22.5. Annualized monthly inflation, which had risen to 80 percent in December 1991, moderated sharply to 40 percent by end 1992. The primary factors underlying the stabilization were a substantial fiscal tightening in the first two quarters of 1992, and a sharp increase in nominal interest rates which resulted in an interest differential in favor of domestic liabilities. In achieving this, approximately J$4.0 billion in Certificate of Deposits were auctioned with stop out rates as high as 20 percent in real terms. Liquidity conditions also tightened due to the narrowing of the reserve requirement differential between banks and nonbanks. Through July 1989, the reserve differential between banks and nonbanks was 15.5 percentage points, but was reduced to 8 percentage points in June of 1992. The large differential had undermined the effectiveness of monetary policy as even when the BoJ reduced the amount of reserves available to banks, credit could still expand through a shift in deposits from banks to nonbanks. Further, having lower reserve requirements NFIs could pay higher interest rates than banks and increase their market share. Banks themselves established NFI's to indirectly benefit from the lower reserve and capital requirements applied to the NFI's. The narrowing of the reserve requirement differential reduced this tendency. The combined

---

1/ Further, what absorption occurred was partly nullified by increased accommodation of commercial banks arising from a breakdown in the management of the LSF and inadequate rates on the facility.

2/ At the spot rate, bids were accepted at a fixed exchange rate but put in a queue. The result was the accumulation of commercial payment arrears amounting to US$177 million by August 1990, which had a guaranteed exchange rate.

effect this and the other measures, was to increase interest rates, and this precipitated strong private capital inflows throughout 1992 and a reconversion to domestic deposits from the accumulation of foreign currency deposits.

Assessment

The efficacy of indirect instruments in attaining monetary control was closely related to the overall stance of policy. Despite the sharp improvement in central government finances prior to the reforms of 1985, there were still significant fiscal imbalances through 1991. This was aggravated by the injection of liquidity into the banking system through the quasi-fiscal losses of the BoJ, and an exponential growth in interest payments on certificates of deposit.

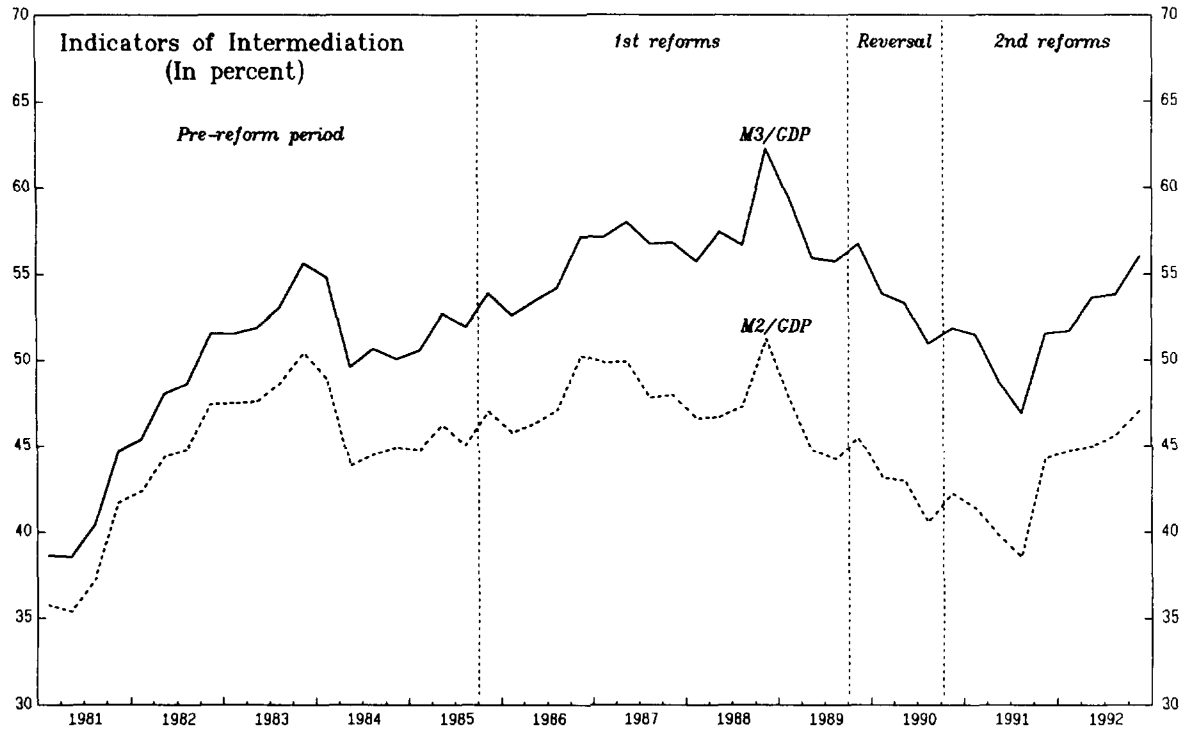
To reduce interest costs of open market operations, the BoJ increased unremunerated cash reserve requirements. However, this was insufficient to eliminate liquidity pressures, and as the higher reserve requirement reduced the money multiplier, sterilization operations required a larger issue of certificates per unit of broad money absorbed, increasing the marginal cost of open market operations still further. In addition, an aggressive open market effort as was adopted in 1992, raised nominal interest rates, which in turn led to concerns about growth, and prompted the reintroduction of unsustainable interest rate caps. This tendency to flip-flop between direct and indirect instruments of control was a direct consequence of sustained fiscal and quasi-fiscal disequilibria.

