

# BANKING IN SMALL STATES

## THE CASE OF CARIBBEAN COMMERCIAL BANKS

by  
*Anthony Birchwood*

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# BANKING IN SMALL STATES: THE CASE OF COMMERCIAL BANKS IN THE CARIBBEAN COMMUNITY

*Anthony Birchwood*

*Global forces are pushing the banking sector and monetary authorities into difficult areas of decision making. Indeed, questions arise concerning: what are the characteristics of banking in small states? What is the optimal size of banks in small states? What are the implications of these characteristics for cross-border integration of the sector in small states? What is the appropriate financial and regulatory architecture? What are the growth implications of developments in the sector? These questions are timely, as the region is entering into global and hemispheric negotiations concerning trade in financial services. Accordingly, this study attempts to shed some light on these matters based on the realities which confront the sector and its customers, regarding the business of banking. As a consequence, it examines the structure of commercial banking in the Caribbean, the behaviour and performance of banks and the nexus between banking and growth.*

## ABOUT THE AUTHOR

*Anthony Birchwood is a Research Fellow at the Caribbean Centre for Monetary Studies. He has conducted economic research on international and regional issues and has published regionally and internationally in the areas of banking, monetary and fiscal policy, trade and economic integration. In addition, Mr. Birchwood has presented papers on a diverse array of topics at numerous conferences.*



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THE CASE OF  
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CARIBBEAN COMMUNITY**

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## *Preface*

I am especially pleased to write this foreword for the monograph entitled **Banking in Small States: The Case of the Caribbean** written by Anthony Birchwood and published by the **Caribbean Centre for Monetary Studies (CCMS)**. Despite the fact that a number of research papers have been undertaken under the auspices of the Regional Programme of Monetary Studies (now renamed Annual Conference of the Caribbean Centre for Monetary Studies), there is in fact a dearth of comprehensive Caribbean-wide studies on the activities of commercial banks in the CARICOM region. This study is therefore the first that has been published by the CCMS, which gives relatively wide comparative coverage of commercial banking operations in the CARICOM region in a single volume. It serves therefore as a complementary work to some of the research on commercial banking behaviour undertaken recently by Bourne (1988), Williams (1996) and Panton (1998).

Since the conclusion of the Uruguay round of multilateral trade negotiations in 1994, trade in financial services has now come under the discipline of the General Agreement on Trade in Services (GATS), which contains a number of rules and disciplines to ensure greater liberalization of trade in financial services. For many countries in the Caribbean, greater liberalization of trade in financial services will imply greater competition from extra-regional financial service providers. If commercial banks in the Caribbean region are to remain competitive in the increasingly liberalized financial services environment, then they need to pay even greater attention to developing new mechanisms and strategies to improve their levels of efficiency.

One of the questions that is likely to be raised is the relevance of this study in an era where the financial systems in the Caribbean are under-going rapid change brought about by new technologies and the emergence of a range of new financial intermediaries and

instruments. Birchwood reminds us that despite these innovations, commercial banks still remain the dominant financial intermediary in terms of asset size, savings mobilization and credit provisioning and therefore investigating their operations is vital to understanding their impact on the soundness and stability of financial systems in the Caribbean.

The present study has touched on a number of useful themes which include: trends in international banking and the new strategies that have been adopted by international banks to gain a competitive advantage, such as technological innovations, outsourcing, cross-selling, mergers and acquisitions; the relevance of bank financing to economic growth and development; and the relationship between bank size and operational performance. The study therefore represents a useful addition to the literature on commercial banking behaviour in the Caribbean and will constitute a useful reference guide for policy makers, researchers and students of banking and finance.

*Shelton Nicholls*  
*Deputy Governor*  
*Central Bank of Trinidad and Tobago & Former Executive*  
*Director Caribbean Centre for Monetary Studies (CCMS).*



## *Acknowledgements*

The study is the outcome of research on the banking sector that I began in 1997. In the ensuing period, several drafts were presented at conferences and various commentaries were received on several variants of these. Indeed, the study was enriched by the comments received both from academia, and from central banking and the commercial banking sector. I owe a great deal of gratitude to the former directors of CCMS, Dr. Lawrence Clarke and Dr. Shelton Nicholls for their in-dept comments. I also benefited tremendously from the incisive comments of Dr. Roland Craigwell, chief economist of the Barbados Central Bank, Dr. Ronald Ramkisoan, Senior Economist at Republic Bank.

It is with heartfelt appreciation that I thank the participants at various conferences for their comments. These conferences include Institute of Bankers Conference, held in Trinidad in 1998; the CCMS Review Seminar held in Trinidad in 1999; the Annual Review Seminar, hosted by the Central Bank of Barbados in 2000; and the Annual Conference of the Caribbean Association of Indigenous Bankers held in Barbados in 2001.

I would also like to thank my colleague, Ms. Patsy Russell for her invaluable assistance in gathering some elements of the data that were necessary for the execution of the study. I am also grateful to Dr. Winford James and Ms. Savitri Pargass for providing critical editorial support for the study. In addition, I would like to thank Mrs. Gloria Lawrence for painstakingly type-setting the manuscript.

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*Caribbean Centre for Monetary Studies*

# INTRODUCTION



The Caribbean Community (CARICOM) is a small trading bloc, which consisted in the 1990s of fourteen full-member countries - The Bahamas, Barbados, Belize, Guyana, Jamaica, Suriname, Trinidad and Tobago, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. Of these countries, the latter seven are part of the Organisation of Eastern Caribbean States (OECS) and constitute the area managed by the Eastern Caribbean Central Bank. With an overall population of just over 6 million, these countries can be considered micro-states by international standards. Only two of them, Jamaica and Trinidad and Tobago, have a population of over 1 million.

The banking industry plays a pivotal role in the economies of these countries.<sup>1</sup> It is the single largest financial sub-sector in terms of assets, savings mobilisation and credit provisioning. Theoretically, the industry facilitates the flow of funds between savers and borrowers by bridging the information gap between them. In addition, it makes investment projects divisible and facilitates the trading of uncertain liquidity requirements for illiquid assets.<sup>2</sup> Moreover, banks have the capacity to reduce

- 
- 1 The discussion on the banking industry is restricted to deposit-taking banks.
  - 2 See Bensivenga and Smith (1991) for an elaboration of the last point. The information advantage of banks also improves their ability to select the most promising projects, both in terms of objective and subjective criteria, for disbursement of credit.

## *2 Anthony Birchwood*

transactions cost by gaining economies of scale and scope on large transactions. The critical intermediation role they play also places them at the heart of the payments system. Not surprisingly, therefore, banks have been the subject of attention by regulators, monetary authorities and researchers.

The study explores evidence that can allow informed judgments on the future directions of the industry. Given the impulses towards consolidation and expansion emanating from the external environment, such an analysis will facilitate discussion on the imperatives for bank management and regulators. The rapid changes taking place in the economic and technological environments have implications for the strategies adopted by locally owned commercial banks in micro-states, as these entities can find themselves marginalised by multinational banks from the largest economies in the world. Banks in CARICOM are relatively small and are significantly different in some characteristics from their bigger counterparts in industrialised countries. Consequently, theories on banking originating from industrialised countries should at least be empirically validated in the context of small islands before they are embraced.

This study is therefore grounded in the empirical realities that surround the regional environment. Perhaps the most comprehensive of its type ever undertaken in the region, it comes at a time when there are significant changes in the delivery of banking services in the industrialised countries. There is an unprecedentedly high level of mergers and acquisitions as financial institutions jostle one another for strategic advantages. Boundaries demarcating banks from non-banks are continuously being eroded. Moreover, competition has transcended national boundaries.

To a large extent, these changes are being driven by the revolution in information technology, the consequent lowering of communication costs, and strong pressure on financial

institutions to satisfy customer needs competitively. Banks are therefore attempting to become larger and larger in order to build their asset base to acquire more expensive technologies and gain synergies in product development and customer service. Indeed, it is predicted that those banks which will survive in the future will be those that are large, can afford to keep abreast of technological changes in customer service delivery and are innovators.

Commercial banks in tiny and fragmented economies such as those in the Caribbean are limited, however, by both their small size and, consequently, by the extent to which they can reap scale and scope economies. It is questionable, for example, how feasible large-scale mergers or the purchase of expensive forms of technology can be in small economies. Relevantly, therefore, the study examines the attributes associated with banking in CARICOM countries, including the effects of bank size on performance and the social impact of banking in the region.

### **Previous Studies on Bank Performance in the Caribbean**

There has been some research on the subject of commercial banking in the region. Studies have covered a wide range of areas, including central banking, bank legislation and regulation, monetary and financial policy, bank fragility, portfolio behaviour of banks, savings mobilisation and various other aspects of bank performance. However, the depth of debate on each specific issue has been quite limited, as the studies on each aspect of banking do not appear to be very wide, compared to studies in the industrialised countries where there are competing views by various researchers on various themes. Publications on particular themes in the region tend to be limited to a few authors, and to be focused on specific Caribbean economies at particular time periods. In spite of this limitation, different strands of research in the subject

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area of bank performance in the Caribbean Community can be identified.

Innovations in the financial industry in the Caribbean were outlined by Zephirin and Seerattan (1997). However, they were unable to quantify the importance of such innovations to the financial statements of firms since, in many cases, such data were not available. Nevertheless, they found that innovations, though similar in trend across the region, took place at different time periods, primarily as a result of competitive pressures, changes in the economic environment, and government and regulatory policy changes.

It has been argued, however, that little competitive pressure exists in many of the territories to encourage innovative activities in the financial sector. Bourne (1979) did a survey on a sample of 26 banks operating in the ECCB area, found that they benefited from high returns, with low loan loss provision, and concluded that there may be a low profit incentive for these banks to innovate, since the return and risk levels may be negatively correlated. Sixteen years later, Bennett (1995) analysed the performance of banks in Barbados, Jamaica, and Trinidad and Tobago, and came to a similar conclusion. He examined interest rate spreads in these territories for different sub-periods from 1980 to 1993 and found that there was no consistent trend towards the reduction in interest rate spreads, but rather, that the spreads actually widened in the case of Barbados and Jamaica. Also, Shaw (1995) suggested that over the period 1991 to 1993, banks in Jamaica might have widened interest rate spreads by suppressing deposit rates so as to offset the inflationary rise in bank operating costs. He therefore argued that competitive pressures were weak and this in itself would have discouraged innovative activity, since banks were able to increase their profitability without improving efficiency.

Thus, the finding that there are weak competitive pressures for banks to engage in innovations is reinforced by the observation that increased profitability is achieved without corresponding increases in operating efficiency. Panton (1998), for example, examined the performance of banks in the OECS for the period 1990-1995 and found that these banks displayed higher profitability levels than USA banks, but lower levels of cost efficiency. This tendency had also been earlier observed by Bourne (1988) with respect to banks in Trinidad and Tobago for the period 1965 to 1982.

The analysis of bank performance is deepened by locating it within the wider environmental context. Bourne (1986) argued that the quality of the asset portfolio of banks deteriorated in both boom and slump conditions, particularly because of the narrowness of their asset portfolio and foreign exchange scarcity. He observed that, in slump conditions, there was a tendency for loan default to increase and for private sector lending to be crowded out by public sector lending. In booms, however, he noted that bank lending tended to be concentrated as a result of a narrow range of sectors and foreign exchange constraints. As a consequence, lending tended to be in favour of risky projects, thereby inducing a deterioration in asset portfolio. The important point here is that bank behaviour and performance appear to be shaped by the environmental context. More recently, Birchwood and Nicholls (1999) found that business lending by banks in Guyana, Jamaica, and Trinidad and Tobago was significantly influenced by economic cycles in the short term and by investment demand in the long-run. In light of their findings, they emphasized the importance of the economic environment as a major influence on the quantum and allocation of lending to the non-consumer sector.

Liburd and Ferracho (1985), in their study of banking in the OECS with respect to the period 1982 to 1984, found that local banks were more vulnerable than foreign ones to adverse macro-economic conditions which prevailed at that time.

## 6 *Anthony Birchwood*

According to them, foreign banks were endowed with a greater proportion of private sector loans. During periods of economic decline, these banks engaged in profit targeting by raising their lending rates to increase profitability. Local banks, on the other hand, possessed a larger proportion of low-yielding public sector loans and a greater volume of more expensive time deposits. Liburd and Ferracho (1985) contended that the lending rates of the local banks were compromised by their engagement in concessionary lending to the public sector, while their more expensive deposit base reflected an attempt to penetrate the traditional territory of foreign banks *via* higher deposit rates. They therefore argued that the higher cost of funds, together with lower-yielding assets, led to a decline in profitability during periods of economic stagnation.

The regulatory environment also exerts a critical influence on the performance of banks. It has been argued by some economists that a certain level of monetary and financial restriction is theoretically necessary to kick-start the development process. Others have argued that restrictions are repressive to the financial intermediation process. Williams (1996) contended that monetary controls adversely affected bank performance in the region. She investigated the effects of monetary regulations on bank performance in Barbados, Jamaica, and Trinidad and Tobago and found the use of credit controls and reserve requirements as instruments of monetary policy to be detrimental to bank profitability and market competitiveness. She therefore concluded that monetary liberalisation is a prerequisite to the development of the banking sector. The impact of monetary controls should not be over-weighted, however, as higher operating costs can also be prompted by market size constraints, the share of savings deposits in the deposit portfolio and low-yielding loans to the public sector.

These studies on banking in the Caribbean suggest at least two major conclusions. First, there may be little competitive



pressure placed on banks to encourage innovation. Compared to banks in metropolitan countries, domestic banks are already achieving high levels of profitability, despite exhibiting lower levels of efficiency and they are involved mainly in low-risk activities. Second, bank performance is sensitive to the economic environment in which they are operating, with local banks being even more sensitive than foreign ones.

Generalisations concerning the prognoses for Caribbean banking are limited, however, as most of the studies were country-specific and covered mainly the period preceding the 1990s. It must also be noted that there is a void concerning the effect of competitive factors on bank performance. Moreover, a significant number of the studies were restricted to the use of financial ratios.

The current study seeks to consider the performance of banks across the region by unfolding stylised facts concerning their operations. It is focused primarily on the period 1990-2002, a period of accelerated innovative activity in the Caribbean. Markets worldwide became progressively open as the World Trade Organisation formulated a legal framework, the General Agreement of Trade on Services (GATS), to facilitate this. Globalisation and regionalism, as well as technological developments, redefined the industry.

## **Outline of Study**

The combination of technology and liberalisation has opened up an exciting range of possibilities in the banking arena. Mergers and acquisitions and the reorganisation of banking services are the order of the day in the advanced industrialised countries. Given the onset of globalisation, developments in banking in these countries can be expected to influence banking in the countries on the periphery. Improvements in the transportability of banking services and widespread liberalisation increase the prospects of competi-

tion by multinational banks at the doorstep of indigenous banks in the periphery. Moreover, such changes can filter through multinational banks originating from the industrialised countries, *via* their subsidiaries located in the periphery. Accordingly, it is worth the while to examine trends in the advanced industrialised countries, since they tend to have a direct influence on developing countries. For this reason, the first chapter reviews some of the critical developments in banking activities primarily in the advanced industrialised countries. It is noted that these developments are not without their challenges and, in fact, the theory on how to deal with innovations is evolving.

Stylised facts concerning banking in micro-states such as those of the Caribbean are also critical since what obtains in the advanced industrialised countries may not completely occur in micro-states. The latter group of countries are characterised by small populations and limited diversification of productive sectors. The extent to which banks penetrate economic activity can further be affected by the overall level of development of the financial sector. An attempt is therefore made in Chapter 2 to set out some of the stylised facts associated with banking in these small territories. Differences with respect to scale, intensity, stability and distribution are outlined.

One issue that is pertinent to the discussion concerns the optimal size of banking in micro-states. If, for example, the smallness of domestic markets limits the potential of banks to achieve scale and scope economies in their local market, then mergers and acquisitions may be held in check. This issue assumes more urgency in micro-states such as those of CARICOM since the challenge of size may constrain the ability of banks to mimic their counterparts in advanced industrialised countries. This matter is investigated in Chapter 3 by employing quantitative techniques. Bank size was indeed found to carry differing implications for strategies and performance.

The study would be incomplete without consideration of the social dimensions of banking. In particular, it is of interest to policy makers how banks channel their resources and whether the services they offer are critical to the fostering of investment activities. In the past, there was heavy emphasis on the use of development banks to achieve desired credit allocation. The question needs to be asked, however, whether resources should be devoted primarily to expansion of the real side of the economy, leaving the banking sector to catch up, or whether indeed the banking sector is a critical constraint on real economic development. This issue is explored in Chapter 4. Chapter 5 concludes the study with an overview of some of the major findings and a discussion of some of the policy implications arising.

## *Chapter 1*

# REVIEW OF STRATEGIES FOR GAINING COMPETITIVENESS: INTERNATIONAL TRENDS IN BANKING

### 1.1 Introduction



An examination of critical developments taking place in major markets around the world is critical to a discussion on banking in small states. As in many other industries, these markets set the pace and trend that are difficult for industries indigenous to the countries in the periphery to ignore. Moreover, technological advances and economic changes have made the field of banking significantly different from what it was in the era preceding the 1980s. It is therefore appropriate to begin the discussion on banking in micro-states by reviewing the strategies for gaining competitiveness in an international context.

Profitability and cost efficiency are two important performance attributes that often interest the management and shareholders of a bank. Traditionally, banks were able to increase profitability by widening interest rate spreads on lending and deposit taking, as these constituted the core activities of the business of banking. Efficiency levels were not emphasised as much as they are today, since banks

operated largely in a nationalistic and protected atmosphere, where the transportability of services without a physical presence was severely restricted. Financial services are becoming increasingly global, as technological advancements and widespread economic liberalisation have transcended national boundaries and artificial walls, thus increasing the scope of competition in domestic markets. Leading banks in Spain, for example, have been branching out into the Latin American market in the face of fiercer competition and narrowing interest rate spreads in their domestic economy.<sup>1</sup> Indeed, the top banks in the world are moving closer to being transnational in nature, as their operations are spreading more and more overseas.

Banks are becoming indistinguishable from non-banks in their quest for increased profitability. In Italy, for example, banks were previously state-owned and relied heavily on interest rate spreads generated from traditional borrowing and lending. More of these banks are universal today, adding mutual funds, insurance and asset management to their traditional line of products.<sup>2</sup> In the United States, a survey by Lipper Lnc Summit NT revealed that banks have been making inroads into the mutual funds industry, exhibited by the increase in their market share of managed funds from 10 percent in 1992 to 19 percent by September 1999.<sup>3</sup> The blurring of the wall between bank and non-bank activities and the global nature of mutual funds are also exemplified in Japan. There, the removal of restrictions on those banks engaging in the marketing of investment trusts has resulted in an influx of overseas financial institutions to partner Japanese institutions,

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1 See Warner (1997).

2 See Lane (1999).

as the market is estimated to account for about 7 percent of global mutual funds.<sup>4</sup>

This chapter reviews strategies adopted by the leading banks operating in the major markets in the world. It begins by examining how liberalisation has contributed to the changing face of banking. The resultant drive towards the attainment of efficiency is discussed next, followed by discussions on strategies adopted by banks to corner the market, cooperative behaviour and mergers and acquisitions. The chapter concludes with a brief summary of some of the ideas presented.

## **1.2 Impact of Liberalisation on Competition and Performance**

Predictions derived from the competitive model are sometimes used to extol the virtues of liberalisation. In banking terms, an infinite source of funds, free entry and weak product differentiation by existing institutions are necessary ingredients for the market to be competitive. An important prediction of this model is that increased competition, through the entrance of new banks to the market, will erode the profits of the incumbents while putting pressure on them to improve the quality of their products. Furthermore, the model predicts that banks will compete on the basis of cost efficiency rather than price, since the demand faced by individual firms will be subdued by extreme price sensitivities in the face of intense competition. Under these conditions, each firm will be expected to do as much business as possible under the prevailing market price.

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4 See *Scramble for a Share in Japan's Mutuals*, "The Banker" 1998, December, p. 12.

Thus, it is predicted in this model that as the market becomes more competitive, banks will strive for cost efficiency rather than use interest rate spreads as a basis for increasing profits. Consumer welfare is therefore predicted to increase as lending rates fall and deposit rates increase.

While the liberalisation argument appears to be intellectually convincing, in reality, liberalisation in many countries may have taken place for different reasons. In the Latin American countries, for example, liberalisation took place largely in response to crises. State-owned banks suffered from decades of mismanagement, loan defaults, low-earning assets, and some countries suffered currency crises in the mid-1990s.<sup>5</sup> Governments were therefore prompted to deregulate the sector and remove capital restrictions to permit foreign ownership. As a result, there was an infusion of foreign capital into the sector as foreign entities acquired banks or became minority share-holders in the sector and local banks were engaged in consolidation exercises. The end result has been capital strengthening, growth in intermediation through increased deposits and loans, growth in profitability, and increased efficiency.

It is instructive that while the competitive model predicts that additional firms will be attracted by excess profits earned by the incumbents, the tendency in many markets has been for the number of banks to be reduced following liberalisation. In Latin America, foreign entrants in many instances acquired troubled banks, preferring to expand organically. The number of banks did not increase as a result. In the advanced industrialised countries, mergers and acquisitions have reduced rather than increase the number of banks.<sup>6</sup>

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5 See Robert Taylor (1998 b).



Banks and non-banks in the advanced industrialised countries have aggressively sought to dominate markets and raise their performance levels.<sup>7</sup> The forces of globalisation and technological advancement created a fertile environment for such activities to take place. Accordingly, the deregulation of the financial sector, the opening up of markets, and the withdrawal of government from direct involvement in the financial market, along with advances in telematics, computers and data processing, have revolutionised the industry.

From a developing country perspective, however, it can be argued that liberalisation may also create turf for larger global players who have the resources to overpower smaller indigenous firms. Indeed, it is a very small percentage of banks in the world that can be considered global players, despite the existence of thousands of banks. Seventeen of the leading banks possess half of their business overseas and, in most cases, these banks originate from the advanced developed countries (See Table 1.1). Moreover, the continued spate of mergers can potentially lead to a small elite group of suppliers that are likely to dictate the market. Thus, financial liberalisation may not necessarily imply a competitive market. Rather, it may lead to the dominance of a few transnational firms in the market. On the other hand, it is possible for banks indigenous to developing countries to hold their own. In Latin America, for example, following liberalisation and macro-economic adjustments, an increasing number of domestic banks have been able to reflect efficiency levels comparable to those of banks emanating from the US and Europe.<sup>8</sup>

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7 For example, foreign entrants in the Mexican market sought to differentiate themselves through aggressive marketing, retail branch expansion and product innovation (See Robert Taylor (1998a)).

8 See Robert Taylor (1998b).

**Table 1.1. Country of Origin and the Number of Banks with Over Half of their Business Overseas**

<b>Number of Banks with Over Half of their Business Overseas</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Country of Origin</b>	United States	Switzerland	The United Kingdom	Austria
	-	-	France	Netherlands
	-	-	-	Belgium
	-	-	-	Ireland
	-	-	-	Germany
	-	-	-	Australia

**Source:** Tabulated from "The Banker." February 1999, pp. 40-41.

Despite the impetus towards liberalisation, some countries have imposed prudential regulations even steeper than measures that have been adopted internationally. Unfortunately, higher prudential requirements can result in inertia in the liberalisation process as one form of regulation is exchanged for another. The United States Federal Reserve in 1991, for example, toughened regulation on entry of foreign banks into its markets by passing the Foreign Bank Supervision Act (FBEA). This act required foreign banks to prove that the county in which they were registered supervised their banks on a comprehensive and consolidated basis (CCS). The legislation effectively limited foreign participation in the domestic market, since not every country is capable of

meeting the CCS standards in the short-term.<sup>9</sup> There may be a trade-off, however, between prudential regulations and the contestability of the banking market. High prudential requirements improve soundness, but reduce the threat of new entrants, so that existing banks may take advantage of their market power to generate abnormal profits. On the other hand, deregulation makes the banking market more contestable, but increases the fragility of the banking sector.

### **1.3 Efficiency as a Source of Prosperity**

While widespread liberalisation and technological developments have exerted pressure on banks to improve their efficiency, it is not yet known for certain that improved efficiency increases shareholder value. Barfield (1998) studied 26 of the leading banks in the world for the period 1992 to 1997, showing that the correlation between lower average costs and higher average shareholder value was weak.<sup>10</sup> Nevertheless, those banks failing to be efficient can find themselves being marginalised by tightened interest rate spreads or they may expose themselves to the threat of acquisition. Accordingly, banks have attempted to gain efficiency through technological acquisitions, outsourcing, and cross-selling.

#### ***1.3a Efficiency Gains Through Technological Acquisition***

Modern-day banks are now able to use technology to improve the efficiency of distributional channels, utilise outsourcing and improve real-time transactions. Moreover,

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9 See Wing (1999).

10 Normally a strong negative relation is expected.

banks can reach customers over a wider geographical area without incurring the costs associated with branches. Indeed, telebanking, internet banking, ATMs, and plastic cards now complement or replace physical branch networks. In fact, European countries have been innovators in electronic cash and home banking systems.<sup>11</sup> In Britain alone, it is estimated that at least six million people frequently use telebanking, while one million conduct their banking through the use of personal computers.<sup>12</sup> Also, the number of ATMs in use in that country doubled between 1986 and 1996. At the same time, the innovating banks were able to save on costs, as evidenced by the decline between 1989 and 1996 in the number of bank branches by 25 percent and a decline in staff levels by 23 percent.<sup>13</sup> As a further example, the Italian Banca Mediolanum does not contain any branches, and yet it has had a phenomenal success at offering telebanking services. After beginning this service in 1997, a year later it had at least 110,000 customers, signing them up at a rate of over 10,000 per month.<sup>14</sup> With the use of modern technology, banks can therefore reach much further in expanding operations across geographic spaces without incurring efficiency losses. This is especially beneficial to rural communities.

