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MONETARY POLICY, INTEREST RATE SPREADS AND INTERMEDIATION COSTS IN THE BARBADIAN BANKING SECTOR

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INTRODUCTION

There is a large body of literature, inspired in part by the work of McKinnon (1973) and Shaw (1973), which emphasises the importance of financial intermediation in the growth process. While intermediation by financial institutions enhances the rate of growth by raising the returns to savers and reducing the costs to investors, the McKinnon-Shaw thesis contends that growth in many economies is impeded by financial repression. This results from negative real interest rates or restrictive regulations on financial institutions. Despite their contention, however, "repressed" financial systems remain the norm in many developing countries, including in the Caribbean. Interest rates, have been kept low while controls have been placed on the direction and quantity of credit. In addition high reserve and security requirements have been used to help finance the deficits of the public sector.

The scope of those regulations fall outside the framework necessary to preserve the integrity of the financial system. In the main, the purpose has been to address macroeconomic objectives associated with stabilization and growth. Hanson (1985) indicates, however, that such measures impose direct and indirect costs on the financial sector. This may result in wider interest spreads, excessive transactions charges, lower operational efficiency or reduced profitability for financial institutions.

In addition, there is a risk that restrictions like selective credit controls may encourage the emergence of competing financial institutions which lie outside the regulatory framework. While a more diversified financial structure is desirable to enhance the intermediation process, the operating costs in these new institutions may be higher than in the larger and more developed segments of the financial system. It is an empirical matter whether or not the efficieny loss to the economy associated with these new financial institutions is greater than the excess profits generated as a result of collusion tacit, or explicit, within a less diversified financial system.

In their studies of monetary policy Caribbean writers have tended to concentrate more on stabilisation issues than on questions of efficiency in the financial sector. Miller (1962), Howard (1981) and Bourne (1988a) have drawn attention to the operating performance of the banking sectors of Jamaica, Barbados and Trinidad & Tobago respectively, but only Bourne (1988b) emphasises the importance of the link between efficiency and the long-run stability of the financial sector.

This paper uses the Barbadian experience since 1973 to examine the impact which the regulatory framework may have had on the efficiency of the banking sector. Using the accounting framework suggested by Revell (1981), the analysis focuses mainly on the impact which Central Bank regulations may have had on interest rate spreads and intermediation costs. This is a preliminary investigation only and the analysis at this stage is mainly descriptive. The emphasis is placed on raising issues rather than on drawing normative conclusions on the direction of policy . As result, a number of questions relevant to the discission of

efficiency in the sector remain untouched. In particular, the optimal size and the number of banks necessary to enable greater operational efficiency in Barbados would seem to merit attention.

BARBADIAN BANKING SECTOR

The financial system in Barbados has been and continues to be dominated by the foreign owned commercial banking sector. Government has set up specialized institutions to provide long term funds, but the commercial banks remain the main mobiliser of resources in the economy. The pace of development of the banking sector to date has been uneven and may be depicted in three distinct phases:

Phase 1: 1837-1959

This was in all respects a period of slow growth of the sector. By 1959 five banks, four of them foreign, were competing for deposits and serving the loan demands of corporate Barbados. The foreign banks, one British and three Canadian, were engaged principally in meeting the needs of international trade. This is evidenced by the fact that only Barclays Bank, the first to locate in Barbados, had more than branch. Moreover, the government owned Savings Bank was able to capture almost 33% of the deposits held in depository institutions.

Phase 11: 1960-1972

During this phase there was a marked change in the structure of the economy and in the nature of the banking sector. Led by Barclays Bank, there was a dramatic

rise in the number of branches. This network was set up in close proximity to the coastal area where the thriving hotel sector was situated. There were, however, a few small branches located in rural districts to encourage the banking habit and capture a substantial portion of the high level of savings arising from the rapid growth of incomes. As part of the international trend, Barbados welcomed its first American bank in the late sixties. The rapid expansion of the foreign banks displaced the Savings Bank as a major intermediary within the financial system.

Phase 111: 1973-1988

Prior to the establishment of the Central Bank in 1972, banks were largely unregulated. With international economic developments unstable and exerting a negative influence on the domestic economy in the 1970s, the Central Bank sought at an early stage to extend its influence on the banking sector. The perception that the allocation of funds by banks was not socially efficient and that local banks were colluding to the detriment of deposits and borrowers also prompted the efforts to control the behaviour of banks The banks which were established during the first phase, were able to consolidate their position within the banking system even though their preferred operations were curtailed. In contrast, the newer American banks did not effectively penetrate the domestic market and eventually all four bank closed their operations. This may reflect the fact that the newcomers had to offer higher interest rates on deposits while undertaking more risky lending than the long established banks (Howard 1989) at fixed interest rates. In addition, selective controls may have had a more adverse impact on the smaller banks than on their larger counterparts since it

restricts lending in profitable lending activities. Selective credit controls were in place from 1977-87, but the evidence of the post selective controls period suggests that this impact may have been overstated.