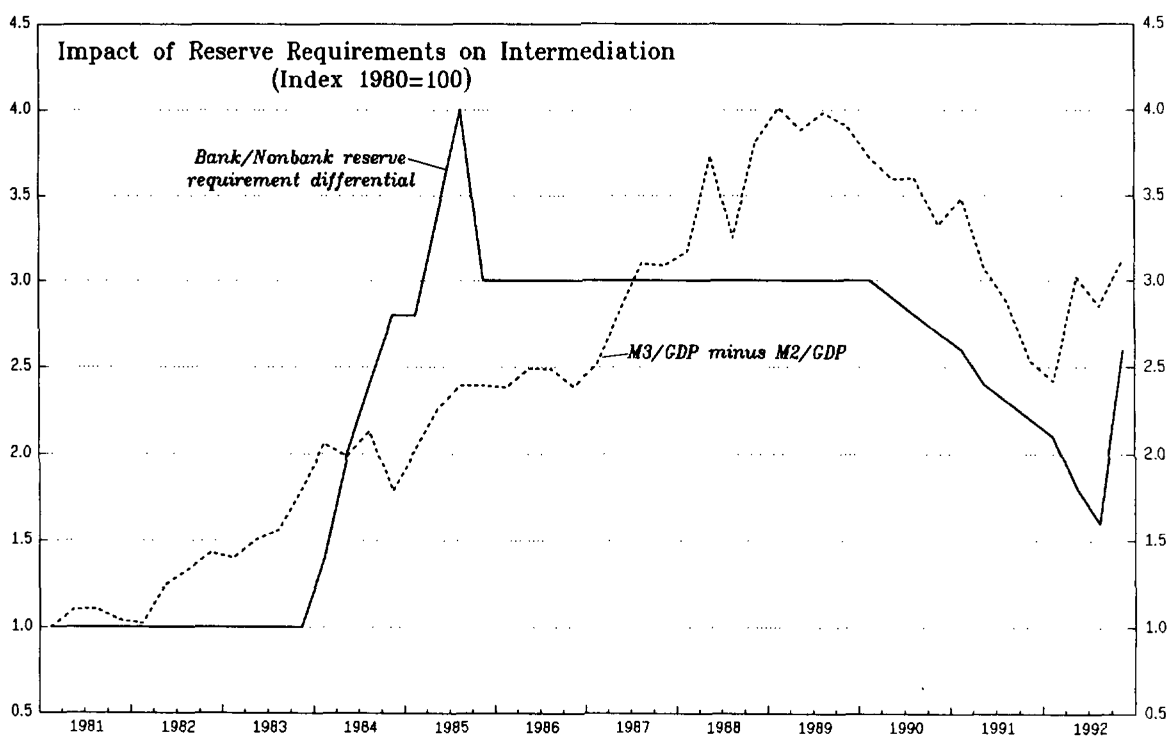
2. Impact of reforms on intermediation

The pattern of financial intermediation over both phases of indirect monetary management evolved in tandem with the experience in monetary control and in response to the reforms (Chart 3). The M2/GDP and M3/GDP (M3 defined to include nonbank deposits) indicators of relative size of the financial system and private savings grew through 1983, but declined in 1983-1984 consequent on rising inflation, negative interest rates, and currency substitution. With the reforms from 1985 to 1989, a stable exchange rate, and low inflation, these ratios grew strongly, peaking in 1988 with the intermediation of post-hurricane reinsurance inflows. The loss of control and currency speculation in 1989, resulted in a substantial decline in the ratios during 1989-1991, but with stabilization, these ratios resumed pre-reform levels in 1992 (Chart 3).