There is no doubt that the technology is available to enable banks to develop more cost-effective ways of conducting business; such technology allows banks to save on the cost of setting up a physical branch.<sup>15</sup> In spite of this, start up and fixed costs associated with electronic commerce can be quite high. Chase Manhattan, for example, budgeted US\$250 million for the year 2000 for investment in e-commerce

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11 See Douroux (1999).

12 See Fleming (1999).

13 See Nellis (1998).

14 See Lane (1999).

15 See for example, Stoneman (2000a).

projects.<sup>16</sup> However, variable costs are minimal, so that once banks recover their start up costs, profits can soar as their customer base expands.<sup>17</sup>

Banks that are not spending funds on improving their distributional channels can find themselves left behind. In India, for example, only about 8 percent of bank branches were computerised and there were about 360 thousand persons per ATM.<sup>18</sup> Moreover, Indian banks were estimated to invest less than 1 percent of their wage bill in technology compared to American banks which were estimated to invest 25 percent of their wage bill. Nine new private sector banks were allowed to start operations in 1993, and they took advantage of the modern technology, including ATM facilities, networked branches, and a central database. These banks have been able to make inroads into the customer base of the other banks. Naturally, pressures are on banks to keep up with their competitors.

### *1.3b Outsourcing*

Modern technology has also allowed banks to outsource those aspects of their operations that are not part of their core activities and in which they cannot achieve lower unit costs as they expand.<sup>19</sup> At the same time, the firms from which the banks purchase products can themselves achieve lower unit costs by specialising in the production and selling of these products to many customers. Indeed, there is evidence that more banks in the United States are outsourcing a greater number of services.<sup>20</sup> PPH Mortgage Services in the United States is a prime example

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16 See Cline (2000).

17 See O'Connell (1999).

18 See *E Banker* (April 1998) p 5.

19 See Bigbie (1996).

20 See Donald Taylor (1999).

of an outsourcer, selling mortgage services, including origination, processing, underwriting, and servicing to over 700 banks, brokerage firms, and insurance companies such as US Bancorp and Merrill Lynch.<sup>21</sup> A case can be made for outsourcing by banks with small sums of managed funds. Given the high cost of hiring investment managers and the inexperience of banks in this area, banks may be able to save on transactions cost by outsourcing to larger mutual funds companies, while maintaining their brand name.<sup>22</sup> Examples of other areas in which outsourcing has been attempted are software writing, procurement and facilities management.

While there are merits to outsourcing, in the long term it poses certain dangers to the banking industry. Outsourcing can result in a loss of business to component suppliers, with an increasing share of the profit margin accruing to these external parties.<sup>23</sup> Moreover, it can result in the easy entry into the industry of new competitors who can simply purchase and assemble component parts. Banks can therefore lose market power as well as the ability to differentiate their products. In the end, profit margins can be skewed in favour of the sellers of outsourced services rather than the bank that is acting as the final retailer.

### *1.3c Cross-Selling*

Another source of inefficiency is attributable to the rise in average unit costs as a bank increases the number of products it offers. For a bank to realise a fall in average unit cost, the costs associated with producing a combination of products need to be complementary. Otherwise, offering multiple products

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21 See Donald Taylor (1999).

22 See Welsh (2000).

23 See comments of Clayton Christensen, in Klinderman (2000).

would be a strategic error if there exists a more cost efficient product line that is demanded by consumers. Thus, a bank has to determine which products belong together. This question is difficult to settle in practice since its solution depends on other factors besides costs. These factors include the pattern of customer demand, the rigour of competition and the strategies of competitors.

In order to reduce such inefficiencies, Deutsche Bank split its operations into five autonomous divisions - Retail and Private Banking, Corporates and Real Estate, Global Corporates and Institutions, Asset Management, and Global Technology and Services - before acquiring Bankers Trust in 1999 to become the largest bank in the World.<sup>24</sup> Further, there was a proposal by a former chief executive officer of Barclays, to the board of directors in October of 1998, to split Barclays Bank into two separate entities since, in his view, the two did not complement each other.<sup>25</sup> Rather, the split would have allowed the market value of the stock for their retail segment to rise, thus giving it a sounder basis to attempt a merger with another retail bank or life insurance company, while, on the corporate side, that entity could have gained synergies from linking with a more complementary partner. An interesting but unresolved question that can be raised here is whether retail banking, insurance, and pension funds are more complementary than retail banking and corporate banking. The jury is still out on this.

In their quest to achieve scope economies from selling multiple products in a competitive environment, universal-type banking has gained prominence in many countries, especially

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24 See *A Customer-Focused Bank*, "Euromoney (January 2000)" Sponsorship statement.

25 See Flemming (1999).



those in Europe. Banks have combined the selling of insurance products, mutual funds, and asset management. European financial firms have been leaders in cross-selling banking and insurance products. Lloyds TSB, for example, has been highly successful, with 22 percent of its US\$3.7 billion profit in 1998 attributed to cross-selling.<sup>26</sup> In general, banks in Britain have been able to reduce their dependence on income generated by interest rate spreads, and have been relying more heavily on income generated by fees and commissions through cross-selling of products.<sup>27</sup>

It is unclear, however, whether cross-selling can be easily replicated by financial firms, especially those operating outside of Europe. The success of this experiment outside of Europe has been varied. An entity which has been successful at selling multiple-product lines to customers outside of Europe is Banco Itau of Brazil. This firm recorded the highest return on equity in Latin America (25 percent) and its market value was almost double its book value for the period 1998/1999. A primary reason for this was that its customer base consisted mainly of large middle-class or wealthier clients who were estimated to use an average of 3.8 of the bank's products.<sup>28</sup>

Consumer response to cross-selling is crucial to the success of the universal banking-type model. Banks in the United States have found that consumers there tend to be fearful of the risks involved in lumping all their savings in the care of one firm.<sup>29</sup> Moreover, consumers are unclear as to how prices for individual products offered by the same institution compare to what would be obtained in specialist markets. Banks may attempt to lure consumers through bundling of services

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26 See O'Connor (1999).

27 See Nellis (1998).

28 See Rich (1999).

29 See Giltner and Ciolli (1999).

or by offering tied services. Bank Boston in the United States, for example, has promoted bundled products.<sup>30</sup> A typical package can include a cheque account, overdraft protection, and a savings option. The danger of adopting this strategy is that managers may lose sight of the fact that profitability is driven by usage, rather than the number of products used.<sup>31</sup> That being the case, the same balances a customer may have maintained on one service may simply be spread over various services. At the same time, a bank may incur additional overheads for offering a variety of services. Cross-selling does not necessarily imply increased business, therefore.

Factors which may be critical to successful cross-selling and improved performances in profitability and efficiency include the regulatory environment, the competitiveness of the environment, marketing and distributional networks, institutional culture, and skills.<sup>32</sup> For example, the extent to which insurance and banking firms can share information with each other, such as names, addresses, and medical records, matters to the ability of firms to achieve synergies from cross-selling. In addition, where customers remain loyal, the sale of cross products becomes easier. Furthermore, the ability of the firm to underwrite, design and manufacture customised products, as well as to sell insurance products through branch networks is crucial, since it allows the firms to capture and retain most of the revenue. However, it may take several years before firms develop the capability of performing the various tasks necessary for success. For example, the bank-assurance firm, Lloyds TSB in Britain, has benefited from years of experience dating back to a series of mergers since 1972. Organically achieving lower unit costs through cross-selling of products requires extensive information gathering and data

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30 See England (1999).

31 See Giltner and Ciolli (1999).

32 See O'Connor (1999).

mining on consumers' spending habits and financial needs. In fact, the sustainability of universal banking is debatable, given the scale of required capital resources and the complexity of managing such an operation.<sup>33</sup>

#### **1.4 Cornering the Market**

The ability of banks to dominate the market is seriously challenged by the existence of non-banks. In the United States, for example, technology has allowed non-banks to intrude with instruments such as commercial paper, mutual funds, and securitization.<sup>34</sup> Non-banks have become credit specialists and credit-scoring experts, an area that was previously considered to be the domain of banks. Moreover, most types of non-banks in the United States appear to offer superior compensation packages to professionals, thereby giving banks stiff competition in luring high-quality human resources.<sup>35</sup> The diversity of human capital acquired has also allowed non-banks to widen the services offered. Banks have responded by broadening their intermediation activities through fee-based services, asset management, and consultative selling, among others.<sup>36</sup> But even then, the intensity of competition has left banks in a perpetual struggle to find ways to corner the market. They have responded by attempting to corner the market for sourcing and use of funds by finding a blend of distributional channels to outdo their rivals, as well as using segmentation strategies in marketing their products.

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33 See Flemming (1999).

34 See comments by Clayton Christensen in Klinkerman (2000).

35 See statistics produced by the Association for Investment Management and Research, Russell Reynolds Associates. Cited in Ryan (2000).

36 See Klinkerman (2000).

### ***1.4a Competing for Sourcing and Use of Funds***

Competition can be thought of as taking place in two spheres. First, banks compete with each other and with non-banks for sourcing funds, and second, they compete for the returns on the use of the funds. In sequencing the formulation of their strategies, banks may attempt to compete to corner the market for sourcing funds in order to dominate the market for the use of funds. Accordingly, the tendency would be to seek rapid market share expansion in sourcing funds. An alternative strategy is for banks to attempt to take measures to maximise their returns on their existing market share of funds before seeking to expand. Banks using this strategy would be satisfied with a small market share in the short-run, while pursuing strategies to increase returns. Yet another approach would be to pursue a blend of the two strategies.

Banks are pressured into adopting some form of strategy since substitute products offered by non-banks continue to invade the turf traditionally reserved for them. They are forced to find ways of parrying the threats of their rivals in order to corner the market for sourcing and using funds. Moreover, the forces of technological advancement and liberalisation have a profound effect on the actions and competitive outcome of the market.

### ***1.4b Distribution of Services***

In the quest of banks to corner the market for the use of funds, innovations in distributional systems, customised services, and branding are becoming increasingly important devices for outdoing their competitors in winning and maintaining customers.<sup>37</sup> These are particularly important as

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37 See Nellis (1998).

customers are more sophisticated, being able to shop around the world for services that satisfy their demand.<sup>38</sup> Moreover, customers demand speed, convenience, product choices, and competitive prices.<sup>39</sup> Domestic banks therefore need to find ways of erecting entry barriers by anticipating customer needs, forming long-term relationships, and creating stronger brands. Thus, the leading banks in the world are seeking to differentiate their services in response to the competitiveness of the modern-day market.

Technology is being used to exploit a blend of distributional channels other than bank branches in order to reach the customer. However, the use of distributional methods other than branches poses the danger of creating low customer retention rates and a high rate of customer defection, as a result of weakened customer loyalty.<sup>40</sup> Because of this, banks can find themselves substituting costs on physical branch networks with expenditure on marketing and compensation packages for information technology (IT) personnel. For example, brand promotions constitute between 45 and 60 percent of expenses of Yahoo, Amazon.com and E\*Trade.<sup>41</sup> Another reason for the heavy expenditure on marketing and IT personnel is that innovations by one firm are quickly replicated by competitors.

The challenges of the internet as a distributional channel have convinced some banks of the necessity of using a different organisational ethos, compared to the traditional bureaucratic structure which characterises their operations. The new culture

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38 See Timewell (1996).

39 See Crutchfield (1998).

40 See Collins (1997).

41 See O'Connell (1999).

is one that calls for agility and creativity. Banks therefore need to employ human resources capable of using the information technology to maintain high-quality contact with customers. For example, tele-consultants must be capable of responding immediately to queries and develop expertise at educating customers, if banks are to differentiate their products from their competitors' through this medium. Financial firms such as CitiCorp and Chase Manhattan have created e-citi and chase.com respectively as semi-autonomous units with some degree of freedom from the normal stream of bureaucratic control in order to allow creativity and flexibility.<sup>42</sup>

One area of the internet technology which banks in the United States have attempted to penetrate is that of on-line consolidation of bills, for example, electricity, water, telephone, and cable bills.<sup>43</sup> The two main suppliers of such a service are Check Free Holdings Corp. and the Microsoft-led TransPoint Consortium, both non-bank firms. However, some banks such as Wells Fargo and Company, First Union Corp, and Chase Manhattan Corp have attempted to enter this market by cooperating together to form Spectrum LLP, where bills processed by the various banks would pass through Spectrum.

The viability of various distributional channels in the future ultimately depends on customer preferences. Given the uncertainty concerning the prospects of the array of distributional channels available and the lack of clarity concerning the technological sophistication of the market, some banks are hedging by having a foot in the various channels. To some extent, however, the result has been cannibalisation of existing channels. For example, the Bank of Montreal launched M banks in 1996 as a separate subsidiary, gained 170, 000

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42 See Johnson (2000).

43 See Stoneman (2000 b).

customers, but found that 80 percent of these customers emanated from the parent company.<sup>44</sup> In terms of technological sophistication of customers, an estimated 63 percent of US households own personal computers, but only 12 percent are estimated to use them for bank transactions.<sup>45</sup>

### *1.4c Market Segmentation*

Instead of attempting to corner the entire market, banks in the advanced industrialised countries have also actively searched for lucrative segments. Research by the First Manhattan Consulting Group shows that the top 20 percent of the customers of a bank account for most of the profits, while the bottom fifty percent of the customers contribute very little to profits.<sup>46</sup> This finding encouraged some banks in the United States to go after profitability segmentation by seeking high-value customers while adopting measures to discourage those at the lower end of the market. In this model, customers are typically divided into three categories, *A* to *C*, with the most profitable customers located in category *A* and the least valuable located in category *C*. Those in *A* are accorded more time and face-to-face contact than any other category, as banks actively seek to woo and retain them. Those in *B* are sold cross-products, while those in *C* are encouraged to either drop out or use less face-to-face contact, leaving personnel more time to pursue the high-value customers in Category *A*.

There are challenges associated with this type of measure, however.<sup>47</sup> For one thing, market segmentation may be sensible only if there is an upward trend in customer demand

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44 See O'Connell (1999).

45 See O'Connell (1999).

46 Cited in Stoneman (1999)

47 See Stoneman (1999).

within the segments for the products offered by the respective banks. Otherwise, the bank may be better off concentrating on new product areas. Secondly, it is uncertain how customers react to measures aimed at encouraging or discouraging their participation; and banks do not know which customers in which segments are likely to open new accounts in the short term. Thirdly, differences in behaviour and utility within segments complicate strategies. Finally, it is debatable whether customers in Category C can be simply dismissed as not contributing to profitability, since they may at least contribute to cover the variable cost of providing services to them.

Market segmentation may be better complemented by an approach that is centred on meeting customer needs.<sup>48</sup> In this approach, banks seek profitable relationships in segments A to C by analysing customer demand and adapting their organisational process to satisfy the needs of their customers. Information systems are therefore used to gain insights into customer usage patterns, their requirements, and further profitable opportunities. Customers in Category A are sold tailor-made products through consultative selling. For the customers in Category B, products are packaged to fulfil their needs and the interface with bank personnel is reduced compared to what obtains in the case of customers classified in category A. Banks therefore engage in cross-selling at this stage. Some banks, including First Merit Corp. and Akron Ohio, have given customers reward incentives for pursuing multiple relationships with them. On the other hand, the transactions of customers in Category C are catered for through lower-cost delivery systems and increased fee income on specific products.

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48 See Giltner and Ciolti (1999).



To further corner the market and maintain customer loyalty, banks may seize the opportunity to branch out according to population drift in the case of retail banking or they may follow their corporate clients across international borders in order to maintain customer loyalty. Latin American banks, for example, have been extending their operations to Florida, in pursuit of migrant Latin Americans and corporations that are concentrated there, as well as to accommodate those who would like to keep their funds out of Latin America, where there may be the perceived threat of political and economic instability.<sup>49</sup>

### **1.5 Can Banks Cooperate to Achieve Prosperity?**

Given the intensification of competition in the banking industry, an interesting issue relates to the likelihood of banks seeking a cooperative strategy as a means of maximising their profits. Widespread cooperation may be more likely in a non-competitive atmosphere; where the survival of banks is seriously threatened by new entrants from within or outside of the sector; or where consumers have demonstrated low switching costs, moving between banks. Moreover, collusion between banks can implicitly take place in an oligopolistic setting, where there is a follower-leader situation. Under such circumstances, the followers may take their cue from the price leader.

Cartelisation of banks may be discouraged by authorities, where it is deemed to be detrimental to consumer welfare, since it is felt that such firms may utilise their market power to widen interest rate spreads or increase fee income. Many countries employ antitrust regulation to bar collusions or mergers where these would lead to an unacceptable degree of market

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49 See Wing (1999).

concentration. Yet in order to further their international ambitions, the temptation exists for the largest banks in a domestic market to merge. For example, the Canadian regulators did not allow mergers to take place between its largest banks – Royal Bank of Canada with Bank of Montreal, and Toronto Dominion with Canadian Imperial Bank of Commerce – in 1998, ruling that it would have led to an unacceptable concentration of power, which would have reduced competition in retail branches, credit cards, and full brokerage, and create inertia with respect to addressing prudential concerns.<sup>50</sup> The proposed merger forced the competition Bureau and the government to examine the kind of financial architecture desirable for that country.<sup>51</sup>

Within domestic markets, cooperation between banks may take place in a limited sphere of activities. For example, banks may cooperate with each other with respect to plastic cards. In Italy, two hundred banks have cooperated to run the national card processor, the Societe Per i Servizi Bancari (SSB). However, banks may seek strategic alliances with firms specialised in other segments of the financial sector or with firms outside the sector. SSB of Italy has formed a strategic alliance with the credit card giant, Visa International, to allow compatibility between the cards produced by both of them. In the United Kingdom, Tesco Supermarket and National Westminster Bank cooperated to launch a loyalty card which enables banks to shop at the supermarkets and conduct cash withdrawals at the Supermarket's chain stores. Sainsbury supermarket and the Bank of Scotland also formed a similar alliance in Scotland, under the name Sainsbury bank.

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50 See "Canadian Banks Fall Flat," *The Banker*. January, 1999, p 4.

51 See "Canadian Regulator Outlines its Position on Mergers," *The Banker*. August 1998, p. 5.

Banks may also cooperate where such cooperation would facilitate payments in a manner that increases profits and reduces transactions cost and risks. In Europe, the introduction of the Euro has brought together several competing payments providers, all requiring cooperation of banks. Ultimately, those that would be the dominant ones are those that can produce the greatest cost and benefit advantages for a significant proportion of banks.

Even when banks decide to form strategic alliances, there remains the issue of whether both parties would maintain distinct identities within the relationship. For example, in the United States where up to 1997 there were about fifty branded regional networks of banks, the issues concerning how individual banks can maintain their brand name and customer information have been actively debated.<sup>52</sup> Network brand names such as Bits, Visa, and MasterCard require bank cooperation and participation, yet they rival individual bank brands, system brands and third-party brands. Thus, cooperation has threatened to undermine proprietary bank brands, thereby causing banks to lose their identity and, by implication, threatening to destroy brands as a basis of competition. Destruction of brands as a basis of competition can have social consequences, since cooperation can amount to a cartel-like operation that enables banks to extract monopoly rents. As a result of the problems associated with banks maintaining separate identities after cooperation, only a subset of banks may cooperate, perhaps deliberately excluding others with the intention of driving them out of the market. In addition to identity and brand erosion, cooperation through strategic alliances raises other issues such as who owns the customers,

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52 See Wallace (1997).

whether privacy can be maintained despite sharing needed information with partners, and whether profitability would be increased through cooperation or through a do-it-alone type of strategy.<sup>53</sup>

## **1.6 Mergers and Acquisitions**

Acquiring banks often strive to expand market share and achieve efficiency through reductions in staff and branches. With regards to mergers between banks and non-banks, synergies may be gained through knowledge-based activities.<sup>54</sup> Knowledge-based activities involve sharing of information at the point of sale or through some algorithm. These methods involve database mining, examination of contact records, tracking and referral systems, as well as improving sales through increasing efficiency of branches.

Strategically, banks may engage in a spate of mergers to further their national and international ambitions. This is evident in Europe where it is widely held in banking circles that with a common currency and a single market, only a few elite banks will dominate the market and such banks will control at least 20 percent of the market share.<sup>55</sup> However, at the moment, while the largest banks in Europe are very significant in their domestic market, they are still minute when the entire population of 300 million in the Euro area is considered. These banks are therefore preoccupied with gaining market share so as to reach the finish line as winners when the consolidation process is over. It is also believed that banks in the Euro area need critical mass in order to be on the cutting edge of technology and, very importantly, to establish

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53 See Taylor (1999).

54 See Sirower and Nicholson (1999).

55 See Fairlamb (1999).

a brand name. Brand name is even more critical to winning customers and establishing customer loyalty *via* virtual banking, especially as the tendency is to place less emphasis on establishing branches. It appears to be the case, therefore, that banks in the Euro area are engaging in mergers to further their international ambitions and to stave off takeovers.

### *1.6a The Race to Expand*

The level of cross-border mergers has been quite low in comparison to domestic mergers. In the United States, merger activities within national borders were intense in the 1980s and 1990s, evidenced by the fact that the number of banks declined by 37 percent over this period.<sup>56</sup> In fact, the rate of mergers in the United States oscillated over a range of 304 and 443 per year between 1992 and 1998.<sup>57</sup> Such mergers were boosted by the repeal of laws prohibiting interstate banking and, later, by the removal of the Glass-Steagall restrictions on cross-sector financial mergers. Banks responded by first consolidating within their domestic markets before launching out into interstate mergers by the mid-1980s. They were able to grow rapidly in asset size through aggressive acquisitions. NCB Corp., for example, emanating from North Carolina, grew largely through aggressive acquisitions from an asset level of US\$7.7 billion to be the sixth largest bank in the United States in 1999, with assets worth US\$618 billion. Conglomeratisation in the United States has reached the extent where about 77 percent of the assets of banks was controlled by 43 holding companies by mid 1999.<sup>58</sup>

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56 See Bennett (1999).

57 Cited in Monohan (2000).

58 See Ryan (2000).

In Europe, only 23 of the 170 bank mergers in 1998 were cross-border events while the rest took place within national borders.<sup>59</sup> The low level of cross-border mergers can be attributed to cultural and logistical barriers, as well as to a preoccupation with bank consolidation within national borders as banks prepare to launch out into the Euro area.

Banks emanating from the advanced industrialised countries have penetrated the Latin American market, being attracted to its large population and its low saturation by banking activity, compared to Europe and the United States. Banks in Spain, for example, have sought refuge from the fierce competition in Europe by entering the Brazilian market.<sup>60</sup> The strategy of these banks has been to acquire troubled banks in Latin America cheaply and then grow organically. Banco Santander of Spain bought two troubled banks in Brazil for a total of US\$703 million in 1997. HSBC Holdings PLC of the UK bought a distressed bank also in Brazil for US\$940 million. Probably the most extreme has been Bilbao Vizcaya Argentaria (BB VB) of Spain, which bought the distressed Brazilian bank, Banco Excel Economico, for less than a dollar in 1998.

### *1.6b Drawbacks of Mergers*

In contrast, mergers of large and sound banks in the advanced industrialised countries tend to be expensive. The costs of merging include payment for goodwill, the degree of compatibility between different cultures and technical systems, and post-merger continuity and restructuring. The high costs of mergers often require management teams with ready access to capital. High projected returns to shareholders are often

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59 See Ryan (2000).

60 See Hieronymus (2000).

needed to lure financiers. Lloyds' of the UK acquired a leading mutual funds society for US\$2.9 billion and a savings bank (TSB) for US\$15.3 billion later in the same year (1995).<sup>61</sup> They were able to record a high post-merger profit of 30 percent by 1999. In the United States, bank merger deals moved from under US\$30 billion in 1992 (an average of just under US\$63 million per deal) to over US\$250 billion in 1998 (an average of over US\$630 million per deal).<sup>62</sup> Nine mergers alone, between 1997 and 1998, recorded a cumulative cost of US\$60 billion, each one being over US\$1 billion.<sup>63</sup> In addition, post-merger expenses can be very high. In the United States, Wells Fargo incurred US\$1.2 billion in post-merger related expenses by the first quarter of 1998, following its acquisition of First Interstate and Norwest.<sup>64</sup>

The risks associated with mergers are also quite high. Key personnel may leave during or after the merger and it may be very expensive trying to integrate different cultures. Deutsche Bank, for example, found itself having to allocate about US\$200 million as an incentive package to retain key personnel in its merger with Banker's Trust.<sup>65</sup> The longer the period over which the bargaining process takes place, the easier it is for competitors to capitalise on the resulting uncertainty and attract key personnel from the institutions proposing to merge. Indeed, banks that choose to grow organically may find it cheaper to acquire key personnel from their competitors, rather than launch takeovers. Thus, an acquired bank may lose value rapidly if its key human

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61 See Fleming (1999).