In 1978 the Savings Bank was transformed into a National Commercial Bank, offering a full range of deposits and absorbing a substantial share of governmental and non-governmental. By 1988, it accounted for almost 18% of total bank assets. While the American banks closed, the dominance of the four major banks remained intact as the other two new foreign banks did not made significant inroads into the market. In contrast, competition appears to have been greater from the non-bank sector, particularly in the area of consumer lending. This trend is a direct result of the selective credit controls. In the interim, Barclays cut its branches in half from a peak of 18 in 1978, with the result that by 1988 there were 39 branches in comparison to 48 ten years earlier.

MONETARY POLICY

The focus of monetary policy since the inception of the Central Bank has been directed towards protection of the balance of payments. In this connection, the Central Bank imposed selective credit controls and high reserve and security requirements on the banking sector. In addition, concern that the predominately foreign owned banking system would collude in setting interest rates induced the Bank to place restrictions on interest rates. These fixed rates were designed to keep the cost of credit as low as possible within the context of maintaining a stable exchange rate. At the same time the Bank sought to protect depositors

and borrowers, enabling them to reap the potential benefits of the intermediation process.

These measures reflect the perceived the structural weaknesses of the economy including high import demand, the level of involvement by government in social and economic activity and the absence of developed capital markets. The questions which their existence raised are

(i) did such regulations may have impair the efficiency of the banking sector during the period?

(ii) if they did, were such costs acceptable within the context of the balance of payments constraints? and

(iii) what alternative policy mix would be necessary to improve the efficiency in the sector while tackling the stabilization issues?

The analysis of this paper addresses the first question, while touching briefly on the other two issues.

Interest Rate Spreads

Hanson (1985) points out that reserve requirements impose an implicit tax on financial intermediation since it prevents banks from lending all the resources which they have been able to attract. Abstracting from intermediation costs, the required loan rate for a given deposit base can be defined as

$$rl = rd_{/1-RR} \qquad (1)$$

where rl, rd and RR represent the loan rate, the deposit rate and the reserve ratio

The incidence of the implicit tax in this simple formulation depends on the flexibility which banks have in setting interest rates. Where banks have the scope to set interest rates freely, then the higher the reserve ratio, the higher the spread between deposit and loan rates. For a given reserve ratio the higher the deposit rate, the wider the spread will need to be in absolute terms. However where banks have limited interest rate flexibility adjustments to the fee structure or a reduction in operating costs may be necessary to compensate for the reduction in potential bank profits.

In Barbados, the reserve requirement, on which no interest is paid, moved gradually from 2% in December 1973 to 8% of total domestic deposits in August 1977. Since then, the ratio has remained unchanged. This requirement cannot be considered unduly burdensome in the context of bank safety and maintenance of stability in the financial sector. However, commercial banks have been mandated to hold large quantities of government paper, enabling government to maintain and finance its fiscal imbalances. The securities ratio has risen from an initial 3% to 22% of deposits, with at least 8% of deposits being held in longer term securities. Unlike cash reserve requirements, securities pay a return to banks. On shorter term securities this is about one half of the average lending rate.

The high securities ratio with its low return would, under a free interest rate regime, suggest that interest rate spreads would be large. Given the Central Bank's role in setting minimum savings and average lending rates, banks would appear to have had limited latitude in adjusting the spread between deposit and loan rates. In this connection, the Bank has often moved the minimum savings rate and the average lending rate simultaneously and by the same amounts.

However, spreads as measured by the difference between interest income and interest expenses shifted upwards from 2.5% in 1975 to 3.9% of average banks' assets in 1981. (See Table 1). The absence of data on the pre Central Bank period makes its difficult to make firm conclusions but analysis of commercial banks deposit liabilities and of shifts in the operating ratios suggests that banks did make significant adjustments under the new policy framework. For example, while the Bank established minimum savings rates, the differences between nominal savings and time deposit rates, even on 12 month maturities, were often not significant. Interest rates were relatively stable for most of the period, but over time, there was a perceptible shift towards savings deposits. This seems to reflect the banks' preference for savings deposits since the effective rate paid on savings is far less than on time deposits. This results from the practice of calculating interest on savings on a minimum quarterly balance basis rather than on a more frequent basis as is the norm in the country of origin of the parent banks. As a result, with the share of savings deposits rising, the effective deposit rate rises by less than the loan rate when interest rates rise, as they did in 1980-81.

Since 1981, interest spreads declined to 2.6% in 1985, before recovering to 3.3% in 1988. The restrictive monetary policy contributed to the reduction of spreads as high excess cash and securities ratios point resulted from the maintenance of selective credit controls on the distribution and personal sectors. Elsewhere in the economy loan demand was inadequate. The high ratios may also reflect the inability of banks to discern profitable opportunities among new enterprises, especially where the debt equity ratio may be very high.