Intermediation through commercial banks increased throughout the period with cessation of the selective rediscounting facility of the BoJ. However, nonbank intermediation became increasingly important as shown in the M3/GDP ratio owing to the differential reserve ratio and capital requirements which gave nonbanks a competitive edge over banks. This tendency moderated after 1990, with the program for reserve equalization, and the announced intention to increase the capital requirements of nonbanks (Chart 3).

CHART 3
JAMAICA
MONETARY SECTOR DEVELOPMENTS





Sources: Bank of Jamaica; and staff estimates.

Private sector credit as a proportion of total credit grew steadily owing to the removal of credit ceilings, interest rate caps and the reduction of the LAR (Table 4). These rates of growth were above targets in the 1987-1989 period as the lowering of the LAR permitted conversion out of low-yielding government paper into loan assets. However, credit growth slowed in 1990 as credit ceilings were reintroduced. With the removal of these ceilings and increased demand for foreign exchange to liquidate accumulated arrears, credit surged again in 1991, but moderated in 1992 as loan demand fell owing to the stabilization effort. Income from loans which had been repressed by credit ceilings and maximum lending rates in the pre-reform period, increased sharply in the reform period and generally followed the same path as credit.

The reform process had a generally positive impact on banking efficiency. Net interest spreads fell from an average of almost 9 percentage points in the pre-reform period, to less than 8 percent in the 1985-1989 period. This reflected at least in part, the remuneration of reserve requirements and increased competition made possible by the removal of credit ceilings in 1985. The decision to cease paying interest on reserves in 1990 and, the re-introduction of the LAR and credit ceilings during 1991, increased spreads once again. These peaked in 1992, when despite the removal of credit ceilings and the LAR, reserve requirements increased by 5 percentage points.

While the data indicates that the nonbank sector increased its holdings of government paper, the development of the securities market over both periods of reform was constrained by the almost non-existence of a secondary market for securities. One major impediment to secondary market activity was the willingness of the BoJ to make a market, albeit on an artificial basis. The price quotes of the BoJ were below market levels for long periods which resulted in trades being primarily with BoJ. The active participation of the BoJ was partly in response to the low capitalization of brokers, which constrained their ability to handle large trades. A further impediment to secondary activity related to an accounting practice which did not permit some holders to recognize temporary decreases in value below par if the security was held as a long term asset. Finally, tax laws provided for differentiated tax rates for certain classes of investors, which tended to complicate the pricing of trades across holders of securities.

Assessment

The reforms had a generally positive effect on intermediation and banking efficiency. The sharp increase in the number of nonbank institutions, however, was predicated on the different regulatory requirements between commercial and nonbank institutions. While this resulted in increased competition, at one point, there was some instability in the financial system when one nonbank folded in 1987. Further, as the market deepened, new products and new ownership structures provided new challenges and problems to the existing regulatory framework. A new Financial Institutions Act was not passed until December 1992.

Table 4. Jamaica: Indicators of Intermediation--Competition

	Pre-Reform 1981-84	First Reform 1985-89	Reversal 1990	Second Reforms 1991	Second Reforms 1992
Intermediation					
M_2/GDP 1/	45.7	47.7	42.2	44.2	46.9
M_3/GDP 2/	50.3	56.6	51.8	50.9	56.0
Private credit/Domestic	35.4	63.9	121.1	166.2	127.7
credit	41.7	43.4	47.0	48.0	55.0
Commercial bank assets/Banking system assets					
Competition					
M_2/M_3	91.2	84.3	82.0	85.8	84.0
Net interest spread	8.8	7.7	7.8	10.6	19.7
Loan income/Total income	6.3	25.7	31.4	28.3	12.0
Securities market					
Paper holdings by nonbank/Total					
• Treasury bills	10.7	41.6	57.7	68.0	64.0
• Certificates of Deposit	n.a.	n.a.	40.4	53.1	51.0

Source: Bank of Jamaica.