62 See "Merger Trends," *Banking Strategies*, September/October 2000. p. 74.

63 See Bartfield (1998).

64 See Blanden (199b).

65 See Blanden (1999).

resources exit not too long after. For example, the loss in key personnel caused the proposed merger between Germany's largest banks, Deutsche Bank and Dresdner Bank, to be called off in 2000. Even though the deal would have created the second largest bank in the world with US\$1.25 trillion in assets, the deal failed as the delay in reaching agreement was causing Dresdner to haemorrhage from the loss of key investment bankers.<sup>66</sup>

Besides the loss of key personnel, banks also face the daunting task of merging different cultures in the shortest transition time possible. The problem is worsened when banks try to merge with non-banks. Potential drawbacks include weakened managerial controls, differences in performance attributes and risks, incompatibility of information systems, and stresses as a result of inadequacies of centralised management.<sup>67</sup> On the latter point, managers may not be sensitive to the specific needs associated with performance targets. In cases where cost economies are to be gained through staff reduction, uncertainties among staff can leave the organisation paralysed. There is the additional problem that the magnitude of the acquisition premium creates expectations about the post-merger performance that may not be realistic. Moreover, as banks grow larger, they may lose touch with customers. While they may be preoccupied with reducing costs and expanding market share, insufficient attention may be paid by banking personnel to the development of a sales culture. As such, many challenges confront banks simultaneously as they seek to merge.

The problems can escalate as the banks doing the acquiring can find themselves becoming targets while

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66 See Fairlamb and Reed (2000).

67 See Monohan (2000).



undergoing transitional periods after the merger. For example, Core States Financial Corp. of Philadelphia, a bank which exhibited high earnings before acquisition, was itself taken over by First Union as it grappled with the fallouts from its merger with a medium-sized bank holding company.<sup>68</sup> Furthermore, profitability may not necessarily increase after the mergers. While Italy recorded 935 mergers at the end of 1997, post-merger efficiency did not increase, due especially to the inflexibility of labour.<sup>69</sup> Given the competitive nature of the market, profitability declined as interest rate spreads were depressed and the banks were unable to contain operating costs. The banks which realise synergies through mergers are more likely to be those that have met the challenge of post-merger integration through better planning. Experience is therefore an invaluable tool in this respect.

While banks may be able to adopt deliberate policies to contain costs after mergers, generating increased revenue growth post-ante has proven itself to be elusive. A study of shareholder returns following mergers in the 1990s in North America showed that only 18 percent of the acquirers realised increased shareholder returns.<sup>70</sup> One reason for this is that while cost cutting is in the domain of internal decision-making, revenue synergies depend on external policies.<sup>71</sup> It is the response of customers to products in the post-merger period and the ability of the financial institution to capture these responses that matter. Thus, market segmentation, understanding the responsiveness of customers in various segments to price changes, branch rationalisation with minimal customer defections, and other market variables, affect the ability of the merged institutions to realise revenue synergies.

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68 See Bennett (1999).

69 See Lane (1998).

70 See Smith (1999).

71 See Smith (1999).

## **1.7 Conclusion**

The forces of globalisation, liberalisation and technological developments have fundamentally altered the strategies pursued by banks. Widespread liberalisation has allowed banks to expand beyond their national borders, while technological developments have altered the modalities of supply of financial services. Banks have therefore engaged in unbundling and repackaging financial products and outsourcing non-core activities in an effort to find cost-effective ways of meeting customer needs. The battle over winning funds through increased customer focus has pressured banks into finding alternative methods to improve their operations. In a bid to widen their scope, these entities have also been venturing into cooperative arrangements, along with mergers and acquisitions.

It is unclear, however, whether liberalisation increases competition in the markets in the long run. Liberalisation has been accompanied by a reduction in the number of banks in many markets. The reduction in the advanced industrialised countries has occurred as banks have been consolidating in pursuit of their international ambitions. Moreover, given that there are only a few global players, these elite banks are better placed to gobble up the smaller entities within national jurisdictions.

The situation is such that if banks do not actively seek to improve their efficiency, they can find themselves left behind as their markets are invaded by foreign competitors. Efficiency may not be sufficient to improve profitability, but it can improve the ability of banks to withstand shocks and aggressive pricing policies of competitors. Outsourcing of non-core activities is one way in which banks have attempted to improve efficiency. There is the danger, however, of banks losing competitive advantage in the long term. Production processes can be easily duplicated by competitors lining up to purchase the same

services from the firms doing the outsourcing. Moreover, the latter may end up with a larger share of the profit margin. Another dilemma concerns which product combinations are complementary. For example, are retail bank operations complementary with insurance and mutual funds? The answers to these questions have implications for the structure of the organisation. There is also the issue of whether cross-selling of products is a readily exportable concept. The answer depends on consumer preference, the regulatory environment, and particulars related to the firm.

Alternative cost-effective distributional methods made possible by the information technology have still not proven to be perfect substitutes for bank branches. Compared to branches, there is the risk of lower customer retention. Also, fixed expenses associated with operating branches are substituted for marketing expenses and compensation packages for quality information technology personnel. In the end, viability of alternative distributional methods will depend on customer preference. Regardless of the distributional method chosen, banks have attempted market segmentation strategies as well as tailor-making their products to satisfy customer needs. The success of these strategies will depend on demand patterns and the reaction of customers to being targeted or not targeted.

Given the intensity of competition in the industry, some banks have sought refuge through cooperative-type agreements. Cooperation has taken place, for example, with respect to debit and credit cards, mutual funds, and the payment systems. But cooperation has its challenges. There are dilemmas, for example, concerning how to maintain proprietary brands, which information can be shared, and whether cooperation increases profitability.

Mergers and acquisitions have been another means by which banks have attempted rapid expansion. There have

been substantially fewer cross-border mergers compared to mergers within national borders, however, due to cultural and logistic barriers. Despite the popularity of mergers within national borders, they have been very expensive and risky. Costs are incurred both ex- and post-ante. In addition, banks face the risk of losing key personnel to competitors the longer the merger deal is negotiated, so they face a time constraint in uniting different cultures and information systems while keeping the customer focus.

Evidently, the financial services industry is undergoing a revolution both in terms of configuration and organisational ethos. More specifically, the banking industry is changing in structure, focus and strategies. These changes pose difficult questions for both banks and regulators across the globe.

## *Chapter 2*

# ASPECTS OF COMMERCIAL BANKING OPERATIONS IN THE CARIBBEAN

### 2.1 Introduction



The economic context within which commercial banks operate is crucial to the discussion on their performance. The economic structure of the various territories in CARICOM may in fact make the banking sector vulnerable. These economies, like many other developing ones, have been described as mono-crop producers.<sup>1</sup> Though there has been some degree of diversification, they still derive most of their revenues from a narrow range of exports. The heavy reliance on a narrow export range leaves them easily susceptible to economic shocks. Typically, they experience an upturn with the success of their export product and a decline when the supply of, or the price or demand for, their export staple falls. This feature increases the fragility of the banking sector since the fortunes of the latter are closely linked to the performance of the economies.<sup>2</sup>

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- 1 See for example, Levitt and Best (1975) for a discussion of their plantation economy model.
  - 2 Birchwood (1997) showed that banks in Trinidad and Tobago grew and contracted almost in identical manner with the business cycles of that country.

This chapter examines some of the stylised facts associated with banking in the region, given the economic context in which banks operate. Cross-sectional comparisons of the realities concerning economic size, scale of banking operations, and distribution of banking services are examined. The analysis is undertaken, drawing largely from occurrences over the period 1990-2000 across the various territories in the region. Before discussing the attributes of the banking sector, the macroeconomic backdrop against which the sector is observed is highlighted in Section 2. This sets the stage for Sections 3 and 4 where the growth characteristics and the dispersion of banking services across the region are investigated by comparing density and penetration ratios. In Section 5, the transmission of bank services to customers is highlighted. Following this, there is a discussion of trade and mergers in the region in Section 6. Some of the important findings emerging from the analysis are then outlined in Section 7.

## **2.2 Macro-economic Considerations**

In general, economic fortunes can be expected to impact positively or negatively on the fragility of the banking sector and on the ability of the sector to expand. During the last two decades, many of the CARICOM countries recorded negative growth at some stage. At least seven of these territories, Antigua and Barbuda, Barbados, Belize, Grenada, Guyana, Jamaica and Trinidad and Tobago, turned to the IMF and the World Bank for assistance. Influenced by the international financial institutions, liberalisation measures were implemented by various territories, with Guyana, Jamaica, Suriname and Trinidad and Tobago, being the most extreme. While other territories continued to use fixed exchange rates, these territories converted to different variations of floating exchange rate regimes. Liberalisation policies also permitted foreign ownership of banks in those territories that had previously implemented localisation policies.

Any attempt to compare banks cross-country should take into account the differences in the economic climates of the various sub-markets. For example, banks in high-growth economies can be expected to realise higher levels of profitability and expansion in comparison to those in low- or negative-growth ones. However, because the Caribbean has pursued similar structural and stabilisation policies, there has been a tendency for some macroeconomic indicators to converge, though with varying degrees, between subsets of countries.<sup>3</sup> Some evidence of convergence has been shown by Seerattan (1997) and later by Birchwood (2000), and Carter and Grenidge (2000). These studies revealed a tendency towards convergence of the economic growth parameter in the region.

For the period 1991 to 2002, the CARICOM territories grew at an average rate of 2.4 percent per annum (See Table 2.1). Most of the territories consistently recorded positive growth. However, the fluctuating fortunes of the economies are evident as no economy maintained high growth rates throughout each of the sub-periods. By the last sub-period, 1999-2002, only three territories – The Bahamas, Belize and Trinidad and Tobago – realised average growth rates of over 2 percent.

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3 See Clarke and Danns, 1997.

**Table 2.1: CARICOM Real Growth Rates (%)**

Countries	Average 1991- 1993	Average 1994- 1996	Average 1997- 1998	Average 1999- 2002
Bahamas, The	0.4	1.8	2.8	2.9
Barbados	-2.9	3.5	3.7	0.7
Belize	5.6	2.2	2.7	6.6
Guyana	7.9	7.2	2.5	1.3
Jamaica	1.2	0.1	-1.6	0.8
ECCB Area	2.9	2.1	3.5	1.3
Suriname	1.6	0.7	4.1	0.9
Trinidad & Tobago	-0.3	3.5	3.3	4.3
Average	2.1	2.6	2.6	2.4

**Source:** Calculated from Report on the Economic Performance and Convergence of the CARICOM Region, May 2003.

Over the entire period, commercial banks in the majority of islands within CARICOM operated in a low-inflation environment (See Table 2.2). However, for a limited period, three territories, Guyana, Jamaica and Suriname, reflected inflation rates beyond single digits. The high inflation rates in these countries coincided with the downward movements in their exchange rates. All three territories with floating exchange rates reflected substantially reduced inflation rates by the end of 1998, compared to 1991.



**Table 2.2: CARICOM Inflation Rates (%)**

Countries	Average 1991- 1993	Average 1994- 1996	Average 1997- 1998	Average 1999- 2002
The Bahamas	5.2	1.6	1.1	2.9
Barbados	4.4	1.7	3.3	0.7
Belize	2	4	0.1	6.6
Guyana	30.7	9.8	4.5	1.3
Jamaica	50.2	27.1	9.2	0.8
OECS	3.2	2.5	2.4	1.3
Suriname	93.6	201.1	13.1	0.9
Trinidad & Tobago	7	5.8	4.7	32

**Source:** Calculated from the Report on the Economic Performance and Convergence of the CARICOM Region, May, 2003 Caribbean Centre for Monetary Studies.

Overall, positive growth and low inflation served to create a macro-environment conducive to the expansion of banking services in the majority of territories in the region over the period. However, the eventual deceleration in growth could have impacted on the expansion of banking in the region.

### **2.3 Growth of Commercial Banking**

In light of the generally favourable economic conditions enjoyed in the region, there was a rapid expansion of the banking industry over the period 1990-2003. During the thirteen-year period, assets of Commercial banks more than

tripled, as they grew from US\$7.5 billion in 1990 to US\$25.8 billion by 2002.<sup>4</sup> During that period, deposits more than tripled also, growing from US\$5.6 billion to US\$17.8 billion, while loans outstanding moved from US\$4.8 billion to US\$13.2 billion.

The rapid expansion of banks largely reflected the momentum created by strong growth between 1990-1998. During the period, the sector grew at a rate of 18 percent per annum (unweighted average), owing principally to high growth rates exhibited by the industries in Guyana and Jamaica.<sup>5</sup> However, in similar fashion to the decline in economic growth between 1997-2001, in the majority of territories the growth of the banking sector decelerated.

Generally, growth of assets and deposits outstripped that of loans. This is consistent with the evidence by Birchwood and Nicholls (1999), who found that loans have been declining in the asset portfolio of banks in Barbados, Guyana, Jamaica, and Trinidad and Tobago over the last two decades. They attributed this to inertia in long-term investment demand for domestic savings and, in the short run, to supply factors such as credit rationing.

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4 The balance sheet statistics in the paragraph exclude Suriname, because of the sharp movements in its exchange rates and, consequently, radical changes in the evaluation of balance sheet items in US\$. However, when Suriname's data for 2002 are included at the official exchange rate, combined assets in the CARICOM area stood at US\$ 26.3 billion.

5 The sector grew in Guyana at a rate of 29.3 percent, and in Jamaica at a rate of 34.8 percent. The closest growth rate to these was 13 percent recorded by St. Kitts and Nevis.

**Table 2.3: Average Growth of Bank Assets in the Caribbean Community**

Year	Assets	Loans	Deposits
<b>Weighted Average<sup>a</sup></b>			
1991-1993	10.9	11.2	10.7
1994-1996	15.3	11	13
1997-1998	20.6	20.7	33.6
1999-2002	8.3	8.1	7.7
<b>Unweighted Average<sup>b</sup></b>			
1991-1993	16.6	47.4	20.2
1994-1996	22.5	11.3	24
1997 - 1998	23.7	19.4	22.1
1999-2002	7.5	4.9	7.2

**Source:** Calculated from respective Central Bank Statistics.

**Notes:** <sup>a</sup>The overall average is influenced by industry size per country.

<sup>b</sup>Each industry per country is weighted evenly.

In the face of the rapid expansion of bank activities, there were a few instances of troubled banks, particularly in Barbados, Guyana, Jamaica, Montserrat, and Trinidad and Tobago. The worst case, and perhaps the most instructive, occurred in Jamaica where six of the nine commercial banks found themselves in severe financial difficulties between 1995 and 1997. These banks were all locally owned and were estimated to account for about 60 percent of deposits.<sup>6</sup> The list

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6 See Bonnick (1998).

of troubled institutions extended to insurance companies, merchant banks, and building societies. The Jamaican authorities initially responded by bailing out depositors. They went on to form a company called the Financial Sector Adjustment Company (FINSAC). This company had the responsibility to rehabilitate, acquire or close the distressed firms. Subsequently, a forensic examination of the failed banks attributed their problems to too many competing banks and insurance companies, poor credit management, poor controls, and other inefficiencies.<sup>7</sup>

The banking collapse in Jamaica also reflected difficulties in supervising new organisational structures as Jamaica's financial system moved towards the formation of groups. Each group made attempts to include a commercial bank, a merchant bank, a building society, a life and general insurance trust, and a leasing company. The formation of groups meant a shift from the Anglo-Saxon system of banking towards a more universal type of banking as found in continental Europe.

In Trinidad and Tobago, the Central Bank in September 1993 took over the operations of three indigenous commercial banks, National Commercial Bank of Trinidad and Tobago, the Workers Bank (1989) Ltd, and the Trinidad and Tobago Cooperative Bank. Two of these banks were government-sponsored – with mandates to finance equitable development rather than seek mere profit maximisation. In the end, these banks reflected risky portfolios, inadequate capital, and declining profitability.<sup>8</sup> Other banks in the region needing financial restructuring were Barbados National Bank, Guyana National Cooperative Bank, and Bank of Montserrat. Thus the rapid expansion of banks was also accompanied by a few

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7 See Bonnick (1998).

8 See Nelson (1995).

cases of financial distress, therefore necessitating an intervention by policy makers.

## **2.4 Relative Size of Bank Operations**

As expected, the relative size of banking operations in the various territories, as measured in terms of assets, strongly corresponded to the level of GDP of the respective territories (See Table 2.4).<sup>9</sup> However, the markets contrasted sharply in terms of relative size. The two largest of the 14 sub-markets, Jamaica and Trinidad and Tobago, together accounted for an average of 56.4 percent of total GDP and 45.5 percent of bank assets of the corresponding regional aggregates for the period 1999 to 2002. When combined with the next two largest sub-markets, The Bahamas and Barbados, the four territories accounted for 83.5 percent of GDP and 77.2 percent of bank assets for the same period.

The severity of the differences in relative bank sizes has profound implications for intra-regional trade in the sector. It would seem to suggest that banks in the largest territories have a strong advantage in terms of scale. They would therefore be in a better position to raise larger sums of capital compared to banks in the smaller territories. Moreover, their overwhelming asset size, compared to the size of indigenous banks in smaller markets, allows them to be the more likely candidates to buy banks in smaller markets. These banks may therefore be more likely to dominate intra-regional trade in banking services. Thus, a scheme of financial integration would need to take into account the extreme differences in

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9 Among the various countries, the correlation between GDP size and bank asset size for the period 1990 to 1998 turned out to be 0.82. By the period 1999 to 2003 the correlation was 0.98.

**Table 2.4: Comparative Size and Importance of Banking in the Caribbean Community (1999-2002)**

<b>Countries</b>	<b>Nominal GDP at Factor Cost US\$ Millions</b>	<b>Relative Size</b>	<b>Assets US\$ Millions</b>	<b>Relative Size</b>	<b>Density US\$ (000)</b>	<b>Relative Size</b>	<b>Penetration</b>	<b>Relative Size</b>
Antigua & Barbuda	586.5	8	927.9	5	13.3	3	1.58	4
Bahamas	4867.3	3	4823.9	3	16.1	1	0.99	8
Barbados	2540.9	4	2669.2	4	9.9	4	0.99	9
Belize	797.4	5	555.6	9	2.3	10	0.70	12
Dominica	222.8	13	301.3	13	4.3	8	1.36	7
Guyana	324.0	10	547.8	10	6.1	5	1.69	3
Grenada	706.7	7	646.0	7	0.8	13	0.91	10
Jamaica	7110.6	2	5156.4	2	2.0	11	0.71	11
Montserrat	30.6	14	62.8	14	-	-	2.05	2

**Table 2.4: Comparative Size and Importance of Banking in the Caribbean Community (1999-2002) - Continued**

Countries	Nominal GDP at Factor Cost US\$ Millions	Relative Size	Assets US\$ Millions	Relative Size	Density US\$ (000)	Relative Size	Penetration	Relative Size
St. Kitts and Nevis	283.0	12	632.0	8	15.8	2	2.23	1
St. Lucia	561.2	9	811.0	6	5.4	6	1.45	6
St. Vincent and the Grenadines	286.9	11	443.0	12	4.0	9	1.54	5
Suriname	733.8	6	458.2	11	1.1	12	0.63	14
Trinidad & Tobago	8340.8	1	5584.1	1	4.3	7	0.67	13

**Source:** The data contained in the Table were computed from data obtained directly from the various Central Banks.

**Notes:** GDP, Assets, Density and Penetration ratios are calculated as averages for the period 1999 to 2002.  
 a: Density is calculated as the ratio of bank assets to population; b: Penetration is calculated as the ratio of bank assets to GDP at factor cost (Column (3) / Column (1)).

the sizes of the sub-markets and banking operations and the possible polarity of trade in financial services in favour of the larger territories.

The importance of banking services to economic activity in the various regional economies was assessed, using density (assets to population) and penetration (assets to GDP) ratios to make comparisons. These ratios yield some insight into the degree of intermediation performed by banks with respect to real economic activity. There appeared to be an inverse relation between the size of GDP and penetration of banking activities in the region, given the negative correlation of -0.77 that was obtained when the rankings were compared for these variables. Indeed, the largest economies exhibited the lowest penetration ratios, suggesting that these economies possessed greater capacity to absorb new entrants, than the smaller territories. At the other extreme, the smaller territories – Antigua and Barbuda, Guyana, Montserrat, and St. Kitts and Nevis – exhibited the highest penetration ratios. The smaller economies therefore appeared to be more saturated by banking activities than the larger ones.

The relation between density of bank operations and market size appeared to be weak, given the correlation of negative 0.26. Accordingly, not many generalisations were suggested by the evidence concerning the relation between the scale of bank operations and participation of the general population.

## **2.5 Distribution of Banking Services**

The distribution of banking services was examined in terms of the number of branches and ATMs (See Table 2.5). Not surprisingly, the number of branches in each sub-market was strongly related to the size of the economy, as measured



in terms of GDP.<sup>10</sup> There was very little association, however, between accessibility to bank branches (as measured by the ratio of population to bank branches) and either the size of sub-markets or the scale of operations. However, when accessibility was compared to what obtained in the USA and the UK, it was evident that the accessibility to bank branches was lower in most of the territories in CARICOM than in these developed countries. In fact, only Antigua and Barbuda, The Bahamas, and St. Kitts and Nevis exhibited ratios within the range recorded by these advanced industrialised countries. Thus the scale or intensity of bank branching in the region was generally not as extensive as in the advanced industrialised countries.

Banks have also been engaged in diversifying their distribution through the use of automatic teller machines (ATMs). The use of automatic teller machines (ATMs) has greatly enhanced accessibility to bank branches, as evidenced by the population to ATM ratio. Aggregated data were not available for the OECS. However, among the non-OECS CARICOM territories, Barbados and Trinidad and Tobago have been leaders in this respect, as the ratio of the number of persons per machine in those territories is lower than that of the others. In addition to the number of ATMs, the ability to use cards in ATMs of competing banks improves customer convenience. In spite of this, not all of the territories offer integrated ATM cards capable of being used in the ATMs of other banks.

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10 The correlation between the ranking of GDP in Table 2.4 and the number of bank branches in Table 2.5 turned out to be 0.85.

Table 2.5: Distribution of Banking Services in 2000

Countries	Number of Bank Branches	Ranking	Number of ATM's	Population to Branches (000)	Ranking	Population to ATM's (000)
Antigua	16	10		4.4	3	
Bahamas	89	3	47	3.3	2	6.3
Barbados	47	4	60	5.7	5	4.5
Belize	21	7	21	8.6	7	11.4
Dominica	7	13		10	9	
Grenada	17	9		5.3	4	
Guyana	29	6		2.7	13	
Jamaica	177	1	164	15.1	12	15.7
Montserrat	2	14				
StKitts & Nevis	14	11		2.9	1	
St Lucia	20	8		7.5	6	
St Vincent & the Grenadines	12	12		9.2	S	
Suriname	34	5		12.4	II	
Trinidad & Tobago	123	2	254	10.8	10	5
Total	606					
UK (1996)				5		
USA (1996)				4.6		

**Source:** Population data for the ECCB Area were obtained from the ECCB. Population data for the other countries were obtained from the International Financial Statistics. The number of bank branches for the Caribbean was obtained from respective publications of the central banks. The number of bank branches for the UK and USA was estimated from *Bank Profitability*, Organisation for Economic Cooperation and Development, 1997.

## **2.6 Openness and Industry Dynamics**

Unlike the 1970s where some territories attempted to establish a programme of nationalisation, the financial markets in most CARICOM territories are presently quite open to the entry of foreign banks, barring prudential regulations. It is interesting therefore to examine the effect of openness on the dynamics of the industry. Whereas economic theory predicts that under a state of liberalisation the number of competitors will increase in the long run as long as firms are making abnormal profits, as shown in Chapter 1, this has not been the experience of Europe or the US. Rather, the number of banks in these markets reduced following financial liberalisation and regionalisation.

An examination of the data emerging from CARICOM reveals that the region shares a similar experience in this respect. The number of banks by territory remained fairly stable up to 1998, but then was reduced by 11 percent by 2003 (See Table 2.6). The reduction in the number of banks was principally due to merger activities. Some of the domestic bank mergers within territories took place through the initiatives of government. This was particularly so for Jamaica and Trinidad and Tobago where the Financial Sector Adjustment Company (FINSAC) and the Central Bank, respectively, facilitated the merging of troubled banks. But private sector mergers also took place. The most significant was the merger of the Caribbean operations between Canadian Imperial Bank of Commerce and Barclays to form First Caribbean International. This had the effect of reducing the number of banks in each territory, where the two entities

Table 2.6: Number of Banks in the CARICOM Area by Territory

Year	The Bahamas	Barbados	Belize	ECCB Area	Guyana	Jamaica	Suriname	Trinidad and Tobago	Total
1990	9	7	4	42	5	11	6	8	92
1998	9	7	4	44	7	9	7	6	93
2003	8	6	5	39	6	6	7	6	83

**Source:** Data are compiled from information obtained from the individual Central Banks across the CARICOM Area.

previously existed.<sup>11</sup> The decline in the number of banks in the region have been gradual, however, as mergers have taken place at a slow pace compared to the OECD group of countries.

When examined according to ownership, the number of banks in the region turned out to be much smaller than when they were classified by territory. Indeed, the number of banks, according to ownership in 2003, was 45.8 percent of the total number of banks according to territory.<sup>12</sup> This is as a result of the fact that a large number of banks in the region are under cross-border ownership structures.

In fact, seven competing interests own forty-four banks across the region (See Chart 2.1). The most extreme is in the OECS where all the foreign banks have operations across that sub-region. The entities with banks in the most territories were First Caribbean International Bank, and RBTT bank, the latter being a regional interest.