While we do not have a comprehensive data set on the fee structure of banks, it is clear that banks attempted to recoup part of their reduced spreads by raising fees. As a result, fee income's share of assets rose, suggestive of a relatively inelastic demand for the non-credit services provided by commercial banks. These increases may well reflect an attempt to match revenue with costs of providing the service. Where the volume of transactions is large, substantial increases in fees could impact on the balance sheet of the corporate sector, with implications for the rest of the economy.

Given the manner in which banks have attempted to negate Central Bank policies by encouraging a shift in distribution of deposit liabilities and by revising upwards bank charges and fees, the question arises as to whether it would be preferable to reduce high securities ratios or eliminate the floor on savings deposits rates.

On the issue of securities, while some gains would be derived from a reduction in this ratio, it is not clear that there would be an improvement in economy-wide efficiency. Certainly, government would need to trim its deficit and/or

compete directly with commercial banks for private sector financing. To compete for funds, rather than compulsorily acquire them would almost certainly force treasury bill rates up, increasing the financing cost of government's operations. Given that such measures can be phased in, this would not necessarily have a disastrous impact on government finances. What is more questionable is whether government can get the resources it needs without recourse to the Central Bank. From the bank's perspective the deposit base, out of which funds would be on lent, could be reduced and interest costs minimized. It is not intuitively clear if lower interest costs would be absorbed in higher profits or passed on to depositors and borrowers. In addition, there is the risk that higher treasury bill rates might put upward pressure on deposit rates and borrowers

Removal of the floor on savings deposits might contribute to a reduction in spreads by inducing a shift in the portion of deposits absorbed in savings. Of course this does not rule out the possibility that where liquidity is high banks may offer very low rates on deposits or offer maturity structures which reduce the demand for time deposits. Elimination of the floor would appear to offer the possibility of greater downward flexibility in lending rates but the impact of this would need to be considered carefully in the context of the macroeconomic framework.

INTERMEDIATION COSTS

Intermediation costs in the banking sector increased by 12.0% per annum between 1974 and 1988. The growth was strongest in the 1974-81 sub-period (16.7% p.a)

when inflation was at its peak and there was continued expansion of the branch network. This sharp rise in costs raised the ratio of costs to assets from 5.7% in 1974 to 7.8% in 1981. The source of the higher costs was the improved profitability of the banking sector during the period. The ratio of pretax income to assets trebled, reaching 3.4% in 1981 and pushing the share of profits in intermediation costs from 19.4% in 1974 to 43.6%. This improved profitability was made possible by the improvement in spreads which occurred during the period.

In contrast, the operating costs ratio remained stable at 4.0% p.a throughout the period. The bank's ability to keep their operating cost constant in the presence of rising prices may reflect economies gained from closure of some of the branches. The practice of some banks to absorb staff within other branches may have contributed, along with inflation, to the increase in renumeration expenses but this was offset by savings on other expenses. Based on Rocha (1985) these operating costs are substantially higher than for OECD countries and Asian countries like Korea, Thailand and Malaysia. However the high inflation Latin American countries experienced operating costs well above 4%.(eg in 1981 Brazil"s ratio was 12.2%).

The post 1981 period depicts a reversal of the trends seen earlier, with low inflation rates, slower growth of intermediation costs (7.6% p.a), and a reduction in the share of intermediation costs absorbed by profits (See Table 2). The post 1981 period was a period of relatively slow economic activity, selective controls and high security ratios which would have constrained lending activity by banks. Increases in staff expenses suggest that there may have been little staff attrition. Indeed, the share of operating costs trended upwards,

reaching 4.7% in 1985. As a result, the net income to assets ratio dropped from 3.4% in 1981 to 0.8% in 1985 as the higher operating costs were accompanied by a reduction in spreads. By 1988, the profitability of the sector had recovered to 2.3%. However, while the profitability of the sector declined during the mid 1980s closer in line with those in industrial countries, it is clear that the underlying profit position of the banking sector seems to be high by international standards.

Summary

The behaviour of banks has been affected by the regulatory framework put in place since 1973. Banks' spread have remained high, however, as a result of adjustments in their portfolio management. In contrast, there has been no improvement in the operating efficiency of the sector. While such improvement is desirable it is not clear that such improvements would be reflected in the returns to borrowers and depositors. As a result, there is uncertainty as to what impact a reduction in restrictions would have on banks behaviour.

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TABLE I

Commercial Banks Operating Ratios
(% of Average Assets 1974-88)
(Selected Years)

	1974	1981	1985	1988
Interest Spread	2.7	3.9	2.6	3.3
Interest Income	8.8	9.1	2.6	6.6
Interest Expenses	6.1	5.2	4.2	3.2
Other Income	3.0	3.9	4.0	3.8
Securities	0.5	1.3	1.2	1.2
Fees/Service Charges	2.5	2.6	2.8	2.6

TABLE 11

Intermediation Costs 1974-88
(Selected Years)

	1974	1981	1985	1988
Intermediation Costs	5.7	7.8	6.6	7.1
Operating Costs	4.1	4.2	4.7	4.4
Depreciation/Bad Debts/ Loan Losses	0.5	0.2	1.1	0.4
Profits	1.1	3.4	0.8	2.3