1/ M2 defined as currency in circulation plus demand deposits and quasi-money.

2/ M3 defined as M2 plus deposits of nonbank financial intermediaries.

Assessment

The reforms had a generally positive effect on intermediation and banking efficiency. The sharp increase in the number of nonbank institutions, however, was predicated on the different regulatory requirements between commercial and nonbank institutions. While this resulted in increased competition, at one point, there was some instability in the financial system when one nonbank folded in 1987. Further, as the market deepened, new products and new ownership structures provided new challenges and problems to the existing regulatory framework. A new Financial Institutions Act was not passed until December 1992.

IV. The ECCB--Experience of Currency Board Type Arrangements

In contrast to the difficulties experienced in monetary management by Jamaica, greater stability has been associated with the unified currency area governed by the ECCB. Table 5 suggests that ECCB member countries have experienced lower inflation and higher real growth than other Caribbean countries. Not surprisingly, there has been renewed interest in the notion of a rule-based unified currency area for the English-speaking Caribbean. 1/

A principal objective of the ECCB is to safeguard a common pool of reserves in order to preserve the parity of the EC dollar to the U.S. dollar. The ECCB is the depository of the external assets of participating governments and members are required to transfer into or withdraw foreign reserves, resulting from their external transactions, from a common pool. To safeguard this pool, the requirement of a minimum reserve cover of 60 percent for reserve money has been consistently exceeded by wide margins, and borrowing limits by member governments have been strictly enforced.

With currency issue constrained by the reserve cover, and, given the limited financing role of the ECCB to member countries, adjustment to imbalances is in principle fairly automatic and inflexible. Unless members can induce an inflow of capital or access secondary reserves, lower foreign exchange earnings reduce imports.

The achievement of exchange rate stability, and low area-wide inflation should not obscure underlying pressures among some member countries of the currency area. Antigua and Grenada, for example, which together account for approximately 35 percent of area-wide M2, have run fiscal deficits during 1988-1992, which have averaged 2.0 percent of GDP for Antigua and 5.7 percent of GDP for Grenada. As these are not monetized by the ECCB, inflation remains low. To a significant degree, these deficits have been financed by the accumulation of domestic and external arrears. In Antigua,

---

1/ See Codrington, Hilaire, Robinson, and Samuel (June 1991).

Table 5. Selected Indicators--ECCB Members Vis-à-Vis Other Caribbean Countries 1/

(Percent per annum)

	1987	1988	1989	1990	1991	1992
ECCB members 2/						
Real G.D.P.growth	6.5	9.5	5.9	4.8	4.0	n.a.
Inflation	2.3	1.9	4.9	3.9	3.5	4.0
M_2 growth	15.6	8.2	14.1	10.6	8.3	7.7
Net domestic credit growth	5.9	2.6	22.0	11.6	9.0	8.9
Other Caribbean 3/						
Real G.D.P.growth	3.1	0.4	1.8	1.2	2.0	3.0
Inflation	12.3	15.1	30.3	24.9	41.8	37.7
M_2 growth	27.3	19.8	15.1	25.0	42.6	24.5
Net domestic credit growth	12.1	18.9	3.3	4.8	6.3	16.7

Source: International Financial Statistics.

1/ Indicators derived by adding up rates of growth in countries in each group and is unweighted.

2/ Includes members of the common currency area, Antigua, Dominica, Grenada, St. Kitts, St. Lucia and St. Vincent. Data for Monserratt and Anguilla were not available.

3/ Includes: Barbados, Guyana, Jamaica, and Trinidad and Tobago.

central government arrears were equivalent to 3.0 percent of GDP per year on average during 1988-1992, while in Grenada they have been equivalent on average to 2.8 percent of GDP during the same period. The stock of external arrears was equivalent to 59 percent of GDP and 8 percent of GDP for Antigua and Grenada, respectively, in 1992. 1/ In addition to arrears, the insurance schemes are required to hold a portion of their reserves in the form of fixed rate government securities.