Cross-border ownership by regional entities is now evolving, but it is relatively small compared to extra-regional interests. In 2003, regional entities accounted for 13 percent of the total number of banks found according to ownership (see Chart 2.2). Extra-regional interests accounted for 50 percent of the total number of banks according to ownership, and most of these banks operated cross-border in the region.

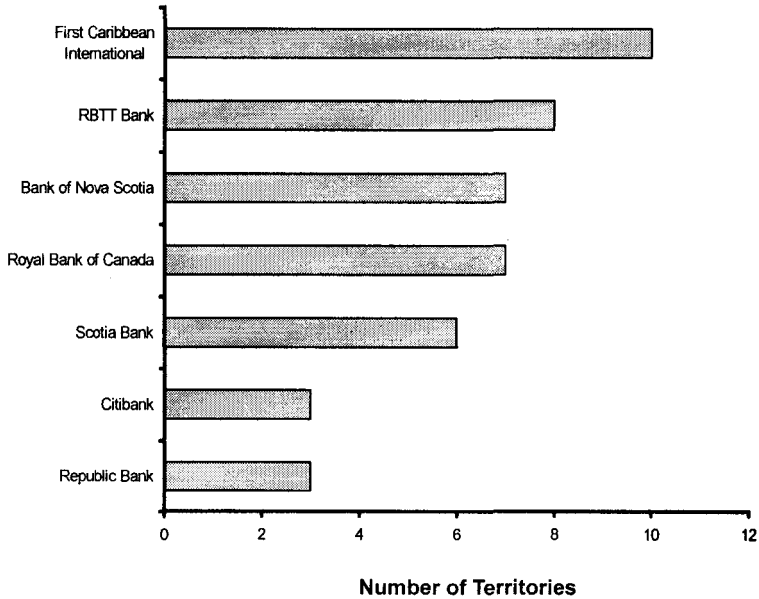
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11 There was also the merger between Republic Bank and Bank of Commerce in Trinidad and Tobago, though the effects of this on the number of banks were counter-balanced by the entry of a new bank into the market.

12 The actual number of banks, according to ownership, was 45. The ownership of one bank is not publicly known, so that the figure is subject to correction by one bank.

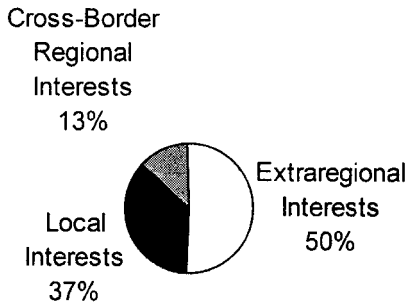
**Chart 2.1**

**Distribution of Cross Border Ownership of Banks (2003)**



**Chart 2.2**

**Ownership Structure of the Banking Industry in the Caribbean Community (2003)**



The evidence suggests that if the banking industry in the region is fragmented, the fragmentation is likely to be more severe on the demand side, rather than on the supply side. On the supply side, a sizeable proportion of the banks share common ownership and therefore they can be expected to share in the supply of services, trading of liquidity, and distribution of foreign exchange across territories.<sup>13</sup> Moreover, some movement towards the standardisation of internal controls can be expected.

On the demand side, however, cross border demand for services is not a strong feature of the region, especially at the lower end of the market. Despite the existence of technology to allow for the transportability of banking services, it is not typical for consumers to move to banks outside of their territory to bid down lending rates, fees, or bid up deposit rates by engaging in arbitrage. Transactions costs and foreign exchange controls perhaps prevent this from occurring. Hence the dynamics, especially at the lower to medium end of the market, do not force cross-border regional convergence of interest rates. As a result, the same bank functioning in different markets is likely to charge different interest rates.

In spite of the fact that domestic markets are open to banks reflecting cross-border ownership, local banks have been able to hold their own. The percentage of banks with either majority or complete local ownership can be used as a crude indicator of the degree of local control over the industry. The degree of local control can be affected by market barriers generated by statutory measures or by the competitive strategies of incumbents. In addition, govern-

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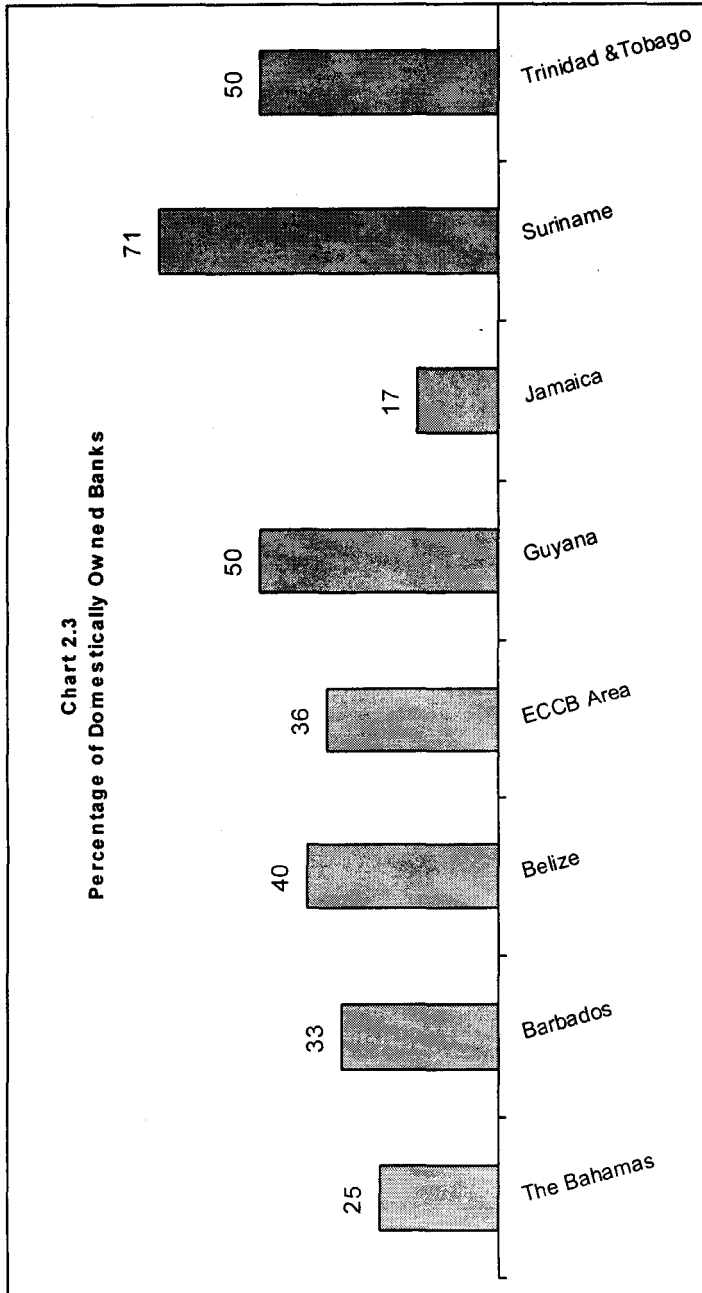
13 Cross-border investment banking is indeed taking place, but aggregates are yet to be compiled in this respect.

ment policy actions, limitations in market size, technological developments to improve transportability of services and the global strategies of foreign banks can also impact on the entry of foreign banks.

Theoretically, in markets where there is a high degree of local ownership, monetary policy measures to contain liquidity may be easier to execute since there is limited recourse by incumbents to markets outside of the country. The management of foreign currency trading by banks is also easier to monitor and regulate. Moreover, supervision is made easier, since bank inspection can potentially capture more information on the scope of the operations of the local entities. The downside of this, however, is that locally controlled banks may be more susceptible than their foreign counterparts to adverse developments in the economy. In contrast, while foreign banks may perhaps be more resilient than local banks in responding to domestic macro-economic shocks, monetary policy and supervision systems are made more complex by the presence of foreign entities. Indeed the liquidity of foreign banks is not limited to the ambit of the monetary authorities, but also encompasses other jurisdictions outside the control of the monetary authorities. Similarly, the presence of foreign banks creates a need for greater external cooperation among supervisory authorities, in order to address supervisory concerns.

At present, the markets where the monetary authorities have the least control are Jamaica, The Bahamas and Barbados (See Chart 2.3). Accordingly, while the health of the foreign banks may not be directly related to the fortunes of the economy, cooperation with international jurisdictions on supervision matters assumes greater urgency in these countries.





The picture as it pertains to monetary policy can be made more complex by the level of importance of the non-bank financial institutions. In Guyana and Suriname, for example, despite the higher degree of local ownership of commercial banks, the cambios account for a large percentage of the foreign currency trade. They therefore weaken the control of the central banks on the foreign exchange market. Moreover, the style of monetary policy that would be most effective depends on a wider array of factors besides institutional ones. These factors include the choice of exchange rate regime, and objectives of the monetary and fiscal authorities.

## **2.7 Conclusion**

Undoubtedly, the intermediation role of commercial banking in the region is pivotal to the economies. The sector expanded rapidly in terms of assets and deposits over the period 1990 to 2002. Growth of banking activity was complemented by high positive economic growth and low inflation levels in most territories in the region.

The scale of operations was disproportionate, however, as, of the 14 countries considered, Jamaica and Trinidad and Tobago accounted for about half of the combined size of banking operations in the region. When The Bahamas and Barbados were added, these four countries accounted for over three quarters of total assets. Differences in the levels of GDP may account for the unevenness in the scale of bank operations across the regional sub-markets. The contrast in bank size has implications for the pattern of integration of financial services in the region, an issue which needs to be further explored.

It was also noted that economic activity in the larger territories was less penetrated by the activities of banks, than in the smaller territories. Similarly, the scale of bank branching was more intense in the smaller territories than in the larger ones.<sup>14</sup> The results suggest that the larger sub-markets may therefore be more attractive to new entrants. In other words, the threat of new entrants may be stronger in the larger sub-markets. Accordingly, bank activities in these markets are more likely to be disciplined by the threat of potential entrants.

The banking industry in the region is open, and cross-border ownership structures under the control of a few entities are typical. A merger by any two of the major cross border entities can considerably reduce the number of banks in the region. Indigenous banks have been able to coexist alongside cross-border interests, and in fact, a couple of indigenous entities have been able to emerge as cross-border banks. In light of this, the fragmentation of markets is more likely to be on the demand side, as there is a fair degree of common ownership patterns on the supply side. However, given the segmentation of markets on the demand side, the role of arbitrage in bringing about convergence in interest rates is limited.

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14 The data are incomplete with respect to accessibility to ATM services, but ATMs have complemented the branch network to improve accessibility of customers to branches in the various territories. Accordingly, while the scale of the branch network relative to population can serve as a useful guide regarding customer access to banking services, ATMs and perhaps other channels of distribution would tend to distort the picture somewhat.

## *Chapter 3*

# **BANK SIZE AND PERFORMANCE IN CARICOM TERRITORIES**

### **3.1 Introduction**

**C**ompetition forces banks to continuously search for strategies to improve their competitiveness. Such strategies are influenced by the interaction of socio-economic factors, regulations, institutional factors, and advances in technology. In the present global environment, there appears to be a race by banks, particularly in the advanced industrialised countries, towards the attainment of critical mass. The urgency stems from the perception that mass is essential for banks to be leaders in the financial industry. Moreover, it is believed that expansion in assets gives banks the opportunity to position their brand name in the minds of consumers, thus facilitating the use of cost-effective alternative distributive systems that require less face-to-face interaction.

One way by which banks have attempted to hasten their ascendancy through attaining critical mass is by mergers. The spate of mergers that have occurred in mature markets in recent years raises several questions concerning how the performance of banks is related to their scale of operations. Are there contrasting performance features between, for example, small and large banks? In particular, is scale of operations important to profitability and efficiency in the context of micro-states? Are the critical strategies of banks dependent on their scale of operations? The pertinence

of these questions arises from the fact that the CARICOM area consists of micro-states and, consequently, from the fact that the demand for financial services in these states tends to be fragmented, since the latter are geographically isolated.

The objectives of this chapter are two-fold. First, it explores the issue concerning whether scale matters to the performance of banks. Second, it investigates which aspects of strategies employed by banks in CARICOM are significant to their performance. The first objective was pursued primarily by comparing means of performance attributes and by using graphs and scatter plots. These performance attributes are assumed to be profitability and operating efficiency.<sup>1</sup> Profitability was measured in terms of return on equity and net interest margin, while operating efficiency was measured in terms of the non-interest expense incurred by banks relative to the assets.

Regarding the second objective, the significance of bank strategy to profitability was investigated with the use of panel data drawn from individual banks in the CARICOM area. The method of estimation was primarily the fixed effects model. Bank strategy is used here to refer to the game plan of banks, for the realisation of given performance objectives. These strategies are assumed to be exercised through a variety of measures. Such measures include those aimed at expanding market share, attaining operating efficiency, achieving credit expansion, and maintaining a healthy equity asset mix. In

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1 Even though banks may always seek to improve upon these attributes, in reality there are short-run tradeoffs. For example, such tradeoffs may occur between profitability and bank soundness, or between cost minimisation in the short-run and long-term profitability. Thus banks may not be able to pursue maximisation of profitability or efficiency in the short-run.

addition, the logistical factors, such as the scale of branch network and inflationary expectations, are assumed to affect their performance.

The study begins with an outline of the various hypotheses to be tested through the use of panel estimation. Details concerning the econometric procedure elaborated on in Section 4. The data used for the study are outlined in Section 5 after which the performance and scale of banking operations are investigated in Sections 6 and 7. Here the means of the performance attributes of banks are compared according to the scale of operations, and the relationship between asset growth and performance is explored. The results emanating from the econometric study are then reported in Section 8, after which the study is concluded in Section 9.

### **3.2 Competitive Factors and Time Effects**

Two related hypotheses were tested: the market-structure hypothesis and the efficiency hypothesis. These hypotheses express opposing views concerning the likely behaviour of banks when they dominate the market, especially through mergers. The market-structure hypothesis states that increased merger activity among banks can result in greater market power and, as a consequence, banks with greater market power will widen their interest rate spreads while providing fewer services. On the other hand, the efficiency hypothesis states that merger activity can increase bank efficiency, which can in turn be transmitted to consumers through lower interest rate spreads.

Dynamic relationships between the strategies and performance of banks were hypothesized in order to explore the implications of various attributes of their strategies over time. To conduct the investigation, the following models were hypothesized:

$$ROE_{it} = f^1(MSA_{it-1}, BP_{it-1}, OCAS_{it-1}),$$

$$NIM_{it} = f^2(MSA_{it-1}, OCAS_{it-1}, LAS_{it-1}, INF_{it-1}),$$

$$OCAS_{it} = f^3(MAS_{it-1}, BP_{it-1}, LAS_{it-1}),$$

where  $ROE$  is return on equity derived as the ratio of net income to share holders' equity;  $MSA_{it}$  is market share in terms of the ratio of assets of bank  $i$  to industry assets at time  $t$ ;  $BP$  is the ratio of bank branches to population;  $OCAS$  is the ratio of operating costs to assets;  $LAS$  is the ratio of loans to asset;  $INF$  is inflation measured in terms of percentage growth in consumer prices; and  $NIM$  is net interest margin, which is derived as interest received less interest expense all divided by bank assets.

A variant of the market structure hypothesis, the relative market power (RMP) hypothesis, was used to test the significance of market structure to profitability. The RMP hypothesis posits that banks with a large market share can use their market power to exploit the market and increase profitability by widening interest rate spreads.<sup>2</sup> Non-rejection of the hypothesis would be dependent on whether market share is positive and significant to both profitability and net-interest margin. The latter was used as a dependent variable in the  $f^2$  relations to act as a proxy for net earning assets of the bank. The efficiency hypothesis was tested for by including the operating cost to asset ratio as a proxy for operating unit cost in both  $f^1$  and  $f^2$ . This hypothesis would not be rejected if operating unit costs turned out to be negatively

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2 Banks can also exploit their market power by increasing fees and by offering tied contracts.

and significantly related to profitability, and market share is significantly and negatively related to operating unit cost.

The scale of bank branches was included in the  $f^1$  and  $f^3$  relationships, to see whether the existing network observed in the last year is significant to the future performance of banks. Branches may be facilitative of gaining higher profitability levels if they increase the prospects for banks to win new customers and cultivate their loyalty. However, due to the availability of alternative distribution methods, branches have been criticised as being an unnecessarily expensive way of distributing services.

The volume of loans in the asset portfolio of banks was included in the  $f^2$  relations as a proxy for their exposure to credit risk. A positive and significant relationship between this variable and *NIM* can be thought of as suggesting that banks increase their interest rate spreads when the volume of their loans increases, as they require a higher risk premium to mitigate their exposure to default risk. A negative and significant relationship, in contrast, would suggest that banks are constrained by demand considerations from widening interest rate spreads in order to gain compensation for exposure to default risk. Inflation is also included as a regressor in the  $f^2$  relationships, as the magnitude of the net interest margin is expected to be influenced by the expectations of banks concerning the growth in prices. It is possible that banks would widen their interest rate spreads if they expected higher inflation. Inflationary expectations were therefore controlled for in the  $f^2$  model by assuming that banks would observe the inflation level in the last period and form their expectations of it for the next period.



The volume of loans in the asset portfolio was used as a proxy for the frequency of loan transactions in the  $f^3$  relations. Its use as a proxy in this respect is not without its flaws since the volume of loans outstanding is also a function of the magnitude of funds borrowed. However, it was used due to the absence of data on the frequency of lending.

### 3.3 Competitive Factors and the Scale of Bank Operations

Hypotheses were examined contemporaneously across different bank sizes. Banks were categorized into large, medium and small according to asset size. The following hypotheses were formulated and tested for each size category:

$$ROE_{it} = f^4(MSA_{it}, BP_{it}, OCAS_{it})$$

$$ROE_{it} = f^5(LAS_{it}, EQ_{it}, INF_{it})$$

$$NIM_{it} = f^6(MSA_{it}, OCAS_{it}, LAS_{it}, INF_{it})$$

$$OCAS_{it} = f^7(MSA_{it}, LAS_{it}, EQ_{it})$$

where  $EQ$  denotes the equity multiplier, derived as the ratio of shareholders' equity to assets.

The RMP and the efficiency hypothesis were tested for in the same way as described in the previous section. An additional functional relationship was formulated as  $f^5$  in which profitability depends on how banks manipulate variables on their balance sheets and also on their expectations concerning inflation. Inflationary expectations were assumed to influence the supply of value added services by the bank, with consequent implications for profitability. For example, banks may cut back on lending if they are uncertain

about the speed with which prices might increase in the future. On the other hand, they may increase their lending if they anticipate a stable environment.

The equity multiplier is introduced into the set of relationships as a proxy for capital strength. The primary interest here is to see if there is a tradeoff between profitability and capitalisation. The equity multiplier is also included in  $f^7$ , this time to see whether the magnitude of shareholders' equity is an influential factor on the maintenance of operating efficiency by banks.<sup>3</sup>

### **3.4 Econometric Procedure**

The covariance model is used to estimate fixed effects via pooled least squares. Calculation of the fixed effects controls for variation in the data with respect to the explanatory variables between banks and other explanatory variables that vary within banks. It is assumed that exogenous variables are non-stochastic and that they are not correlated with the error term. Furthermore, the source of random variation is assumed to lie in the error terms, which are normally and independently distributed with zero mean. In the covariance model, the intercepts are allowed to vary across banks while the slope parameters are constant across time and banks. Thus, the coefficients of the parameters are reported after controlling for individual bank effects.

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3 There is also the possibility that shareholders with larger stakes in the business will be more vigilant in supervising the bank's management, since their returns can potentially increase as costs are minimised. Moreover, lower operating costs may allow banks to better position themselves to withstand competition in the sector.

A panel of a sample of data drawn on  $N$  individuals over  $T$  periods can be expressed as:

$$\begin{aligned} y_{it} &= \alpha + \beta_2 x_{2it} + \beta_k x_{kit} + \mu_{it} \\ &= \alpha + \tilde{x}_{it} \tilde{\beta} + \mu_{it}, \end{aligned}$$

where  $i = 1, \dots, N$

$t = 1, \dots, T$ .

The covariance model of individual effects can be expressed as:

$$y_i = D_N \alpha_i' + \tilde{X}_i \tilde{\beta} + \mu_i,$$

where

$y_i$  is a  $NT \times 1$  vector of  $y_{it}$ ,  $D_N$  is a  $NT \times N$  matrix of individual dummies,  $I_T$  with a kronecker product representation:

$$D_N = I_N \otimes I_T.$$

$\tilde{X}_i$  is a  $NT \times (K-1)$  matrix of  $\tilde{x}_{it}$  vectors and  $\mu_i$  is a  $NT \times 1$  vector of errors.

The ordinary least squares (OLS) estimator is BLUE, if the explanatory variables are non-stochastic and independent of the errors, and the random error terms are independent, homoscedastic, and the mean is equal to zero.

The estimator can be expressed as:

$$\hat{\beta} = (\tilde{X}' W_n \tilde{X})^{-1} \tilde{X}' W_n y$$

$$V(\hat{\beta}) = \sigma^2 (\tilde{X}' W_n \tilde{X})^{-1},$$

where  $W_n = I_{NT} - \frac{1}{T} (I_N \otimes J_T)$  is an idempotent matrix of order  $NT$  and rank  $NT-N$ .

The model can be transformed to obtain the OLS estimators by calculating deviations from the means of the variables with respect to individual banks. Once the model is transformed, the intercepts can be obtained through the following estimator:

$$\hat{\alpha}_i = \hat{y}_i - \sum_{k=2}^N \hat{\beta}_k \tilde{x}_{k_i}.$$

An  $F$  test can be formulated to test the null hypothesis that the intercepts are equal and there are no individual effects.

### 3.5 Data

To initiate the study, financial data from a sample of commercial banks operating within CARICOM were collated, given the absence of published comprehensive data on the attributes of individual commercial banks operating in the region.<sup>4</sup> The data were compiled from a sample of annual

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4 Unfortunately, data are obtained by the monetary authorities on the basis of confidentiality, and therefore they are not accessible by the public.

reports published by these institutions for the period 1990-1996.<sup>5</sup> Aggregate industry financial data for the sub-markets were obtained from the respective central bank publications for the same period. The coverage of markets in terms of asset size is reported in Table 3.1.<sup>6</sup>

Based on the ratios, more than 40 percent of the entire industry in the region appeared to be covered by the sample in each year. The coverage of various sub-markets differed, however, with the low coverage in some sub-markets being partly due to the large extent of foreign subsidiaries in these markets, as only banks that were totally locally owned or that exhibited some percentage of local ownership were included in the sample. Furthermore, the financial attributes of the holding companies under which some banks operated were excluded, since the focus of the study was restricted to those operations that are directly in the sphere of banking, rather than on conglomeratisation.

Banks were divided into large, medium and small asset sizes in order to see whether size mattered to bank performance in the region. Large banks were classified as those with assets above US\$252.7 million (top 25 percent of the sample) and small banks were classified as those with assets below US\$45.5 million (lowest 25 percent of the sample). The intermediate range was classified as medium-sized banks.

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5 See Appendix C for a list of Commercial Banks used in the study.

6 The percentages are only a guide, as the financial year covered by the commercial bank reports varied from bank to bank, hardly coinciding with the calendar year, while the central banks' industry figures coincided with the calendar year.

**Table 3.1: Representativeness of Sample of Banks: Percentage of Assets in Sample to Industry Assets**

	1990	1991	1992	1993	1994	1995	1996
Industry	41.35	40.95	42.59	43.97	47.55	48.13	46.71
Antigua	36.91	32.91	39.95	39.95	46.68	42.28	42.31
Bahamas	13.01	12.99	13.57	13.80	16.51	17.54	17.34
Barbados	26.75	26.62	28.29	27.54	23.47	20.49	16.79
Belize	40.96	47.11	49.06	50.94	52.05	49.50	41.85
Dominica	32.48	32.38	32.36	34.69	-	36.76	37.57
Grenada	64.68	64.17	50.36	56.40	59.52	59.70	58.84
Guyana	48.86	16.88	50.75	94.24	89.35	92.17	55.62
Jamaica	47.20	43.46	42.31	40.79	42.75	41.32	35.48
Montserrat	17.59	22.42	25.43	25.51	28.56	30.31	-
St. Kitts	50.21	52.47	44.72	43.51	5.86	6.25	7.27
St. Lucia	22.47	21.00	24.35	33.43	33.65	34.95	23.22
St. Vincent	40.70	43.86	-	-	-	40.88	40.33
Trinidad & Tobago	58.60	66.33	66.33	70.43	85.12	91.75	100

Source: Individual Commercial Bank assets were extracted from the annual reports of relevant commercial banks. Industry data were extracted from the publications of the relevant central banks.

### **3.6 Implications of Size for the Performance of Banks**

To gain insights into the relevance of size for explaining the performance of banks, the performance attributes were compared across small, medium-sized and large banks, first for the entire period and then for sub-periods. The performance measures evaluated were profitability and operating unit costs. Profitability was measured in terms of the return on shareholders' equity. Operating unit cost was measured in terms of the ratio of operating cost to total assets.

An examination of the results for the entire period suggests that the scale of bank operations matters with regards to profitability (See Table 3.2). The Anova *F* statistic shows a significant difference between all three bank sizes. Medium-sized banks turned out to realize significantly the highest level of profitability. In fact, the profitability of large banks was not significantly greater than that of small banks, despite the difference in means, due to the wider variability in the performance of small banks.

In terms of operating efficiency, no significant difference between means of the various bank sizes was observed. The Anova *F* statistic did not reject the null hypothesis that the means are equal. The results suggest that the expansion in banking services in the region is not associated with the occurrence of lower operating unit costs.

The findings emanating from the overall results may mask changes in the performance of banks in relation to the scale of operations over time. An attempt was therefore made to check whether the results would remain consistent over time. Cross-sectional means of banks for the various years were plotted to observe the trend in their average performance.

**Table 3.2: Bank Performance in the CARICOM Area (1990:1996):  
Tests for Equality of Means**

Variables	Bank Size	Attributes (%)		Association between Means	ANOVA F-Statistic
		Means	Standard Deviation		
Return on Equity	All	13.7	27.2	L, M, S	6.8***
	Large (L)	12.7	19.3	L, M	3.4*
	Medium (M)	18.3	16	L, S	2.4
	Small (S)	5.2	26.2		
Operating Cost to Assets	All	4.4	1.5	L, M, S	1.6
	Large (L)	4.7	1.3		
	Medium (M)	4.2	1.8		
	Small (S)	4.4	1.3		

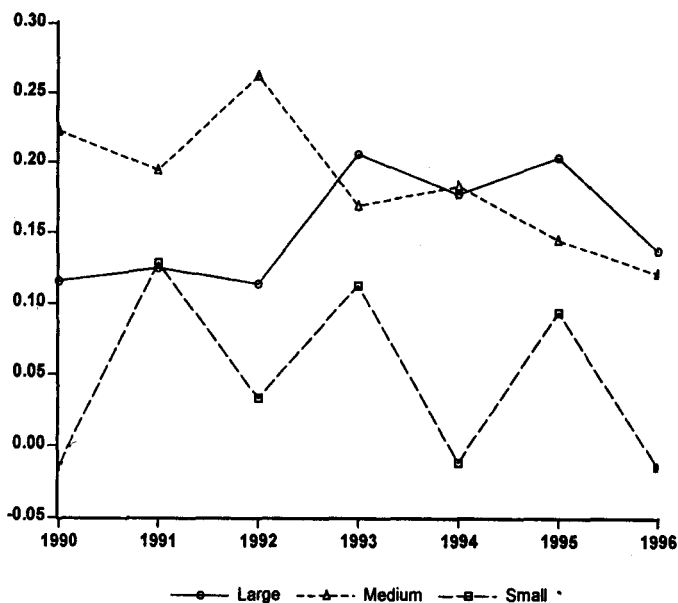
**Notes:** \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels respectively.  
The null hypothesis is that the means are equal.



An inspection of Figure 3.1 reveals that medium-sized banks did not maintain the highest level of profitability over time. In fact, large and medium-sized banks exchanged positions as profitability leaders, while small banks consistently reflected lower average profitability.

A closer look at the graphical display suggests that the relative performance of medium and large-sized banks was altered on or after 1993. To gain an idea of the comparative significance of the association between the scale of bank

**Figure 3.1**  
**Return on Equity to Assets of**  
**Banks Operating in CARICOM**  
**(Cross-Sectional Means)**

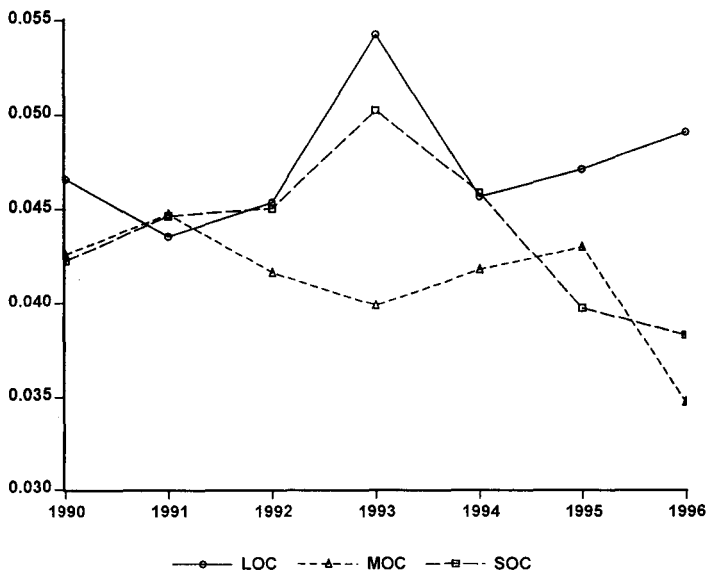


operations and their performance over time, the sample was subdivided into two distinct periods, 1990-1993 and 1994 to 1996.

The Anova results suggest that while medium-sized banks reflected the highest level of profitability in the first sub-period, their profitability in the second sub-period was not significantly different from that of large banks (See Tables 3.3 and 3.4). Furthermore, small banks did not perform significantly worse than large banks in the first sub-period. Consequently, there is no clear evidence that scale of operations is critical to the profitability of banks operating in the region. Time-specific events, such as expectations and the prevailing macroeconomic climate, may play a more important role. For example, the higher profitability of large banks in the first sub-period might have been due to the fact that they operated in economies which underwent structural adjustments at the time. Therefore macro-economic conditions of the respective economies might have had a stronger influence on profitability than the scale of bank operations.

In terms of operating unit costs, there is no evidence of this being lower, as banks operate on a larger scale (See Figure 3.2). Medium-sized banks exhibited the lowest operating unit costs in most periods, while large banks exhibited the highest per-unit costs, though both patterns were not consistently maintained.

**Figure 3.2**  
**Operating Unit Cost to Assets of**  
**Banks Operating in CARICOM**  
**(Cross-Sectional Means)**



The use of difference of means test suggests that operating unit costs did not vary significantly according to bank size in any of the sub-periods (See Tables 3.3 and 3.4). Given the consistency of this result with what was obtained for the overall period, it does not seem to be the case that banks gain significant operating cost advantages by operating on a larger scale. Qualitative factors may play a more useful role in reducing operating unit costs.

**Table 3.3: Bank Performance in the CARICOM Area (1990:1993):  
Tests for Equality of Means**

Variables	Bank Size	Attributes (%)		Association between Means	ANOVA F-Statistic
		Means	Standard Deviation		
Return on Equity	All	14.8	22	L, M, S	4.7***
	Large (L)	10.1	13.3	L, M	7.4***
	Medium (M)	21.1	17.2	L, S	0.2
	Small (S)	7.3	3.1		
Operating Cost to Assets	All	4.4	1.6	L, M, S	0.28
	Large (L)	4.6	1.3	L, M	
	Medium (M)	4.3	1.9	L, S	
	Small (S)	4.5	1.4	M, S	

**Notes:** \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% significance levels respectively. The null hypothesis is that the means are equal.

**Table 3.4: Bank Performance in the CARICOM Area (1994:1996):  
Tests for Equality of Means**

Variables	Bank Size	Attributes (%)		Association between Means	ANOVA F-Statistic
		Means	Standard Deviation		
Return on Equity	All	12.4	18	L, M, S	3.6**
	Large (L)	15.2	23.9	L, M	0.005
	Medium (M)	14.9	13.7	M, S	9.7***
	Small (S)	7.3	3.1		
Operating Cost to Assets	All	4.3	1.4	L, M, S	2.0
	Large (L)	4.7	1.2	L, M	
	Medium (M)	4	1.6	L, S	
	Small (S)	4.2	1	M, S	

**Notes:** \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% significance levels respectively.  
The null hypothesis is that the means are equal.

### **3.7 Growth and Bank Performance**

An important issue concerns whether higher levels of asset expansion are matched by improved bank performances. By expanding, banks can use their increased market power to derive greater profitability, or they can attain critical mass in order to afford quality resources. In addition, expansion in assets give banks the opportunity to improve their efficiency via scale economies. The critical issue which surfaces is how relevant asset growth is to securing improved performances by banks.

#### ***3.7a Asset Growth and Profitability***

To undertake the analysis, asset changes were matched with profitability. Only data for which there was positive growth in assets were used, since it was felt that the deterioration of assets would signal a troubled bank.<sup>7</sup> For the purpose of this study, such banks are considered outliers.

An examination of the scatter plots suggests that overall there was a fairly positive association between asset growth and profitability (See Figures 3.3a-3.3d). It would appear that while asset growth does not guarantee increased profitability, there may be some tendency in this direction, for all bank sizes. However, qualitative factors such as value added, human resources, and management performance are expected to be of extreme importance in this respect.

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7 For example, negative asset growth could signal a relatively high write-off of loans due to a significant proportion of loan delinquency in the bank asset portfolio. This might then trigger an erosion in the capital base of these banks, as the pressure on shareholders to meet their liabilities increases in tandem with the decline in assets. In view of the decline in equity, such banks can artificially exhibit higher returns on equity.

### *3.7b Asset Growth and Operating Efficiency*

The association between asset growth and operating efficiency turned out to be weak, regardless of bank size considered (see Figures 3.4a-3.4d). Indeed, the evidence did not support the normal economies of scale argument that as banks expand their scale of operations, operating unit cost is likely to fall. Rather, it seems to be the case that larger banks simply spend more resources to increase value added services. This could include investments in information technology, human capital and physical premises. It is not inconceivable therefore that banks are spending more resources to generate asset growth and therefore the economies of scale argument is nullified.

### *3.7c Profitability and Operating Efficiency*

An important issue concerns whether reductions in unit costs tend to be associated with higher profitability levels. The relationship between profitability and operating efficiency naturally falls out as a residual of the bivariate relations between asset growth and each of the performance measures - profitability and operating efficiency. Nevertheless, it is instructive to devote some attention to the issue. As shown in Chapter 2, this issue is very topical, as it is felt that amidst the battle for turf by banks and non-banks, it is the most efficient that will survive, particularly as the tendency will be for spreads to narrow. However, while the argument may be logical, it may not necessarily turn out that the most efficient banks will, in fact, be the most profitable, since banks may improve their profitability through value-added services, rather than through improvements in cost efficiency. It is useful, therefore, to examine the issue empirically to see how banks in the member countries of CARICOM are behaving.

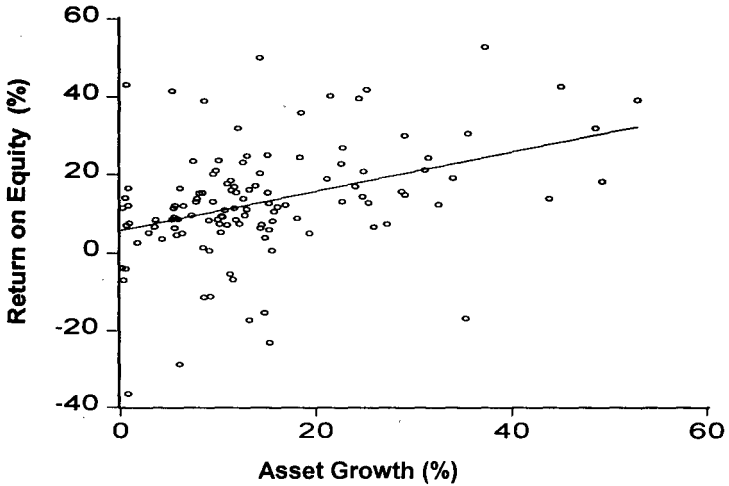
The investigation was conducted through the use of scatter plots of profitability against operating unit costs, according to bank size and for all banks (See Figures 3.5a-3.5d). A negative correlation was expected, consistent with the argument that banks with greater operating efficiency are more profitable.

A negative correlation between the variables was obtained only with respect to small banks, and even then the association was very weak. Thus, the correlation results do not support the contention that banks which reflect higher operating efficiency are more profitable. In fact, in the case of large banks, a fairly strong positive correlation appears to exist between the variables, suggesting that their increased profitability was more likely to be associated with value added, rather than with operating efficiency. Of course, the results must be taken with caution, since they are based on a cross-section of banks for a limited time period. However, they suggest that the role of value added services in increasing the profitability of banks cannot be underestimated.



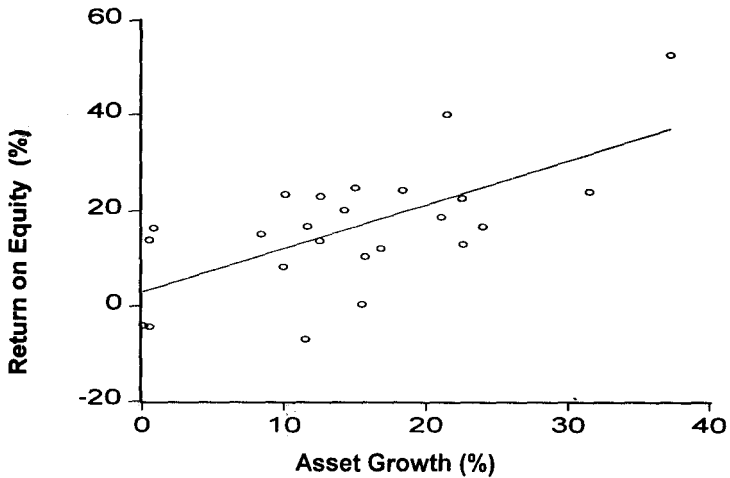
**Figure 3.3a Asset Growth and Profitability  
All Banks: 1990-1996**

Correlation Coefficient: 0.38



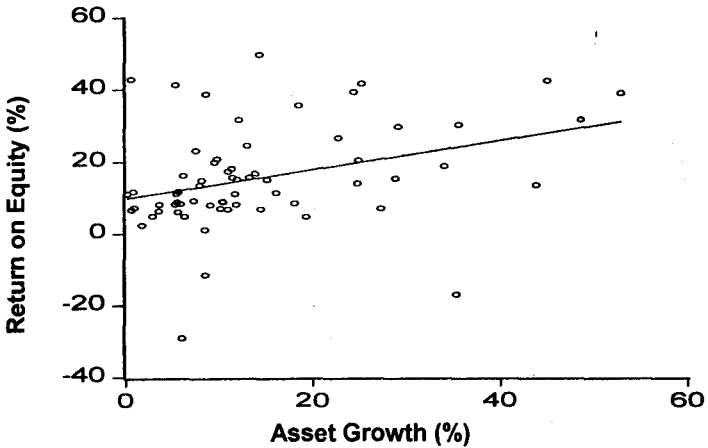
**Figure 3.3b. Asset Growth and Profitability  
Large Banks: 1990-1996 - Continued**

Correlation Coefficient: 0.65



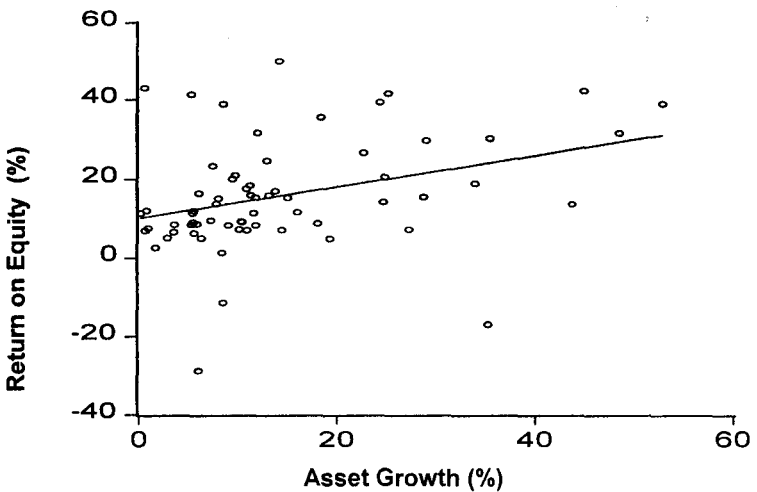
**Figure 3.3c. Asset Growth and Profitability  
Medium-Sized Banks: 1990-1996 - Continued**

Correlation Coefficient: 0.34



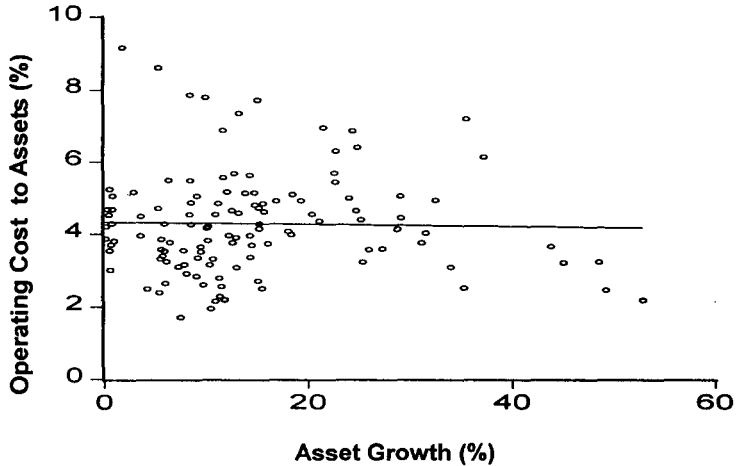
**Figure 3.3d. Asset Growth and Profitability  
Small Banks : 1990-1996 - Concluded**

Correlation Coefficient: 0.44



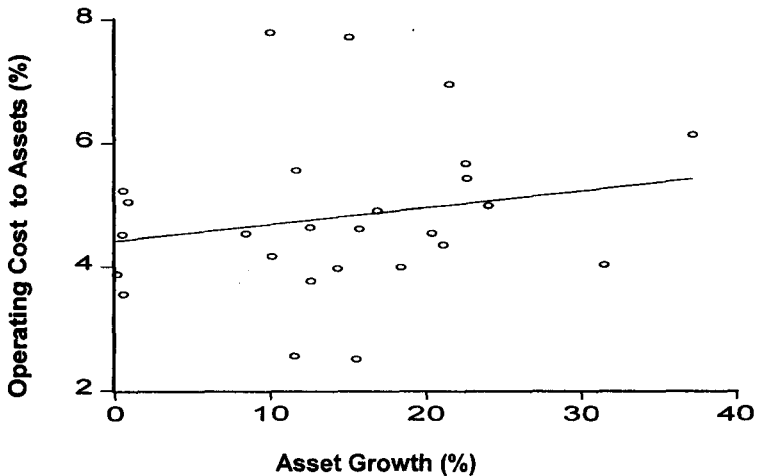
**Figure 3.4a. Asset Growth and Operating Efficiency  
All Banks: 1990-1996**

Correlation Coefficient: -0.02

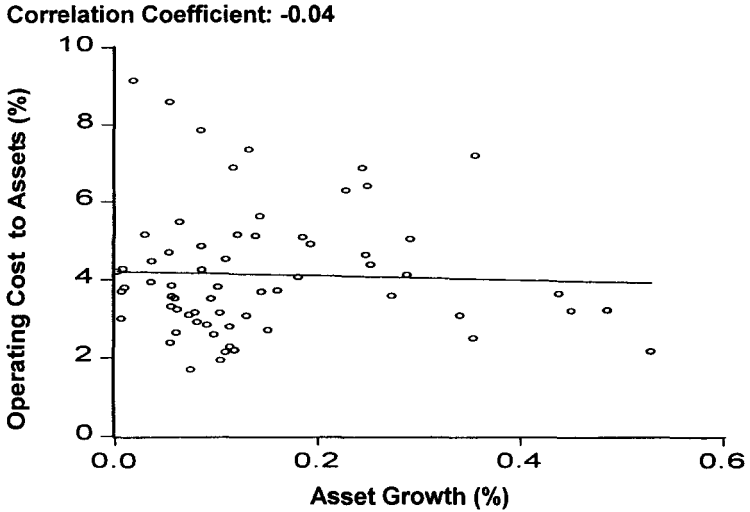


**Figure 3.4b. Asset Growth and Operating Efficiency  
Large Banks: 1990-1996 - Continued**

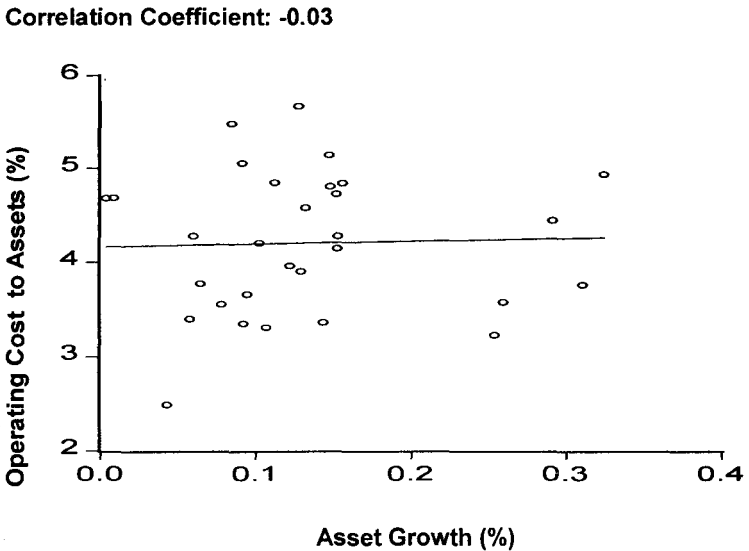
Correlation Coefficient: 0.20



**Figure 3.4c. Asset Growth and Operating Efficiency  
Medium-Sized Banks: 1990-1996 - Continued**

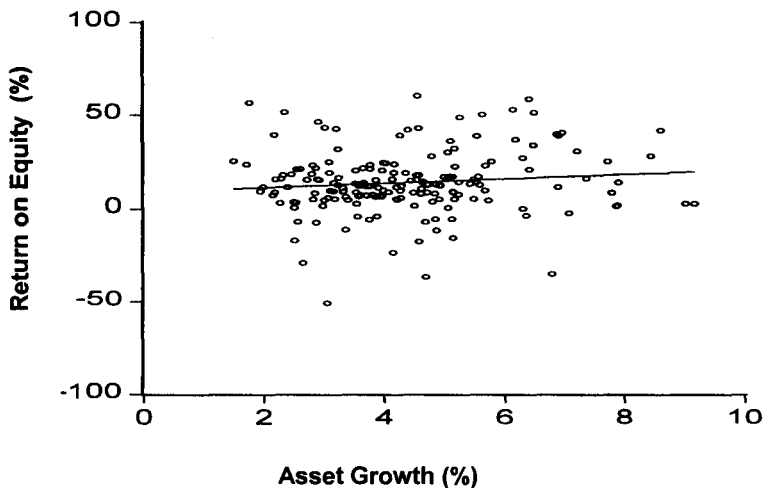


**Figure 3.4d. Asset Growth and Operating Efficiency  
Small Banks: 1990-1996 - Continued**



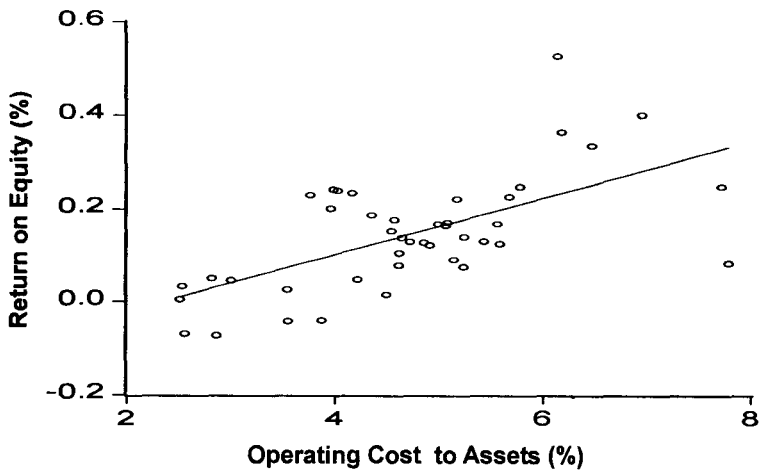
**Figure 3.5a. Profitability and Operating Efficiency  
All Banks: 1990-1996**

Correlation Coefficient: 0.11



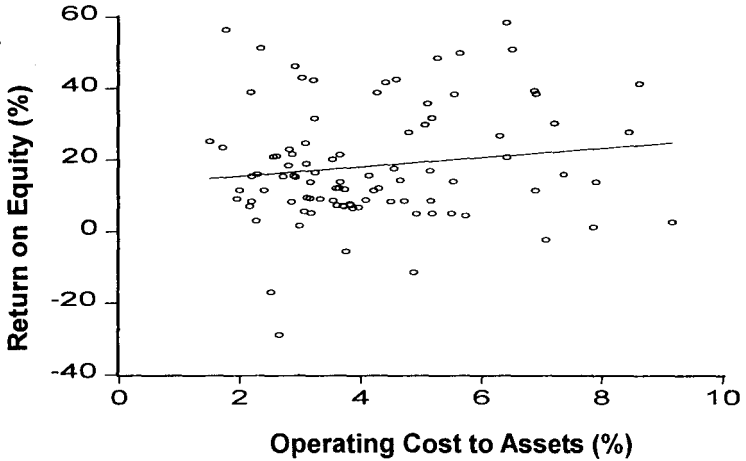
**Figure 3.5b. Profitability and Operating Efficiency  
Large Banks: 1990-1996 - Continued**

Correlation Coefficient: 0.60



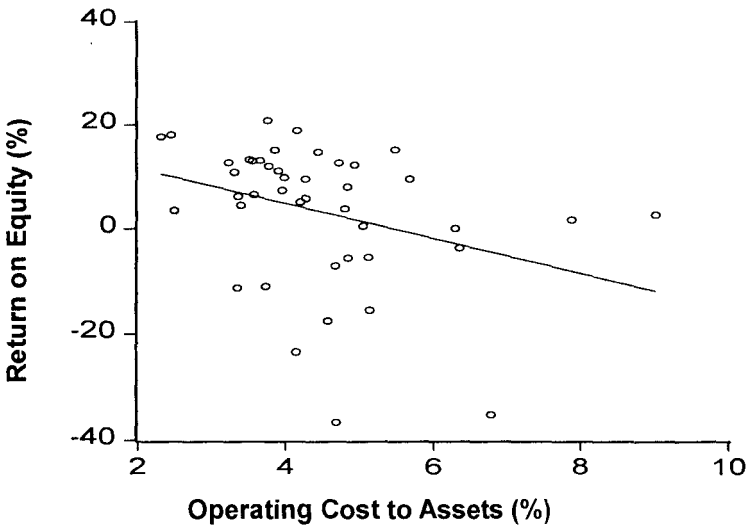
**Figure 3.5c. Profitability and Operating Efficiency  
Medium-Sized Banks: 1990-1996 - Continued**

**Correlation Coefficient: 0.14**



**Figure 3.5d. Profitability and Operating Efficiency  
Small Banks: 1990-1996 - Concluded**

**Correlation Coefficient: -0.33**



### 3.8 Findings from the Econometric Study

One of the primary interests of the study was the applicability of the RMP hypothesis to the banking sector in the region. Clearly, the conditions for confirmation of the RMP hypothesis were not met in the dynamic relations, as market share was insignificant to profitability and negative, though significant, to the magnitude of the NIM (See Table 3.5,  $f^1$  and  $f^2$ ). In terms of scale of operations, market share turned out to be insignificant to profitability, regardless of the size category considered (compare  $f^4$  in Tables 3.6-3.8). Furthermore, market share was positive and significantly related to the net interest margin only in the case of small banks (compare  $f^6$  in Tables 3.6-3.8). There is insufficient evidence, however, to accept the RMP hypothesis with respect to small banks as the hypothesis was only partially satisfied for this size category. The RMP hypothesis was consequently rejected for this and other size categories.