These forms of financing have serious shortcomings. Arrears inhibits the development of a domestic securities market, as they are in effect a forced nontradeable instrument. Moreover, the requirement to invest in paper at below market rates distorts interest rates. Further, to the extent that this mode of financing becomes institutionalized, issuing debt instruments to clear these arrears becomes less viable as confidence in the willingness or ability to repay is eroded. This could constrain the development of a securities market in Antigua and Grenada, but could also affect attempts to develop an integrated domestic securities market amongst the members of the currency area. Finally, while arrear financing is unsustainable, a scenario is conceivable whereby the ECCB may feel obliged to "bail-out" these members rather than forcing the severe fiscal adjustment necessary.

V. Financial Sector Reform in the Rest of the Caribbean

Increasingly, countries in the Caribbean have been liberalizing their exchange and trade arrangements and reforming their financial markets to make them more market responsive. In April 1993, Trinidad and Tobago removed exchange controls on current and capital transactions and floated the TT dollar. Guyana, since the "Dealers in Foreign Currency Act" of March 1990, and the subsequent rate unification in February 1991, has had a market-determined exchange rate. Since 1975 the Barbados dollar has been pegged to the U.S. dollar at a fixed rate, and in recent periods the authorities have undertaken stabilization programs that resulted in real wage declines in order to defend the fixed rate. Payments and transfers for current international transactions are in the main free from restrictions, while there are restrictions on the capital account.

In monetary management, Trinidad and Tobago removed the secondary reserve requirement on banks in 1991, and ceased providing advances to cover reserve deficiencies in 1992. Interest rates have been market-determined, and the primary monetary policy instrument has been the variation in the rediscount rate of the Central Bank of Trinidad and Tobago (CBTT). As of June 1991, Guyana conducts a monthly treasury bill auction which serves both for deficit financing and monetary management. However, the auction has

---

1/ Domestic arrears comprise past due bills to suppliers, unpaid interest on treasury bills and bonds held by the private sector and national insurance schemes, and overdue contributions to these schemes.

been influenced by the liquid assets requirement, which was equivalent to 35 percent of deposits at end of 1992. Credit ceilings and administered interest rates have been abandoned. However, to absorb excess liquidity in 1991, commercial banks were required to convert 75-80 percent of their excess reserves into variable interest debentures with maturity of three years.

Barbados has eliminated the ceiling on interest rates for nonbanks and on the average lending rate for banks. Indicative credit ceilings for individual banks have also been removed. Preferential interest rate schemes are still operational, however, and the interest rate structure is managed through a minimum deposit rate and a notional spread. A secondary security reserve requirement equivalent to 23 percent of bank deposits in 1992 has also applied to banks.

These reforms have been occurring in the context of an improved fiscal environment. All countries have improved their overall public sector balances, reduced domestic financing needs of the government, increased reliance on security placements to raise debt, and consequently reduced central bank accommodation and base money pressures. Despite these conditions, certain features underlying the operation of the financial markets in these countries are similar to Jamaica's, which could complicate monetary management.

One of the features are quasi-fiscal pressures on money supply, which can be observed in Guyana, Barbados and Trinidad, notwithstanding the improvement in public finances. In Guyana, these pressures arise from Bank of Guyana (BoG) losses which was equivalent to around 15 percent of GDP in 1992. These losses in part arose from exchange guarantees provided in the past to public enterprises, in the face of substantial exchange depreciation. Losses have also been driven by interest payments on Special Reserve Deposits issued to absorb excess liquidity. The liquidity impact of these losses in 1992 amounted to the equivalent of 19 percent of the stock of currency at the end of the year.

While the Central Bank of Barbados is profitable, its financing to the state-owned Barbados National Bank (BNB) at preferential interest rates has put pressures on the money supply. 1/ While in principle this financing is seasonal, credit has been increasing and much of it could be unrecoverable. The amounts are sizeable; the flow in 1992 was equivalent to 16 percent of the stock of currency in circulation at the end of that year.

The CBTT has provided support to the state-owned Workers, National Commercial, and Cooperative banks, at below market rates. These banks have poor portfolios, and have required liquidity support which amounted to

---

1/ The BNB holds most of the nonperforming credits to the sugar sector.

approximately 30 percent of base money in 1991. 1/ That support has not only been an open-ended and at times unpredictable source of liquidity creation, but also it has facilitated the operation of essentially unsound intermediaries and weakened the role of interest rates. Further, if these banks become too large to fail, the lender of last resort discretion of the CBTT bank could be compromised.