Another concern of the study pertained to the efficiency hypothesis. The hypothesis was rejected in the dynamic regressions as operating unit cost turned out to be insignificant to profitability and market share was insignificant to operating unit cost. In terms of size categories, the hypothesis was not rejected for large banks, but it was partially rejected with respect to medium-sized banks (Compare  $f^4$  in Tables 3.6 to 3.8). In the case of large banks, operating unit cost was negative and significant in its relation with profitability. Furthermore, market share was significant and negatively related to operating unit cost for this size category (compare  $f^7$  in Tables 3.6 to 3.8). The partial rejection of the efficiency hypothesis in the case of medium-sized banks stems from the non-significance of operating unit cost to profitability, despite the negative and signifi-

cant relation between market share and operating unit cost. The hypothesis was completely rejected, however, in the case of small banks. The efficiency hypothesis seems, therefore, to be confirmed in the case of large banks, while the evidence is insufficient to confirm the hypothesis for medium-sized banks.

Yet another area of concern of the study is the importance of lending to the performance of banks. The evidence suggests that lending by small banks is significant in increasing their profitability, while lending by large banks is not. Indeed, the volume of loans in the asset portfolio of banks turned out to be positive and significant only for the profitability of small banks (compare  $f^5$  in Tables 3.6 to 3.8). The relationship was also significant for medium-sized banks, but the quality of the association was negative. The result emphasizes the dependency of small banks on the traditional business of lending for the enhancement of their profitability. It appears, however, that large banks have been able to diversify their range of services to include other sources of revenue besides interest.

In terms of the impact of lending on operating unit costs, a positive and significant relation was found only with respect to the contemporaneous regressions for medium-sized banks. These banks appeared to be the only category size that incurs rising operating unit costs as they increase their lending (compare  $f^7$  in Tables 3.6 to 3.8). Moreover, these banks exhibited a negative and significant relationship between lending and profitability (compare  $f^5$  in Tables 3.6 to 3.8). The results suggest that they encounter rising transactions cost as they increase the frequency of their lending. Perhaps these institutions increase the resources dedicated to loans origination and recoveries as the frequency of their lending increases.



**Table 3.5: Bank Performance and Competition Variables  
(Dynamic Fixed Effects)**

	Dependent Variable		
	ROE <sub>t</sub> (f <sup>1</sup> )	NIM <sub>t</sub> (f <sup>2</sup> )	OCAS <sub>t</sub> (f <sup>3</sup> )
MSA <sub>t-1</sub>	-0.82	-0.10*	-0.04
BP <sub>t-1</sub>	4327.00***		-105.34**
OCAS <sub>t-1</sub>	-2.63	0.09	
LAS <sub>t-1</sub>		6.39x10 <sup>-3</sup>	-6.27x10 <sup>-3</sup>
INF <sub>t-1</sub>	1.20x10 <sup>-4</sup>		
R <sup>2</sup>	66.04	73.3	71.19
F Stat	74.88***	69.55***	95.11***

**Notes:** \*\*\* indicates significance at 1%, \*\* indicates significance at 5% and \* indicates significance at 10%. Sample adjusted for White Heteroskedasticity-Consistent Standard Errors and Covariance.

**Table 3.6: Bank Performance and Competition Variables: Large Banks  
(Contemporaneous Fixed Effects)**

Bank Size	Exp. Variable	Dependent Variable			
			$ROE_t$	$NIM_t$	$OCAS_t$
		$f^4$	$f^5$	$f^6$	$f^7$
Large Banks	$MSA_t$	-0.43		-0.11**	-0.06**
	$OCAS_t$	-10.55***		0.80**	
	$BP_t$	1359.49			
	$INF_t$		$3.9 \times 10^{-3**}$	$-7.67 \times 10^{-5}$	
	$LAS_t$		-0.08	0.02**	$1.14 \times 10^{-4}$
	$EQ_t$		-0.01**		$-4.4 \times 10^{-5}$
	$\bar{R}^2$	45.50	47.73	84.65	86.80
	F Stat	45.48***	26.61***	60.64***	157.20***

Notes: \*\*\* indicates significance at 1%, \*\* indicates significance at 5% and \* indicates significance at 10%.  
Sample adjusted for White Heteroskedasticity-Consistent Standard Errors and Covariance.

**Table 3.7: Bank Performance and Competition Variables: Medium-sized Banks  
(Contemporaneous Fixed Effects)**

Bank Size	Exp. Variable	Dependent Variable			
			$ROE_t$	$NIM_t$	$OCAS_t$
		$f^4$	$f^5$	$f^6$	$f^7$
Medium Size Banks	$MSA_t$	0.42		-0.11***	-0.05**
	$OCAS_t$	-3.75		0.45***	
	$BP_t$	1554.55***			
	$INF_t$		$2.34 \times 10^{-3}$	$9.13 \times 10^{-5}$	
	$LAS_t$		-0.53***	$6.39 \times 10^{-3}$	0.02*
	$EQ_t$		$4.09 \times 10^{-3}$	71.05	-4.32***
	$\bar{R}^2$	68.83	61.72	65.80	75.00
	F Stat.	77.28***	$8.51 \times 10^{31}$ ***	99.69***	146.20***

**Notes:** \*\*\* indicates significance at 1%, \*\* indicates significance at 5% and \* indicates significance at 10%. Sample adjusted for White Heteroskedasticity-Consistent Standard Errors and Covariance. NIM regression is conducted using generalised least squares.

**Table 3.8: Bank Performance and Competition Variables: Small Banks  
(Contemporaneous Fixed Effects)**

Bank Size	Exp. Variable	Dependent Variable			
			$ROE_t$	$NIM_t$	$OCAS_t$
		$f^4$	$f^5$	$f^6$	$f^7$
Small Size Banks	$MSA_t$	0.05		0.24***	0.16**
	$OCAS_t$	0.15		$9.40 \times 10^{-3}$	
	$BP_t$	-766.8***			
	$INF_t$		-0.02	$-7.82 \times 10^{-4}$	
	$LAS_t$		0.58***	0.07***	$4.5 \times 10^{-3}$
	$EQ_t$		-0.02***		$5.69 \times 10^{-4}$ ***
	$\bar{R}^2$	71.66	59.75	67.9	0.66
	F Stat	$6.54 \times 10^{32}$ ***	40.14***	23.26***	49.78***

**Notes:** \*\*\* indicates significance at 1%, \*\* indicates significance at 5% and \* indicates significance at 10%.

Sample adjusted for White Heteroskedasticity-Consistent Standard Errors and Covariance GLS applied to  $f^7$  regression.

The study also sought to investigate whether the risk premium was significant in its impact on the magnitude of interest rate spreads. The loans-to-asset ratio was found to be significant and positively related to the net interest margin in the case of small and large banks, but not in the case of medium-sized banks (compare  $f^6$  in Tables 3.6 to 3.8). Exposure to credit risk therefore appears to play a significant role in influencing the interest rate spreads of small and large banks.

The modality of supply seems to have important consequences for the performance of banks. The results emanating from the lagged relationships suggest that the scale of branch networks in the previous year is significant to profitability of the banks in the current year (See  $f^1$  in Table 3.5). However, bank size seemed to matter to the contemporaneous relation between the scale of branch networks and profitability (Compare  $f^4$  in Tables 3.6 to 3.8). It was not significant for large banks, but it was for small and medium-sized banks. The evidence suggests that small banks are likely to realise higher profitability levels through smaller branch networks. On the other hand, larger branch networks appear to favour higher levels of profitability of medium-sized banks. The results therefore suggest that despite the development of substitutes and more cost-efficient modalities of supply of banking services, existing branches still remain relevant to the enhancement of shareholder returns for banks of that size.

The association between the equity multiplier and the performance of banks was found to be specific to the scale of bank operations. In terms of profitability, the results suggest that increased capital strength of small and large banks is significant and complementary to higher levels of profitability

(Compare  $f^5$  in Tables 3.6 to 3.8).<sup>8</sup> At the same time, the relation suggests that management performance in generating returns on assets has been a significant contributor in generating increased shareholders' returns for the small and large categories.

The relation between the capital strength of banks and operating unit cost was found to be specific to the scale of bank operations. The equity multiplier was not significant in the case of large banks, was significant and positively related in the case of medium-sized banks, and was significant but negatively related in the case of small banks (compare  $f^7$  in Tables 3.6 to 3.8). Generalisations concerning this relationship therefore appeared to be difficult to make.

The macro-economic parameter, inflation, was found to exhibit a significant association with profitability only in the case of large banks (compare  $f^5$  in Tables 3.6 to 3.8). This is not a surprising result, considering that most of these banks are operating in territories that have floated their exchange rates and have reflected higher inflation rates relative to the rest of the region. On the other hand, medium-sized and small banks are located largely in territories with fixed exchange rates and very low inflation levels. Thus, it is plausible that large banks are more likely to factor in inflationary expectations in the supply of their services.

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The negative relation between the equity multiplier and profitability actually suggests a positive relation between an increase in shareholders' equity and returns, given the definition of the variables.

### **3.9 Conclusion**

The scale of operations does not appear to matter to the relative performance of banks operating in CARICOM member countries. Indeed, the differences in profitability between the various size categories did not remain robust as different time periods were considered. Furthermore, no significant difference was found in the mean operating unit cost per bank category size, regardless of time period considered.

While the scale of bank operations did not seem to matter to profitability, it mattered with respect to the significance of strategies to the performance of these banks. Most of the findings concerning the significance of strategies to the performances of banks were specific to bank size or the dynamic relation assumed to be at play. Accordingly, the study showed that depending on the scale of operations, there were differences in the significance of bank branches, operating unit cost, the volume of loans in the asset portfolio of banks, and capitalisation for the performance of banks.

Another important result concerns the relationship between asset growth and bank performance. The evidence suggests that asset growth is more likely to be associated with value-added services than with operating cost economies. The evidence is buttressed by the fact that a positive correlation between profitability and operating efficiency was only obtained for small banks, and even then, the correlation was weak. It would appear that increased profitability of banks does not necessarily imply increased cost efficiency. Instead, the increased profitability may have been the result of higher value added.

Interestingly, the evidence does not suggest that banks obtaining larger market share will widen their interest rate spreads to the detriment of their customers. Indeed, the

profitability of all size categories was found to be neutral to market share expansion. As a result, the RMP hypothesis was rejected. Perhaps this result is symptomatic of the banking market being contestable and susceptible to competition from non-banks and foreign service providers.

The efficiency hypothesis was not rejected for large banks. The evidence suggests that large banks tend to use their increased market share to generate lower operating unit costs rather than increase their interest rate spreads. Also, lower operating unit cost was significant to their profitability. On the other hand, the efficiency hypothesis was rejected in the case of small and medium-sized banks. Improved cost efficiency did not appear to be significant to increasing profitability of these size categories. Profitability of these banks seemed more likely to increase through production of higher value added services.

These findings should not be regarded as conclusive since they are largely specific to the choice of assumptions. The study was conditioned on a sample for which the division into various scales of operations was arbitrary. Moreover, results may be clouded by factors specific to countries. Further studies of this nature, with variations in assumptions and use of longer time periods and a more comprehensive sample, are needed.



## *Chapter 4*

# BANKING AND ECONOMIC GROWTH

### 4.1 Introduction



Given that the financial sector in the Caribbean is dominated by banks, an important dimension of the discussion on banking is its contribution to economic growth. It would be useful for policy makers if plausible explanations could be found for questions such as: How important is credit to achieving sustainable economic growth? Is credit allocation synchronised with the social objective of sustainable economic growth? Would the free market system necessarily allow for such synchronisation? The answers to these questions are hazy at the very least, since the relationship between savings, investment and growth is still fuzzy in terms of economic theory.

This chapter attempts to shed some light on these issues as they pertain to the CARICOM area. In the following section, the rationale is briefly set out for further research in the area. In Section 3, the intensification of banking activities in the Caribbean is analysed along with an examination of relationships between banking activities and growth. Following this, Section 4 examines the association between banking and the real side of the economy. Section 5 surveys the importance of credit to important sectors of the economy. Some underlying fundamentals regarding market issues are explored in

Section 6. Some suggestions are then made in Section 7 concerning how credit allocation can be improved, followed by the conclusion in Section 8.

## 4.2 Theoretical Considerations

There has been much debate on the nexus between finance and economic growth. This has been motivated by the fact that knowledge of such a relationship provides important clues concerning whether resources should be allocated to financial sector development in order to propel the real sector, or whether more resources should be directed at the development of the real side of the economy, with the development of the financial sector simply following. These relationships have been termed 'supply-leading' and 'demand-following', respectively.

Financial development can be thought of as supply-leading when: *creation and evolution of financial institutions precede demand for their services and economic growth* (St. Hill, 1992). In such a case, financial resources may be viewed as the principal constraint on economic development, so it makes sense for policy makers to concentrate their efforts on financial development. Indeed, the importance of the financial sector is also derived from the fact that, in any economy, savings and investment can hardly take place without some form of financial activity. Consistent with this view is the notion that the financial sector can act as a double-edged sword, either enhancing the conditions from which economic growth can be achieved, or contributing to the misallocation of resources in the economy. Assuming a supply-leading relationship, many developing countries have therefore sought to develop their financial sector by improving the range of financial institutions and instruments.

On the other hand, the demand-following relationship may in fact be the reality. The demand-following relation-

ship can be defined as occurring ...*when creation and evolution of modern financial institutions and their asset and liability instruments are a response to the demand for financial services by investors and savers in the real economy as growth occurs* (St. Hill, 1992). In such a case, the financial sector is seen as simply a veil over economic activity, so that policies should be directed at increasing investment opportunities rather than aim first for further development of financial resources. For example, high savings rates observed in the Asian economies can be interpreted to be as the result of steady growth rather than the other way around.

In spite of limited knowledge on the part of economists concerning which effect is more profound, it can be argued that banks may have important real effects which can be harnessed to create an underlying economic structure likely to promote sustainable economic growth. For example, banks may be said to play an allocative role as they can increase the prospects of economic growth by providing chosen firms with the necessary funds to augment their capital stock directly. Moreover, banks can evaluate the potential profits to be derived from innovations and allocate savings to the most "promising activities," as well as boost capital stock. Furthermore, by funding potential innovations, intermediaries improve the likelihood of innovations and, consequently, accelerate economic growth.

Banks also have the potential to increase financial capacity by removing impediments which disrupt the flow of funds between savers and investors. For example, they can improve investments since they can make investment divisible through their ability to break down transactions into smaller units per investor, lump the funds of these small savers, and execute the transaction, thereby reducing transactions cost and diversifying risks.

The thorny issue, however, is whether such potential of banks is sufficient for them to play a decisive role in the attainment of sustainable economic growth. Sustainable growth is used here to refer to the development of an internal productive capacity to sustain economic growth. For bank credit policy to be consistent with the sustainable growth objective, it is desirable that banks 1) allocate funds in a manner that allows for the financing of tradeables over non-tradeables, 2) provide financing across the lower (micro-enterprises) to the upper end (large-scale enterprises) of the credit market, 3) provide financing for the funding of established and new business prospects, 4) diversify lending across sectors, and 5) finance sectors of strategic importance.

Unfortunately, the allocation of credit can be hampered by information asymmetries. The implication of this is that credit is often not allocated to those projects which provide the optimal combination of risk and return. For example, banks may ration credit by excluding borrowers from the credit market regardless of the rate of interest they are prepared to pay. Therefore, the problem of information asymmetry can lead to market failure, causing credit allocation not to be socially optimal under a free market.

The interesting question, then, is whether credit allocation improves under a free market. To this end, the findings by Birchwood (2001) can be instructive. He conducted a survey on the credit culture of commercial banks operating in Trinidad and Tobago. His survey results suggested that institutional factors mattered to the question of whether financial liberalisation would improve credit allocation. For example, the choice of sectors targeted by banks is pertinent to how they complement the quest for development. In addition, bank lending in a liberalised market may still end up being skewed in favour of already established businesses rather than startups, and medium and large scale enterprises may receive a disproportionate share of the funding for

conventional ideas. Moreover, economic cycles mattered to the quantum of bank lending, with banks seeking to increase their share of the credit market during boom periods, but being conservative during periods of depression.

According to Birchwood (2001), some of the factors distorting the ability of the free market to channel funds to critical sectors are 1) differences in how banks conducted risk evaluation, 2) varied sensitivities of different segments of the market to loan pricing, and 3) information deficiencies. He also found that there was a lack of industry studies through which loan demand, risk ratings of customers, industries, and instruments could be gauged. He argued that these factors were further complicated by the varied factors which impacted on loan pricing, such as cost of deposits, profitability of relationship with customers, and intrinsic risk.

In many developing countries, governments have attempted to circumvent the problem of market imperfections by entering the credit market directly or indirectly through devices such as issuing subsidies on interest rates for loans to targeted sectors. Historically, however, direct intervention by governments in their local credit markets has proven to result in heavy loan defaults in many countries, thus bringing the sustainability of government intervention into question. Indeed, the lack of sustainability of such policies may be due to the fact that, as well-intended as they may be, they invariably gloss over a very important element: the risks inherent in the provision of credit financing.

Disillusioned with attempts to directly steer credit allocation to desired sectors, many countries have turned towards financial liberalisation, in the sense that governments have withdrawn from directly participating in financial markets worldwide. Greater reliance is being placed on the market for optimal credit allocation. Clearly, however, it is not sufficient to put faith blindly in the market as a means of

achieving credit allocation, given the potential for market failure to arise. A pertinent issue, therefore, is whether banks possess the capability to channel limited internal savings into activities that contribute to the sustainable economic growth objective.

### **4.3 Deepening of Banking in the Caribbean**

Available data on the CARICOM area suggest that there was a deepening of assets of the banking sector in relation to GDP in most territories, at least from 1985 to the end of 2002 (See Charts in Appendix A). In fact, bank assets in The Bahamas, Jamaica, and Trinidad and Tobago reflected an upward trend in deepening from as early as the 1970s. Grenada, St. Kitts and Nevis, and St. Vincent and the Grenadines, on the other hand, exhibited such a deepening from the 1990s. A notable exception is Guyana, where no consistent trend was observed.

The level of deepening of bank activity was higher in the smaller territories, in particular, those of the ECCB area, compared to the larger and non-OECS territories in CARICOM (see Table 4.1). In this respect, it was comparable to the level of deepening in the US, the UK, Singapore, and bank-based systems such as Germany and Japan. Yet the level of lending activities in the ECCB area and the wider CARICOM was much lower than in these industrialized countries. The depth of lending did not seem to match the quantum of assets relative to GDP as closely as in the advanced industrialized countries. This in itself may suggest that loan demand in CARICOM member countries may be stymied by the lack of real-side development to accompany the deepening of banking, compared to the situation in industrialized countries.

**Table 4.1: Deepening of Commercial Banking Activity**  
(Averages over 1985-2000)

Country	Assets to GDP	Loans to GDP	Bank Assets to Financial Assets	Loans to Assets
The Bahamas	0.61 (8)	0.49 (8)	0.77(13)	0.80
Barbados	0.70 (13)	0.38 (13)	0.77 (13)	0.54
Belize	0.56(13)	0.37(13)	0.78(13)	0.66
Guyana	0.84 (10)	0.27 (9)	-	0.32
Jamaica	0.64(13)	0.27(13)	0.63(13)	0.42
Trinidad and Tobago	0.61 (13)	0.35 (13)	0.58 (13)	0.57
Antigua & Barbuda	0.86 (13)	0.59 (13)	-	0.69
Dominica	0.86(13)	0.56(13)	-	0.65
Grenada	0.88(13)	0.57 (13)	-	0.66
St. Kitts and Nevis	1.35(13)	0.84(13)	-	0.62
St. Lucia	0.82(13)	0.60(13)	-	0.73
St. Vincent and the Grenadines	0.92 (13)	0.55 (13)	-	0.6
Germany	1.17(13)	0.91 (13)	0.94(13)	0.78
Japan	1.27(13)	1.12(13)	0.49(13)	0.88
Malta	0.73(13)	0.63(13)	0.82(13)	0.86
Mauritius	0.49 (13)	0.34(13)	-	0.69
Singapore	0.94 (13)	0.83 (13)	-	0.88
United Kingdom	1.00(13)	0.97(13)	-	0.97
United States of America	0.76 (13)	0.67 (13)	0.42 (13)	0.88

**Source:** Assets and loans for CARICOM territories were extracted from the monthly statistical publications of the different Central Banks. GDP data were extracted from the IFS statistics, line 99b. The ratio of the assets of banks to total financial assets was extracted from the data-base developed by Demirguc-Kunt and Levine (2001). Assets to GDP and Loans to GDP for non-CARICOM territories were also extracted from the data-base. Loans to Assets was calculated as the ratio of these two variables. The number of years for which the averages are calculated is indicated in brackets.

Besides demand factors, it would have also been plausible for banks in the region to be conservative in their lending by in fact seeking to subdue their loan exposure. Given limited opportunities for securitisation *via* the trading of loans, banks may find that they bear a disproportionate share of credit risks. Consequently, this could lead to banks rationing credit, in the sense that some borrowers may have been excluded from the market. This would apply particularly to certain categories of potential customers, like micro-enterprises, start up businesses, and sectors such as agriculture.

Evidence of these considerations was provided by Birchwood and Nicholls (1999) in their study of lending and the real side of the economy. As can be gleaned from Table 4.1, the three countries which floated their currencies, Guyana, Jamaica and Trinidad and Tobago, recorded lower percentages of loans in their asset portfolios. Birchwood and Nicholls (1999) found that this was a reflection of short-term demand and supply factors which might have been related to economic cycles. They also found that, in the long run, the causal nature was demand following, so that bank activity was primarily a response to development of the real side of the economies. The implication of these considerations is that supply rigidities such as credit rationing may be short-term responses to economic cycles, but in the long run, the quantum and quality of bank lending may have been related to credit demand arising from the level of development of the real side of the economy.

#### **4.4 Some Correlations**

One of the most striking features that can be observed from the empirical evidence is that over the last three decades, the association between the deepening of bank activity and growth was negative for most countries in the region. The result suggests that higher GDP growth was not instantaneously associated with the intensification of bank



assets and loans relative to GDP (See Table 4.2). In fact, for the negative correlation to hold, the result would suggest that at higher levels of growth, growth of bank assets and loans would have lagged behind growth of the real sector. The reverse would also be true: that at lower levels of growth, growth of bank assets and loans would have outpaced growth in the economy.

**Table 4.2: Correlation Between Bank Activities and the Real Side: 1970-1999 or Closest**

Countries	GDP Growth and Assets to GDP	GDP Growth and Loans to GDP	Assets and Loans
The Bahamas	-0.60	-0.60	1.00
Barbados	-0.30	-0.01	0.67
Belize	-0.66	-0.70	0.95
Guyana	-0.65	-0.14	0.64
Jamaica	0.28	0.44	0.28
Trinidad and Tobago	-0.45	-0.67	0.60
Antigua & Barbuda	-0.55	-0.46	0.91
Dominica	-0.45	-0.64	0.92
Grenada	0.06	0.03	0.94
St. Kitts & Nevis	0.04	-0.24	0.78
St. Lucia	-0.67	-0.71	0.98
St. Vincent and the Grenadines	0.23	-0.24	0.38

**Source:** Data sources are the same as in Table 4.1.

Of course, such a result provides a guide with respect to association, but it does not indicate whether there is any significant association between the variables, or whether the results can be generalised across all the territories. To better do this, panel estimation utilizing generalized least squares with cross-sectional weights was employed. A crude functional form was tested for, namely:

$$Yg_{it} = f(LY_{it}, FDIY_{it})$$

Economic growth ( $Yg_{it}$ ) was hypothesized as being influenced by both the deepening of bank loans ( $LY_{it}$ ) and foreign direct investment ( $FDIY_{it}$ ) weighted by GDP. All variables are referenced with respect to country  $i$  at time  $t$ . The transmission assumed in the former was thought to be such that the depth of lending fuels the volume of consumption and investment in the economy, thereby leading to economic growth. In addition, foreign direct investment was assumed to directly augment capital stock and provide scarce foreign exchange resources that could allow for the import of capital goods.