Like Jamaica also, the systems of monetary management have contributed to some disintermediation from the supervised financial system, with associated inefficiencies. Whereas in Jamaica, the case was one of high unremunerated reserve requirements causing increased intermediation through nonbanks, in Barbados, a managed interest rate structure, active use of reserve requirements, and indicative credit ceilings, resulted in a loss of bank deposits in the mid 1980's, to the credit unions. More recently, commercial banks have lost some ground to commercial enterprises which accept deposits at higher interest rates, and increasingly perform as financial intermediaries. 2/

In Guyana, an administered system led to an overhang of excess liquidity equivalent to 35.3 percent of deposit liabilities in June 1992. This excess has been held in the form of Special Deposits. The liquidity of these deposits constrains the development of an interbank and secondary market, and makes monetary management difficult because of the unpredictability of encashments of these deposits. 3/

In Trinidad, nonbanks have been consistently able to offer higher deposit rates due to a 12 point difference between bank and nonbank reserve requirements which has allowed nonbanks to increase their market share. Importantly, since 1988, intermediation ratios to GDP have declined from roughly 49 percent to less than 39 percent, in part due to an administered interest rate controls which resulted in negative deposit yields for most of the period.

Until recently nominal exchange rates have been either fixed or fairly inflexible in Trinidad, Barbados and Guyana. Even with the recent adoption of market mechanisms for rate determination, there is still evidence of hesitancy to allow rates to adjust. External imbalances are quickly reflected in net international reserve changes, and, given historically weak foreign exchange positions, the policy response to capital inflows is invariably to accumulate reserves with resultant increases in money supply. In other situations, because of a hesitancy to utilize interest rates due to

---

1/ In September 1993, these banks--which together account for 25 percent of total banking deposits--were consolidated into the First Citizens and recapitalized, in an effort to deal with a poor quality portfolio.

2/ The ratio of M2 to M3 declined from almost 91 percent in 1985 to less than 85 percent in 1992.

3/ The M2/GDP ratio fell from a peak of almost 131 percent in 1988, to about 56 percent in 1991.

concerns for real growth, the result of credit expansion is invariably reserve loss. These episodes have been frequent in the Caribbean, the latter being particularly common, given a history of generally weak fiscal positions. In the case of Trinidad, for example, after reserve accumulation consequent on strong oil prices, there was a reserve loss of approximately US$3.0 billion over the ten year period 1982-1992. This was primarily in response to an increase in domestic credit from ratios equivalent to 9.2 percent of GDP in 1982, to a peak of 55 percent in 1988. Exchange rates and interest rates remained more or less flat throughout this episode.

VI. Conclusion and Lessons

It is a tautology that in any fixed exchange rate regime or if there is a desire for exchange rate stability, domestic policy is in effect endogenous to that arrangement. Without a credible and consistent policy commitment to this rule, the tendency is for the regime to collapse. In this regard, the experiences of Jamaica and the ECCB are instructive.

In Jamaica, while it was fairly simple to remove interest rate restrictions on the intermediation process, consensus on policy induced interest rate movements has been more difficult. Because of this dichotomy, while indicators of intermediation improved with the removal of credit and interest rate restrictions, monetary control was more elusive, owing to weak fiscal performance. A currency-board type arrangement, however, need not guarantee fiscal prudence. Under a currency-board, budget deficits are feasible, but only to the extent the public, at home or abroad, are willing to buy government securities to finance that deficit. Where the market for such securities are weak, as in some member countries of the Eastern Caribbean currency area, fiscal deficits have been more crudely financed and could pose a threat to the stability of the arrangement. With the renewed interest in currency-board type arrangements in the Caribbean, discussions may usefully also evaluate whether a currency-board per se provides the strong political commitment to keep budget deficits low. A companion consideration may also be whether securities markets are sufficiently developed to support deficits where they arise under such arrangements.