Foreign direct investment turned out to be positive and significantly associated with economic growth as expected (See Table 4.3). However, the deepening of bank lending, though significant, was negatively associated with economic growth, a result consistent with the correlation results found earlier. Evidently, this result weakens the case of a long-term supply-leading relationship running from banking development to economic growth. The finding further supports that of Birchwood and Nicholls (1999), who rejected the long-term supply-leading relationship.

**Table 4.3: Panel Estimation Using Generalized Least Squares**

	LY	FDIY	$\bar{R}^2$	F-Statistic
YRG	-19.77***	12.85***	22.8	59.65***

**Notes:** \*\*\* denotes significance at 1 percent level.

#### 4.5 Credit Allocation

One way of examining the link between the banking sector and the real side of the economy is to see whether loans provided to various sectors by commercial banks are linked to the relative importance of these sectors to GDP. This is based on the premise that if the financial sector is to directly impact on economic growth, it should at least fund those sectors that are the most significant contributors to growth. However, it must be noted that this in itself does not allow for definite conclusions concerning causality running from the financial sector to growth, since the indirect contribution of the financial sector is ignored. For example, the financial sector can indirectly contribute to growth by financing consumption, thereby helping to raise overall demand in the economy. Nevertheless, it is important to examine the direct contribution of banks to growth from a policy perspective.

Lending in the Caribbean, as in many other developing countries, tends to be highly skewed in favour of a few sectors. Examination of the data suggests that, in each economy, the three sectors receiving the highest proportion of bank credit in 1990 and 1999 or the period closest, together accounted for between 42 and 83 percent, and 43

and 81 percent of bank assets, respectively. The dispersion of loans hardly improved by the end of the 1990s, compared to the beginning of the decade, when either the three sector concentration or variability measures are used (See Table 4.5). Use of the coefficient of variation measure suggests that loans were most highly concentrated in The Bahamas, Montserrat, and Trinidad and Tobago. This in itself reflects the fact that in these countries, bank lending tends to be highly skewed in favour of the 'consumer' or 'personal' sector (See Appendix B). At the same time, the distribution of loans was most evenly spread in Barbados and Jamaica.

Almost in unanimity across countries, the two most popular sectors receiving the highest proportion of funding were 'Consumers' and 'Distribution' (See Table 4.4). The third of the top three sectors receiving financing varied. In the ECCB area, five of the seven territories considered in the study recorded the government sector as one of the three most important ones receiving loans from commercial banks. A similar picture emerges in Jamaica. Belize is almost unique as agriculture loans featured prominently in its portfolio in periods prior to 1999. Other sectors found among the top three receiving financing in the various territories were 'Tourism', 'Construction', 'Manufacturing', and 'Finance, Insurance and Real Estate'.

The dominance of distributive trades in the loan portfolio of commercial banks in the region is consistent with the importance of this sector to GDP, as can be gleaned when the sector is mapped with the sector classified in the GDP statistics as 'Wholesale and Retail Trade'. Outside of Belize and Guyana, the sector fell within the top five contributors to GDP from a classification of 11-plus sectors. In Barbados and Jamaica, it was the major contributor to GDP, while in The Bahamas and Trinidad and Tobago, it was second only to 'Financial and Business Services' and 'Petroleum', respectively.

**Table 4.4: Major Sectors Receiving Loans in the Caribbean**

Country	Years	Top Three Sectors Receiving Loans	% of Loan Portfolio
The Bahamas	1990	Personal; Construction; Distribution	72.9
	1999	Personal; Construction; Distribution	81.1
Barbados	1990	Distribution; Tourism; Personal	46.2
	1999	Distribution; Tourism; Personal	60.3
Belize	1990	Distribution; Building and Construction; Agriculture	61.6
	1999	Distribution; Building and Construction; Personal	65.7
Guyana	1990	Government; Manufacturing; Manufactures	83.4
	1999	Manufacturing; Distributive; Households	43.1
Jamaica	1990	Construction and Land Development; Manufacturing; Communication	52.1
	1999	Government Services; Professional and other Services; Personal	56.4
Trinidad and Tobago	1990	Manufacturing; Finance, Insurance and Real Estate; Consumers	53.5
	1999	Manufacturing; Finance, Insurance and Real Estate; Consumers	65.1

Table 4.4: Major Sectors Receiving Loans in the Caribbean - Cont'd

Country	Years	Top Three Sectors Receiving Loans	% of Loan Portfolio
Antigua and Barbuda	1990	Distribution; Government; Personal	50.9
	1998	Distribution; Government; Personal	65.3
Dominica	1990	Distribution; Government; Personal	70.7
	1998	Distribution; Government; Personal	65.5
Grenada	1990	Distribution; Tourism; Personal	63.9
	1998	Distribution; Tourism; Personal	69.1
Montserrat	1990	NA	
	1998	Distribution; Tourism; Personal	82.2
St. Kitts and Nevis	1990	Government; Distribution; Personal	67.2
	1998	Government; Distribution; Personal	62.3
St. Lucia	1990	Distribution; Tourism; Personal	72.9
	1998	Distribution; Tourism; Personal	70.3
St. Vincent and the Grenadines	1990	Distribution; Government; Personal	55.6
	1998	Distribution; Government; Personal	74.1

Source: Percentages Calculated from data extracted from monthly statistics produced by the various Central Banks

**Table 4.5: Diversification of Lending Portfolios of Commercial Banks**

Country	Hirshman-Herfindahl Index		Coefficient of Variation	
	1990	1999	1990	1999
The Bahamas	0.320	0.502	1.95	2.56
Belize	0.167	0.166	1.36	1.35
Barbados	0.126	0.194	1.01	1.45
Guyana	0.156	0.165	0.93	0.99
Jamaica	0.131	0.157	0.84	1.02
Trinidad and Tobago	0.142	0.225	1.00	1.47
Antigua and Barbuda	0.150	0.175	1.05	1.20
Dominica	0.252	0.182	1.59	1.25
Grenada	0.210	0.237	1.40	1.52
Montserrat	n.a	0.352	n.a	1.98
St. Kitts and Nevis	0.211	0.191	1.40	1.30
St. Lucia	0.246	0.217	1.56	1.43
St. Vincent and the Grenadines	0.150	0.222	1.05	1.45

**Notes:** The more concentrated the loan portfolio of the bank industry is, the closer the Hirshan-Herfindhal index (HH) will be to 1, while the closer it moves to zero, the more diversified the loan portfolio will be. The index is biased, however, by the number of sectors quoted in the Statistical Reports of the Central Banks. The bias is taken away through a transformation of the HH to the coefficient of variation measure (CV) such that  $CV=(nH-1)^{1/2}$

Undoubtedly, then, banks are important catalysts in the development of commerce in these small states. Their popular choices of sectors for financing were 'Wholesaling and Retailing' as well as the 'Consumer Sector'. But the question arises as to their relevance in financing the development and expansion of the top contributors to GDP, and as to whether the loan portfolio of banks is skewed by the dominant economic activities.

The last question is perhaps the easier one to answer. While the productive structure of the regional economies was highly skewed so that the top three sectors accounted for about half of GDP, in most cases less than a quarter of the loan portfolio of banks went directly to these sectors (See Table 4.6). The evidence suggests that the loan profile of the banks is not strictly patterned after the sectoral composition of GDP.

Sectoral studies need to be undertaken concerning the relevance of bank financing to the development of the dominant contributors to GDP. Given the paucity of data, the study does not address this question. However, in the context of an underdeveloped private sector, it is typical for foreign financing to play a decisive role in the financing and development of some of the key export sectors and contributors to GDP, whether in the form of foreign direct financing or debt flows. Examples of such areas where foreign direct investment would play such a role are hotel infrastructure, air and sea links, telecommunications, petroleum production, mining activities, manufacturing and banking. It is not inconceivable, therefore, that bank financing may not have initiated growth in the major contributors to GDP. Instead, the major contributors to GDP could simply have taken their tone from sectors receiving foreign financing rather than directly from the availability of domestic lending. More knowledge of the complementarity or substitutability of foreign savings and domestic bank loans per sector is needed to shed light on this issue.



**Table 4.6: Major Economic Sectors and Bank Financing**

Country	Top Three Non-Government Contributors to GDP	Contribution of Sectors to GDP (%)	Finance Received to Total Bank Loans (%)
The Bahamas (1999)	Wholesale and Retail Trade, Hotel and Restaurant, Financial and Business Services	52.0	12.0
Barbados (2000)	Wholesale and Retail Trade, Hotel and Restaurant, Financial and Business Services	48.0	36.0
Belize (2000)	Agriculture, Manufacturing, Hotel and Restaurant	53.0	20.2
Guyana (1999)	Agriculture, Mining and Quarrying, Financial and Business Services	62.4	18.3
Jamaica (1999)	Manufacturing, Wholesale and Retail Trade, Financial and Business Services	51.6	19.2
Trinidad & Tobago (1999)	Petroleum, Wholesale and Retail, Financial and Business Services	54.3	20.8
Antigua & Barbuda (1998)	Construction, Transport and Communications, Financial and Business Services	49.6	19.0

**Table 4.6: Major Economic Sectors and Bank Financing-- Cont'd**

Country	Top Three Non-Government Contributors to GDP	Contribution of Sectors to GDP (%)	Finance Received to Total Bank Loans (%)
Dominica (1998)	Agriculture, Transport and Communication, Financial and Business Services	51.6	8.7
Grenada (1998)	Wholesale and Retail Trades	47.5	22.7
Montserrat (1998)	Construction, Transport and Communication, Financial and Business Services	55.7	13.7
St. Kitts/Nevis (1998)	Construction, Wholesale and Retail Trade, Financial and Business Services	48.3	25.9
St. Lucia (1998)	Wholesale and Retail Trade, Transport and Communication, Financial and Business Services	47.6	22.8
St. Vincent & the Grenadines (1998)	Construction, Wholesale and Retail Trade, Transport and Communication	50.6	20.0

**Source:** Data on the composition of GDP were extracted from statistics emanating from the Caribbean Development Bank. Data on lending were obtained from commercial bank statistics.

## 4.6 Improving the Allocative Role of Banks

Credit allocation by commercial banks in the member countries of CARICOM may require strategic market intervention in order to synchronise credit with developmental objectives.<sup>1</sup> For sustainability, it may be prudent for such intervention to take place in terms of devices to crowd-in private sector participation in the financial sector and to enhance its role in the allocation of credit. However, involvement of the private sector does not erase the reasons why government got involved in the allocation process in the first place, namely to accelerate economic development and attend to market failure. The issue, therefore, is how in a free market the financial system can be engineered to allocate credit in a manner that is socially desirable.

If the empirical findings emerging from Birchwood and Nicholls (1999) hold for the various member countries then, in the short-term, measures need to simultaneously address demand and supply factors while, in the long term, demand-driven factors should be addressed. Accordingly, market-friendly intervention would require elements that attend to the short-term decision making of banks and customers in the first instance, and their response in the long term.

Ideally, such insights should be derived from a qualitative investigation of bank lending in the domestic environment and an evaluation of customer demand.<sup>2</sup> Such a survey would

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1 Market failure in the credit allocation process could arise owing to several factors, including institutional factors, informational asymmetries, and macroeconomic factors.

2 A variant of this type of analysis is done on a quarterly basis by the Federal Reserve in the United States, through its "Senior Loan Officer Opinion Survey on Bank Lending Practices".

identify qualitative factors underlying market failure that need to be addressed. In the Caribbean, there is a marked absence of these types of studies on both the banking and customer side. The studies of Birchwood (2001), Farrell *et al* (1986) and Clarke *et al* (1995) attempted to fill this gap with respect to Trinidad and Tobago by looking at factors influencing supply of bank financing and the demand by the corporate sector.

Supply factors impacting on the short run include those imposed by commercial banks, as well as those arising from changes in the environment. Often, banks set limits on loans to sectors, impose ceilings on credit lines, screen applicants, and make use of loan covenants and collateral. Moreover, banks dictate standards, and they set terms and conditions for gaining loan access. For example, they may require that the business applicant outline a business plan that must satisfy certain minimal standards before the loan request is considered. In addition, banks attempt to judiciously manipulate price and collateral to take account of risks and their internal cost of funds. Thus, on a day-to-day basis, the projects that may be considered bankable may be limited by these supply factors, and effective demand is limited to those companies that possess the ability to meet these standards.

Reaction by banks in the short term could be further complicated by changes in the environment owing to movements in factors such as liquidity, financial regulations, and macro economic conditions. Volatility in the environment could induce uncertainty and therefore cause credit rationing on the part of banks. Moreover, conditions induced by macro-economic crises could further affect the day-to-day lending policies of the banks.

Intervention in the market to enhance the day-to-day supply of loans may be more readily exercised in a stable environment and focused on those factors more easily controlled by banks. For example, while screening costs are

related to the adequacy of the information infrastructure, as in other developing countries, there is a marked absence of private sector information vendors in the Caribbean. Banks facing lending decisions may at times be in the dark concerning the viability of sectors, instruments, and even the credit ratings of customers, and are therefore heavily reliant on the historic performance of their customers. In the absence of suitable information, credit rationing may occur, thus leading to failure of the bank to choose the projects that would optimise their portfolio. The result could be that new ideas, start-up businesses, micro enterprises and other sectors of strategic importance are eliminated by the screening exercise. It may be appropriate, therefore, to continuously upgrade the information infrastructure through the establishment of information vendors either at a national or a regional level. To kick-start such developments, it may be necessary for the government to crowd-in the private sector through the passage of legislation and perhaps work with the market to get such projects initiated.

Demand for loans may reflect short-term and structural factors. Short-term factors include price, the ability of customers to meet the standards imposed by banks, flexibility and accessibility of banking products, and macroeconomic uncertainty. In the long-term, structural factors can be expected to critically impact on credit demand. Credit demand may be affected, for example, by the level of development and sophistication of the real side of the economy. Accelerating economic development would therefore require efforts to spur innovations, entrepreneurial development, generation of business ideas, the seizing of opportunities and marketing.

The rate of expansion of businesses can also affect credit demand in the long-term. As businesses expand, the demand for working capital for inventory, for financing needs, for accounts receivable and for investments in plant and equipment, increases. The demand for trade financing may also

rise as businesses export. Thus, in a discussion on credit allocation, development and expansion of the real side of the economy matters in the long term.

Structural factors impacting on the cost of credit may be relevant, depending on the degree to which demand is sensitive to changes in loan pricing. Costs are influenced by monetary policy actions, cost of funds to the bank, and risk levels. In many of the territories, for example, non-remunerated reserve requirements account for a major proportion of liquid assets, and they therefore help in some way to account for the magnitude of interest rate spreads observed (See Birchwood 2001). Clearly, policy makers can directly help bring costs down either by reducing these requirements or by offering interest rate subsidies on loans to selected sectors. The success of these measures, however, rests on the sensitivity of demand by the private sector to changes in credit costs, and on whether these measures will be translated into improvements in the competitiveness of enterprises. Various sector studies are needed before conclusive statements can be drawn on whether the benefits outweigh the costs of cuts in reserve requirements or the provisioning of interest rate subsidies.

#### **4.7 Some Suggestions**

In order to gain economies of scale, banks in the region can cooperate to develop a regional pool of information vendors. It is suggested that measures that may be useful to improve the information infrastructure include the establishment of a credit rating agency, an automated credit bureau, and the development of domestic credit databases for credit scoring. These three are not mutually exclusive, in the sense that agencies must specialise in one or another. Rather, a hybrid of the various functions could be developed by a single entity and sold to banks on a timely basis.

The credit rating agency could be useful for the rating of instruments, including bonds. It could allow banks to evaluate their portfolios and adopt relative pricing structures. In addition, the credit bureau could facilitate the rating of customers, improving their chances of obtaining loans and reducing credit rationing in cases where customers may show high ratings.

Industry analysis involves research geared towards the determination of an appropriate industry classification, industry characteristics, dynamics, and the quantification of risk. Through such analysis, researchers can derive results such as income elasticities and covariance between sectors, analyse financial ratios, and determine industry risk rating.

One of the major advantages of this type of analysis is that it can provide important details needed by banks for sound portfolio management, and therefore assist them with information needed for their long-term viability. Through the use of this analysis, banks can, for example, become more clinical at avoiding concentration of loans to sectors that are highly sensitive to economic fluctuations and also minimise portfolio covariances. To the extent that their portfolio management policies are informed by sound industry studies, banks can derive greater stability, especially during recessionary periods. Further, access by bankers to industry studies could allow them to develop an understanding of the traits and dynamics of industries and, as a consequence, to reduce the extent of unnecessary credit rationing. Attributes such as the typical risks facing the various industries, product life cycle of the industry, and capacity utilization can be analysed and used to form a risk matrix across sectors.

Industry analysis further provides banks with a tangible basis for targeting sectors. As part of their strategic planning, they can, for example, specialise in lending to some segments

of the market, thus developing their expertise in that area. From a social perspective, the benefits can be immense, as bank lending can be sensitized to industry movements and to opportunities within sectors.

Another advantage to be gained from the conduct of industry analysis concerns its potential to provide benchmarks where possible, so that banks can develop devices for monitoring individual loan performance against industry standards. Furthermore, it can allow banks to respond more quickly to investment opportunities since lending decisions are greatly simplified and standardized through the use of industry risk ratings. In addition to these benefits, the research could also prove invaluable to overseas investors since it provides them with a ready source of information from which they can quickly and easily make their decisions concerning investment opportunities.

These devices can be buttressed by the development of a credit database. This involves the collection of information on borrower profile, current and projected financial data, marketing data, initial credit rating coupled with changes in the credit rating during the repayment period, and the status of the loan.<sup>33</sup>

A well-delivered credit data base allows for (1) risk monitoring and portfolio composition management, (2) more accurate risk based pricing, and (3) better estimation of parameters of credit models. It must be noted that current credit models are in fact imported from the industrialized world. As noted by McAllister and Mingo (1994), such models

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33 McAllister and Mingo (1994) highlight several opportunities to be derived by the establishment of such a database.



are developed on the basis of public bond market data rather than on actual bank experience. Using commercial bank data to develop local models permits commercial banks to evaluate credit risks in terms of their own experience. Following the collection of credit particulars, quantitative techniques such as factor analysis can be used to determine the variables that are important to building useful credit models.

The creation of these agencies involves logistic problems that must be overcome. These difficulties include the capacity of banks to warehouse and share data, and whether such initiatives should come from within the banking sector or outside of the sector. The capacity of banks to warehouse and share information raises compatibility issues between technological systems and applies especially to batch systems of data accumulation. In addition, some banks may see themselves as having a competitive advantage over their competitors in information screening, and may therefore prefer not to cooperate in pooling information. Moreover, non-participating banks can simply observe lending and pricing policies of participating banks and engage in free-riding. This therefore raises the issue of whether information enhancement is a public good that requires total cooperation by the financial sector, or whether it is feasible for a subset of the industry to do it alone. The implementation problem can therefore be challenging, and can frustrate the creation of these agencies. In the end, the collective will of the financial sector to implement these considerations would quite rightfully be the overriding factor governing implementation.

## **4.8 Conclusion**

There are no simple answers as to whether commercial banking activity can in itself trigger growth, or whether bank activity simply reflects that of the real side. While in the past much energy has been spent on the harnessing of bank activities to kick-start economic activity, either through interest

rate controls or *via* the free market, the smoothness of such a transmission is open to question. The smoothness can be broken by institutional factors and market imperfections such as information asymmetries. As a result, while there may be pitfalls associated with the use of credit controls, a free market may not necessarily improve the allocation of credit.

In the CARICOM area, the depth of banking activities – as measured by assets to GDP and loans to GDP – has generally intensified since the mid-1980s and even before in some territories. But among the member countries, the OECS territories have reflected assets-to-GDP ratios closest to those of the industrialised countries. Even then, the depth of lending activities across the spectrum of Caribbean territories fell strikingly below that of the industrialised countries. This may perhaps be symptomatic of weak loan demand due to the lack of depth in development of the real side of the economy. A supply side explanation such as credit rationing cannot be automatically ruled out. However, the evidence obtained supports the contention that the depth of credit follows from long-term demand factors, so that emphasis should be placed on developing the real-side of the economy.

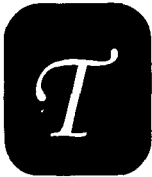
Lending was skewed in favour of a few sectors, the most popular among the territories being 'Distribution' and 'Personal' sectors. At the same time, credit allocation did not reflect the magnitude of the importance of sectors to GDP. Indeed, key sectors may be externally propelled by foreign savings rather than by internal financing.

For the banking sector to be further penetrative, emphasis will have to be placed on risk management. There will be need as well to further develop the information infrastructure and experiment with innovative contractual devices. However, it must be remarked that the banking sector cannot by itself make a difference. Other institutional arrangements such as micro-financiers, and development banks all have a part to play.

## *Chapter 5*

# SUMMARY AND CONCLUDING THOUGHTS ON BANKING IN THE CARIBBEAN

### 5.1 Introduction



The banking sector is functioning in a dynamic world in which critical and unprecedented decisions need to be made by both banks and government policy-makers. A wave of adjustments is currently sweeping the sector in response to technological and economic developments. It is envisaged that in the advanced industrialised countries, after the adjustment period is over, there will be clear winners and losers. Against this background, the chapter attempts to provide some concluding thoughts on banking in the Caribbean and its prospects.

Some of the important developments taking place internationally are presented in the following section. Key findings concerning the banking sector in the Caribbean are then outlined in Section 3. Section 4 highlights important implications for policy makers. This issue is picked up further in Section 5 with broader suggestions on legislative reforms. Some of the strategic choices available to banks are then discussed in Section 6. In Section 7, recommendations are suggested concerning the direction of expansion of banking. These are followed by concluding comments in Section 8.

## 5.2 International Developments

In the past, the business of banking was regarded simply as lending and deposit taking, with banks comfortably living off the interest-rate spreads accruing from such activities. Markets were geographically distinct, so that the competitors of banks were often perceived as emanating only from entities that were in close geographical proximity. In addition, regulatory barriers to entry effectively kept prospective entrants outside the industry.

The traditional mode of banking has been fundamentally altered by the forces of globalisation, liberalisation, and technological innovation. These forces have increased the interconnectedness of markets: Technology has reduced distance, increased speed of transactions, reduced costs, and improved the capacity of banks to undertake a multiplicity of different types of transactions. At the same time, there has been freer market access through bilateral and multilateral agreements. Moreover, deregulation has blurred the boundaries between banks and non-banks. In addition, governments in an increasing number of countries have retreated from direct provisioning of financial services. Thus, the banking sector in many countries is being increasingly exposed to global market forces.

The changes in the environment have forced banks to reconsider their organisational structure and strategies. In the 1980s, for example, banks, particularly those in the advanced industrialised countries, focused on operations and product development. This resulted in changes in production processes and the proliferation of products. It was later realised that this did not provide them with a competitive advantage as all banks simply copied from each other. At the onset of the 1990s, however, attention was shifted to the development of a customer-focus approach. This led to data mining, outsourcing, bundling and repackaging of

financial products, and the pursuit of segmentation strategies. The traditional distribution channel of bank branches is now complemented by alternative distributional channels. The latter have had varying degrees of success, but they have not replaced bank branches in many countries.

Structural changes are most noticeable in the advanced industrialised countries. Liberalisation has been accompanied by a reduction of players in these markets owing to a high spate of mergers and acquisitions. This consolidation process has been largely motivated by the underlying belief that there will only be a few global players in the banking arena. Banks have also been motivated to enter into mergers by the underlying belief that this will increase their product range, strengthen their brand name, and improve efficiency. However, mergers have proven to be expensive and highly risky. The costs of mergers quite often run into billions of dollars and the outcome is very uncertain due to the difficulties of merging different cultures and technological systems while retaining customer focus. There is also the dilemma concerning which services belong together. For example, it is yet to be determined whether insurance and retail banking complement each other. Evidently, reengineering of financial institutions and products brings new challenges with it.

Banks have also sought cooperation among themselves in areas such as plastic card technology and clearing systems. Cooperation has resulted in dilemmas concerning how to organize information sharing and yet maintain proprietary brands. It is also unclear whether there are real improvements in post-cooperation performance as opposed to a do-it-alone strategy.

### **5.3 Local Dynamics**

The banking industry in the Caribbean Community exhibited strong growth in the 1990s, benefiting from the

favourable economic conditions which existed in most of the regional economies. **The high growth of the commercial banks appeared to be more closely associated with increasing profitability, rather than with declining operating unit costs.** It seems to be the case, therefore, that banks have been using their increased asset size to improve the value added of their services, as opposed to improving their operating cost efficiency.

Despite the impressive growth the banking industry in the Caribbean is dwarfed by international banks. Indeed, the sum of all the assets of the commercial banks in the region in 2002 was only 2.3 percent of the assets of the largest bank in the world in that year, Mizuho Financial Group of Japan. Thus, even if all the banks in the region were to be merged, this single entity would still be at a scale disadvantage by international standards.