A related issue is the impact of quasi-fiscal pressures on monetary policy. As mentioned before, all central banks reviewed have provided sizeable and unpredictable credits. In Jamaica and Guyana, central bank losses increased rapidly when they were not offset by fiscal adjustment. The Jamaican response during the review period to the resulting monetary expansion has been in the main, to flip flop between indirect and direct instruments of control. This ambivalence damaged credibility and confidence, and led to periods of disintermediation from the domestic financial markets.

A second general lesson from the Jamaican experience relates to the need to view indirect instruments as performing two related roles. As instruments of monetary control, there is the need for consistent use amongst instruments and the full range of instruments needs to be constantly reviewed to ensure that they are operating in tandem. Lack of instrument synchronization was the essential reason undermining the authorities' response to the 1989 episode of currency speculation. In addition, while there is the general need for fiscal and monetary policy coordination, it should be noted on the fiscal side that mismatches between project execution and reimbursement in foreign currency can put pressure on the exchange system, with the need for compensating monetary tightening.

Indirect instruments also facilitate the development of money markets, which in turn makes indirect instruments more effective. To a large extent, tax and accounting conventions hampered the development of secondary market activity in Jamaica. These, combined with incorrect rediscount pricing, reduced the incentive for investment in market making institutions. In Guyana, bank deposits are taxed at a lower rate than earnings on treasury bills which makes the latter less attractive, which could inhibit the development of the market. In Trinidad, Parliament has set ceilings on domestic debt which have been binding; the outstanding amount of treasury bills has not increased since 1989. As mentioned earlier, in the EC, placements of government securities are ad hoc and largely project related and confidence may have been affected by the episodes of arrears in some countries. These factors could all be constraining the development of primary securities markets and related institutions. In turn, the absence of this market could impede the efficiency of indirect instruments.

These issues are likely to be relevant to other Caribbean central banks as they adopt indirect instruments of control and more liberal exchange arrangements. Notwithstanding the difficulties in implementation, however, the recent experience of Guyana and Jamaica suggest that with consistent macroeconomic policy and coordinated instrument use, positive results in control, confidence and real growth are likely.

References

Bennett, A., "Currency Boards: Issues and Experiences," IMF Paper on Policy Analysis and Assessment, PPAA/94/18 (Washington, D.C.: International Monetary Fund, 1994).

Cotarelli, C., Limiting Bank Credit to the Government-Theory and Practice, IMF Occasional Paper No. 110 (Washington, D.C.: International Monetary Fund, 1993).

Codrington, Hilaire, Robinson, and Samuels, "Options for Monetary Integration in the Caribbean - An Evaluation of Recent Proposals," (June 1991).

Central Bank of Barbados, *Annual Statistical Digest*, (various issues), and "Chronicle of Central Bank Policy," (1991).

Central Bank of Jamaica, *Annual Statistical Digest*, (various issues).

Central Bank of Trinidad and Tobago, *Monetary Management in Trinidad and Tobago*, a Chronology 1964-1989.

Guitián, M., Rules and Discretion in International Economic Policy, IMF Occasional Paper No. 97 (Washington, D.C.: International Monetary Fund, 1992).

Johnston, B., and Brekk, O.P., "Monetary Control Procedures and Financial Reform: Approaches, Issues and Recent Experiences in Developing Countries," IMF Working Paper, WP/89/48 (Washington, D.C.: International Monetary Fund, June 1989).

Livitan, N., ed., *Proceedings of a Conference on Currency Substitution and Currency Boards*, (1994).

McClean, A. W., *Money and Banking in the Eastern Caribbean Currency Area*, Institute of Social and Economic Research (1975).

Nascimento, J.C., "Monetary Policy in Unified Currency Areas: The Cases of the CAMA and ECCA During 1976-1990," IMF Working Paper, WP/94/11 (Washington, D.C.: International Monetary Fund, January 1994).

Osband and Villanueva, D., "Independent Currency Authorities: An Analytic Primer," IMF Working Paper, WP/92/50 (Washington, D.C.: International Monetary Fund, 1992).

Quintyn, M., "Government Securities versus Central Bank Securities in Developing Open Market Operations," IMF Working Paper, WP/94/62 (Washington, D.C.: International Monetary Fund, 1994).

Shaw, E., "Controlling the Stock of Money in Jamaica," (mimeographed, Bank of Jamaica, 1993).

West India Commission, "Compulsions of Integration," Occasional Paper No. 6 (Barbados: West India Commission, 1992).