Smallness has not constrained the banks in the region from being world ranked, however, with respect to soundness. Neither has domestic ownership been a hindrance to the skills required to improve the soundness of banks. This is evidenced by the fact that some of these institutions can lay claim to being ranked among the soundest in the world.<sup>1</sup> Four of these entities were inside the top 1000 banks in the world in 2001/2, when ranked according to shareholders' equity available to cover actual or potential losses as defined by the Basle's capital requirements.<sup>2</sup> Moreover, 12 banks in the CARICOM area were classified among the top 100 banks in Central America and the Caribbean. Such an achievement suggests that the

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1 The classification adopts the Basle definition of Tier One capital.

2 See Table 1.

efficacy of banks in small states should not be underestimated, a point which is further strengthened when considering that all the banks selected from the classification are in fact those that are indigenous to the region.

**Table 5.1: International Ranking of Regional Banks by Soundness (March 2001-March 2003)**

Name of Bank	Country Incorporated in	Place in the top 1000 Banks in the World (2001 or closest)	Place in the top 100 Banks in Central America and the Caribbean (2002 or Closest)
Republic Bank	Trinidad & Tobago	616	5
RBTT Financial Holdings	Trinidad & Tobago	617	7
First Citizens Bank	Trinidad and Tobago	908	11
National Commercial Bank of Jamaica	Jamaica	936	10

**Source:** The ranking of CARICOM banks among the top 1000 banks in the world is extracted from the July 2002 edition of "The Banker", while their ranking in the top 100 banks in the Central America and Caribbean area is extracted from the March 2003 edition of the same magazine.

There was greater stability in the number of banks in the CARICOM area between 1990 and 2003, than in Europe and the United States. Even though the Caribbean markets are fairly open, there was not a flood of new entrants in the

period 1990-2002 seeking to establish a commercial presence. At the same time, merger activity within national borders did not take place with the same intensity as in the industrialised countries. Perhaps the low level of merger activity is attributable to foreign ownership of a high proportion of banks. Also, the smallness of countries in CARICOM may constrain the profitability of banks if they attempt to operate beyond some critical level.

**Larger economies in the region appeared to possess a greater capacity to absorb new entrants.** These economies exhibited lower penetration ratios than their smaller counterparts. Also, the barriers to entry in the larger economies, measured as population-to-bank branches, generally turned out to be lower. The evidence therefore suggests that banks in these markets are more likely to be disciplined by the threat of new entrants than those located in the smaller economies in the region.

**The scale of banking in the CARICOM area varies sharply. In the 1990s, for example, banks in ten of the fourteen economies accounted for only a quarter of total assets in the region.** The skewness in relative size was strongly associated with the differences in size of the economies, as measured by GDP. Given the disparity in relative sizes, one aspect of the investigation focused on the implications of size for the performance of banks. The effectiveness of strategies in relation to bank size was also examined.

The performance of banks appeared to be independent of their relative scale of operations. **The sharp disparity in the region with respect to size, therefore, did not appear to consistently translate into differences in profitability levels.** Underlying macro-economic factors and other factors specific to individual banks may be of greater importance in this respect.



The scale of banking appeared to have implications, however, for the strategies which can decisively improve individual performances. **The evidence suggested that size has implications for the management of banks.** Thus, the significance of strategies to performance attributes such as market share, loans per unit of assets, trend in operating unit cost, capitalisation, and the scale of branch networks appeared to vary according to the scale of banking operations considered.

Intraregional trade in financial services can potentially deepen integration of the financial sector in the Caribbean. Protocol II of the CARICOM treaty is supposed to facilitate such trade. However, **the severe disparity in the relative size of the regional economies suggests that intraregional trade in financial services is likely to continue to be polarised in favour of a few countries.** The greater asset size of banks in these countries is likely to give them a comparative advantage since they can buy smaller entities and command a greater share in investment banking. Cross-border acquisitions have already taken place, with banks emanating from Trinidad and Tobago, one of the largest economies in the region, being leaders in this respect.<sup>3</sup> Of course, the challenge presented by the domination of the intraregional market by a few firms emanating from a few markets is that there is the risk that financial failure in a dominant territory can undermine operations in the other markets, thus leading to a region-wide financial catastrophe. Thus, there may be the need to provide safeguards against the possible contagion effect that could occur under such circumstances.

There was generally a trend towards the deepening of bank assets and loans (Assets/GDP and Loans/GDP) across

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3 Banks in Trinidad and Tobago have also engaged in cross-border investment banking. However, aggregated data on various aspects of cross-border trade are not available.

the region. Compared to other CARICOM territories, the ECCB area came closer to matching the advanced industrialized countries considered in the study in depth of assets. Even then, the proportion of lending to bank assets or GDP in the CARICOM territories tended to lag behind that of the industrialized countries. **The evidence suggests that the relatively lower proportion of lending by banks in CARICOM territories may be reflective of lower demand capacities by the real side of the regional economies compared to the advanced industrial countries.** This was supported by evidence of a demand following relationship between lending and economic growth. In other words, weakened long-term demand may be a contributing factor to the fall-off in loans in the CARICOM territories. In addition, lending was highly skewed, so that three out of a dozen or so sectors accounted for over 45 percent of loans in the loan portfolio of commercial banks. Among these sectors, 'Distribution' and 'Consumers' tended to be the most popular.

**Fragmentation of the industry is more likely to be on the demand side, than on the supply side.** On the supply side, cross border ownership structures are typical, as evidenced by the fact that a large percentage of domestic banks are owned by cross-border interests, some of which are regional in nature. However, demand fragmentation owing to a fair degree of market segmentation is more noticeable, particularly at the lower end of the market. As a result, large interest rate differentials between territories can be sustained by common suppliers of banking services, due to the minimal role that arbitrage plays across these economies.

**The evidence also suggested that for small and large banks operating in the region, risk premium significantly impacted on the size of their interest rate spreads.** This result was expected, given the weak existence of market-based methods for mitigating credit risk in the region. In fact,

Birchwood (2001) found in his survey that, after allowing for profitability of their relationships with customers, the risks pertaining to loan transactions along with reserve requirements were among the critical factors determining interest rate spreads by banks in Trinidad and Tobago.

#### **5.4 The Challenge for Regulators**

One of the concerns of policy makers is whether mergers within national boundaries are welfare-enhancing or detrimental to welfare. Financial institutions can abuse their market power and exploit the consumer in the post-merger period, thereby leaving them worse off than before. In contrast, these institutions can use their increased mass to gain cost efficiency. **The evidence obtained in the study did not support the notion that banks with a larger market share would exploit the market with higher interest rate spreads. On the contrary, large banks appeared to use their size to improve their operating efficiency, perhaps through their more extensive technology outlay.**

It is not inconceivable that banks may be constrained in the extent to which they can use their market power generated by increased market share, to widen spreads. Indeed, banks need to continuously be wary of customer defection to competing banks and non-banks at home and abroad. For example, banks can find themselves under pressure to narrow their spreads in situations where customers may be substituting higher-yielding financial instruments in place of bank deposits. In addition, there may be global competitors posing a serious challenge to the national markets in which CARICOM banks must compete. Technology has shortened distance so that geographical demarcations has become less of a barrier to competition. Accordingly, the extent to which banks can use their increased market share to widen spreads would be impacted on by the width of options available to consumers.

It must be conceded, however, that the shortness of the data set against which the evidence is drawn makes it difficult to generate conclusive results on the nexus between interest rate spreads and market share. Therefore, the evidence at this stage must be taken as being very preliminary. Moreover, the results do not exclude abuse by banks of market share in other forms, such as the imposition of high fee incomes. More detailed studies on these matters may be necessary, before conclusive statements can be made on these matters.

## **5.5 Legislative Reform**

Legislative reform in the region is urgently needed to grapple with the emergence of technological developments, wide-spread economic liberalisation, and the demands of innovative financial structures. There is need for the articulation of a clear-cut competition policy, improvements in the efficiency of regulations, consolidation of supervisory networks, and greater fairness in the legislative framework to both consumers and firms.

### ***5.5a Competition Policy***

Generally, the aim of competition policy is to prevent anticompetitive behaviour and to establish procedures for dispute settlement. An aspect of the prevention of anticompetitive behaviour involves the development of policies regarding the treatment of mergers. In evaluating whether a merger would lead to anticompetitive behaviour, consideration should be given to issues such as the impact on the width of consumer choices before and after the merger, the substitutability and complementarity of products, the relevant markets both in terms of products and geography, market share and concentration, trends in technology, market power, and modes of supply with respect to foreign competition. Other areas of legislation to deal with

anticompetitive behaviour should include regulations and guidelines to treat with different modes of market entry, subsidies, and the articulation of anti-dumping policies.

Alternative dispute settlement procedures are also important in raising market confidence as courts tend to be expensive and time-consuming. In order to minimise transactions costs involved in the settlement of claims, it may be prudent for policy makers in the region to explore alternatives to courts, such as the creation of a financial ombudsman, in order to allow for prompt settlement of claims and therefore to increase confidence in the market.

The urgency of competition policy should not be underestimated and in fact should be seen as a prerequisite to making commitments to liberalising the international financial system. With the opening of markets under the framework of the GATS, the FTAA, and the Caribbean Single Market Economy, contingency plans should be made for various modes of market entry since these modes would have differing implications for the consumer, market structure, taxation, financing of economic activity, and the maintenance of financial stability. Most of the OECD countries have already put in place some form of competition policy, which serves to protect consumers and firms from unfair trade practices that have occurred or are deemed likely to occur.

Development of a competition policy, especially in the case of micro-states, should involve two aspects: the passing of national legislation and international cooperation. At the national level, the execution of such a policy is better done through the establishment of an independent competition bureau that can effectively make decisions concerning whether market developments are inimical to the interest of consumers and investors. To engender confidence in the market, the decisions of the bureau should be transparent, and policy guidelines should be developed and revised by such a body.

Two other dimensions of improving the regulatory infrastructure are the strengthening and widening of cooperation with other jurisdictions and harmonisation of national legislation with international agreements. Cooperation entails information sharing, and coordination of taxation and policy matters. Cooperation may be necessary, for example, in cases where local banks transcend national boundaries or foreign entities have a presence in the domestic market. Moreover, the increased transportability of financial products occasioned by the rise in cross-border trade demands extra-jurisdictional supervision. Some work has been taking place in the region in this respect, as can be seen in the creation of Protocol IX on "Competition Policy, Consumer Protection, Dumping and Subsidies" by the CARICOM Single Market Economy. There is need, however, for further multilateral and bilateral agreements, as well as the harmonisation of national competition policies with these agreements. The region is continually seeking to harmonise its policies with international bodies, especially in terms of meeting standards. Indeed, the region has gone a long way towards implementing international standards such as the Basle Accord.

### *5.5b Efficiency of Legislation and Supervision*

Another issue that is pertinent to legislative reform is its efficiency. There may be need to consolidate various strands of legislation and remove inconsistencies. Typically, financial regulations in the region are compartmentalised into market segments such as insurance, banking, co-operatives and so on. In addition, there are company and consumer Acts that impact on the operations of these firms. Difficulties can arise owing to inconsistencies between various Acts, especially as financial institutions enter non-traditional areas or operate as part of a group containing financial firms in various market segments. Such inconsistencies open the way for regulatory arbitrage. There is need, therefore, for the rationalisation and con-

solidation of legislation in order to improve the efficiency of legislation.

A related matter is whether supervision should remain compartmentalised, or whether it should be consolidated so that all financial institutions are supervised by a mega regulator. At present, the supervisory structures in the region are largely compartmentalised and fragmented and, as a result, there are differences in the degree of supervision imposed on different types of financial institutions. Accordingly, banks are far more regulated than non-bank financial institutions and therefore bear the brunt of regulatory costs as they are singled out to conform to higher regulatory standards, besides the non-remunerated reserves they are obligated to hold for monetary policy purposes. A drawback of compartmentalised supervisory structures is that they can result in inconsistencies between regulatory requirements, with the consequence of creating the climate for regulatory arbitrage. Moreover, compared to what obtains with respect to banks, lower supervisory levels of non-bank financial institutions create a regulatory bias towards lower operating costs of these institutions. There may be need, therefore, for consolidation of supervisory systems, or at the very least, greater coordination.

There may also be need to widen the scope of the supervisory network in light of the trend internationally towards conglomeration. An issue that arises here is whether it is appropriate to supervise the parent company of a financial institution and what mechanisms might be feasible for doing so, particularly where the parent company is a non-bank. With the formation of groups, parent companies of banks can easily shift funds around member companies. As a result, changes in the financial configuration of the industry may call for a widening and coordination of the supervisory apparatus in order to effectively address prudential concerns in a borderless financial world. Moreover, modernisation of supervisory systems to deal with the emerging realities of the

market place should be seen as a prerequisite to increased integration of the domestic financial sector within the world economy.

There is also the need for the supervisory authorities to develop the capacity to adopt a more forward looking mode of supervision in order to come to terms with the risks associated with the rapid pace of innovations in the financial sector. This would entail the use of official oversight, market discipline, and internal governance. Official oversight involves the examination of bank-internal risk, including management, standards, credit, liquidity, interest rates and foreign exchange risks.

### *5.5c Information Disclosure*

Reliance should not be solely on the regulatory infrastructure, particularly as the market can be used as a potent means of encouraging market discipline. The costs of regulation can be shared with the public by widening and enforcing public disclosure requirements in respect of banks. In New Zealand, for example, the same information that the public has is used by the authorities to exercise their supervisory functions. As a consequence, the authorities could divorce themselves from bail-out responsibilities as the public would now possess timely information that may be necessary for the application of negative or positive sanctions in the selection of banks to undertake business with. In addition, the supervisory authorities could examine corporate governance by scrutinising the ability of firms to manage risk *via* their internal procedures. The challenges of instituting these prudential measures would indeed require reconfiguration of the supervisory apparatus, especially in terms of its structure, procedures, and its human resource requirements.

Information disclosure to customers in order to protect them is another area which needs to be addressed. If customers



with deposits beyond a specific sum are expected to stand liability, then perhaps these customers should be given more timely information on the financial health of the enterprise so that they could decide what is in their own best interest. The reporting requirements of financial enterprises should therefore be re-examined, in order to see how regulatory costs can be shared with consumers.

### ***5.5d Consumer and Investor Protection***

Consumer and investor protection arises because of the problems of fraud, misuse of funds, inadequate provision of information to clients and unauthorised sharing of confidential information. There is also the issue concerning the settlement of disputes. Courts are expensive and are plagued with delays. In cases where agents take unfair advantage of their clients, alternatives to courts need to be explored. The creation of a financial ombudsman may be useful in this regard, as it would allow small claims to be settled promptly in a less expensive manner, thereby increasing the confidence of economic agents.

There is need for some focus on the building-in of structural controls. This type of control is used to prevent excessive risk taking and to prevent conflicts of interest. The formation of a competition Bureau could be a useful step in preventing anti-competitive behaviour. The decisions of the Bureau should be transparent, with policy guidelines continually put forward and reviewed.

## **5.6 Strategic Initiatives**

An improved information infrastructure can enhance the ability of banks to quantify lending risks, thereby assisting to create the conditions for banks to adopt risk-based pricing and develop an optimal risk profile for their loan portfolio. Indeed, while it is desirable for the society that banks narrow their

interest rate spreads and allocate credit to 'desirable sectors' and market ends, for banks credit risk is the critical factor that impinges on their ability to meet these social demands. For this reason, there is need for the development of the information infrastructure to allow banks to scientifically manage their risks, since there is the risk that their stability may be compromised as they strive to reach social objectives.

A weakness in the information infrastructure in the Caribbean, as in many other developing countries, is the minimal role played by private sector vendors in the provisioning of information. This is in contrast to the developed markets where a pool of vendors provide information that is necessary for the quantification of risks. As a result of the scarcity of such vendors in the Caribbean, risk models are less rigorous than in the industrialised markets. In the absence of initiatives coming from the private sector, there may be need for policy makers to find mechanisms to foster the development of vendors of information.

Some developments in respect of which it may be useful for vendors to emerge are the creation of an automated credit bureau, credit database agency, an agency that specialises in industry analysis, and a credit-rating agency. The creation of an automated credit bureau allows for the application of risk ratings on a customer basis and it could therefore play an important role in minimising the problem of adverse selection banks face in loan provisioning. Moreover, borrowers with bad credit ratings would be motivated to raise their ratings in order to improve their access to credit.

The creation and maintenance of a database on borrower profiles would also play a useful role for the quantification of risks, provided that banks are prepared to cooperate with each other in its generation. Such data allow bank credit-scoring to be based on the actual experience of banks as it involves the pooling of information on borrower characteristics and pay-

back success while excluding the identity of the borrower. With the availability of such a data base, vendors can, for example, produce studies on the demographic profiles of loan defaulters forecasting the probability of defaults based on local commercial bank experience.

The quantification of risks can be further enhanced by vendors specialising in industry analysis. This type of analysis assists banks to diversify their portfolio in order to reduce risks. An agency that specializes in industry analysis could serve to produce benchmarks, study and forecast movements in industries locally and internationally, and allow banks to gauge their optimal cross-industry portfolio. These vendors could operate regionally to achieve economies of scale since the markets of individual countries are narrow. In addition, the creation of a credit risk rating agency could fulfil the much needed role of evaluating securities and assigning risk weightings accordingly. Indeed, the existence of these vendors should equip banks and other financial institutions with information to scientifically diversify their portfolios.

The success of information vendors rests on the co-operation of firms, especially with respect to information disclosures. Some work would need to be done on how to kick-start the development of information vendors. For one thing, laws such as those pertaining to companies may need to be amended in order to mandate information disclosures by companies to information vendors. But there are also questions concerning who should be responsible for kick-starting the information agencies, and the span of their operations. Moreover, the successful initiation of information agencies depends largely on the demand for information by the entities they were designed to serve.

## **5.7 Furthering the Ambitions of Banks**

The forms in which overseas competitors penetrate local markets are likely to have a strong influence on the formulation of strategies by banks. It may be the case that foreign banks and non-bank financial institutions will seek to establish a local presence either by purchasing a troubled bank or by engaging in suitcase trade. On the latter point, this would involve trading on the market without establishing branches. In addition, foreign entities are likely to target the most profitable ends of the market rather than aim for all segments of the market.

In order to further their ambitions in the industry, it is important for incumbent banks to develop a clear mission statement and a strategic plan that resounds throughout the organisation. In formulating such a plan, there can be little disagreement that it must be centred on meeting the needs of the consumer. The intensity of competition in the financial sector in the advanced industrialised countries in the last two decades is persuasive enough about the necessity of keeping the customer focus in order to outdo the competition. In general, consumers can be characterised as wanting the best service possible. In today's world, this involves simplicity, speed, convenience, obtaining the highest returns available and, very importantly, obtaining the products that are suitable to their needs. Banks continuously need to study their customers with the aim of anticipating their needs and forging long-term relationships with them.

As competition continues to intensify, structural changes seem inevitable. For example, pressures are already mounting for banks to seek methods to widen their product range or to further refine their expertise in existing product lines. Indeed, local banks need to continually search for strategies to remain in the game, as competition is likely to intensify in the domestic market in the future. Already in some of the territories in the region, mutual funds operated by non-banks are creeping

up on bank deposits in importance. Also, small financial service providers are targeting the richest ends of the domestic market as a source of funds for investments in the advanced industrialised countries. Insurance companies are also offering substitute products in place of the traditional deposit-taking and lending done by banks.

It is unclear whether the cross-selling of products, similar to what obtains with respect to universal banking, is easily exportable outside of Europe where it has been applied with some degree of success. There is the issue concerning which products belong together. For example, banks would have to decide whether insurance complements retail banking. It is uncertain how customers in other countries would react to purchasing all their financial products from one institution. However, there have been some successful cases of close alliances between insurance companies and banks, particularly in Europe. Nevertheless, banks providing a wide spectrum of products can find themselves outdone by specialists capable of offering better deals to customers.

With the slower growth of loans relative to assets in the region, some banks have widened the range of their asset portfolio to include investments in money and capital market funds in the United States and Europe. However, there may be competitive pressures that lead these banks to lean towards a sales culture where branches are used as the bases for the generation of sales. To make these strategies effective, sales would need to be followed up on a frequent basis. In addition, there may be need for the revision of the mode of compensation if wages are to be used as an enticement to accelerate the sales culture.

Interestingly, there has not been a rush of mergers within national boundaries in the Caribbean. However, given the smallness of the territories in the Caribbean Community, strategic alliances and outsourcing, while maintaining brand

names, appear to be viable options. Indigenous banks are continually searching for alliances in areas such as electronic cards, mutual funds, and other investment products. Alliances have also been forged with insurance companies and credit unions. Given the small size of banks in the region, cooperation may be a feasible option for mitigating the high costs of technological acquisition. In spite of this, it is noted that banks in some territories do not share ATM services. Yet, by sharing such services, these entities could penetrate rural areas at reduced costs, offer greater convenience, and perhaps stave off foreign competitors. Cooperation, for example, in loan syndication, can also be used to reduce the risk exposure of individual entities.

Outsourcing of non-core activities appears to be a feasible way of diversifying operations. A weakness of this type of arrangement, however, is that non-banks can duplicate them if they can strike the same agreements with the suppliers. Moreover, unless the products are underwritten in-house, new products may be easily replicated by non-bank competitors. In order to beat the competition, banks would need to outdo their rivals in terms of performance ratings on the products they market.

## **5.8 Final Comments**

While the banking industry has expanded rapidly in the Caribbean Community, fundamental changes are taking place globally in the provisioning of financial services. The developments in banking and the financial industry as a whole will force banks and policy-makers to make difficult and unprecedented decisions in the future. The decisions made could be critical to the success of banks, the minimisation of regulatory costs and the development of the real-side of the economy. Banks will need to decide, for example, on their optimal size, product mix and strategic interface with the market.

Regarding their optimal size, there was no evidence that scale significantly impacted on the performance attributes of banks. Skill rather than scale seems to have a more decisive impact on bank earnings. However, scale was strongly related to economy size and it impacted significantly on the choice of strategies adopted by banks.

The disparity in the scale of banking in the region has implications for the pattern of financial integration of the member countries. Indeed, there is evidence that the market has become supply-integrated, with the banks from the largest economy, Trinidad and Tobago, leading the process through enhancement of their scale and scope of operations via cross-border mergers and acquisitions. Nevertheless, the regional market still remains fragmented on the demand side as market segmentation exists in many forms.

On the prudential side, there is need for regulatory and supervisory reforms to grapple with the pace of financial innovations and to keep pace with the international financial standards as laid down by international bodies. Furthermore, unprecedented decisions would need to be made at some stage concerning the overall regulatory and financial architecture desired. All of these imperatives increase the burden on the existing human resources.

The debate concerning the nexus between financial development and growth can be expected to be as relevant in the future as in the past, especially as various forms of the financial structure emerge. Confronted with the challenge, policy makers will need to decide whether these various developments are in the interest of the economy. There is room, for example, for improvement of the credit allocation of banks by addressing both short-term and long-term considerations. The evidence suggests that in the short-term, demand and supply conditions should be addressed. Accordingly, it is suggested in this study that improvements

be made in the underlying information infrastructure. In the long-term, the demand for financial services flows from the real side of the economy, so that the expansion of demand capacity will need to be addressed.

The link between financial development and growth will be impacted on by the future developments with respect to the financial structure and its interaction with the real side of the economy. In spite of the openness of the regional economies, it does not seem to be the case that in the short to medium term domestic markets will be flooded by the commercial presence of banks emanating especially from the advanced industrialised countries. One reason for this is that the consolidation process taking place in these countries may have slowed down the global tendencies of these banks in the interim. This, to some extent, provides domestic banks with breathing space to find niches to penetrate extra-regional markets. However, at the end of the consolidation process, multinational banks may be more aggressive in attempting to establish themselves in the larger global markets before they turn to the smaller ones.

The foregoing suggests that banks and regulators can expect to be functioning in an environment fraught with increasing complexities. Global and regional developments will call for vision and anticipation of future developments. In the immediate future banks will have a period to work closely with policy makers in framing the future. However, in the long-term, the sector will need to be agile, innovative, and global in its outlook, in order to beat the competition and finish as winners.



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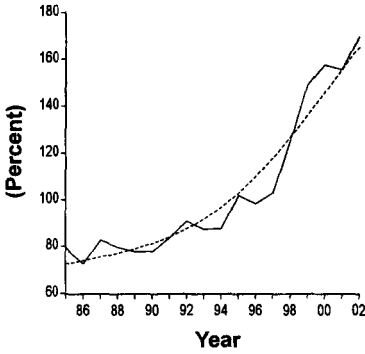




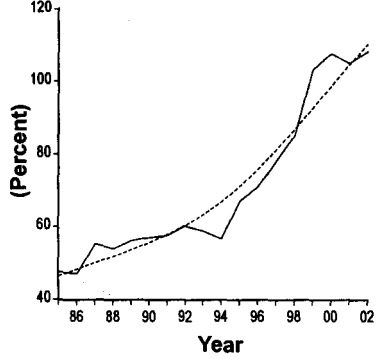
# *Appendix A*

**APPENDIX A: Deepening of Bank Activities**  
 (The trend is indicated by the broken lines)

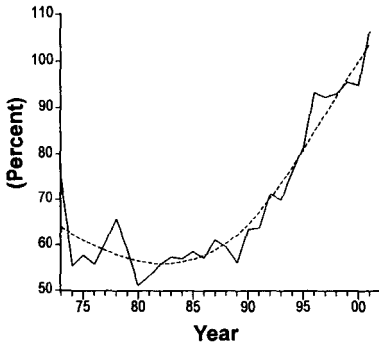
**Antigua/Barbuda: Assets/GDP**



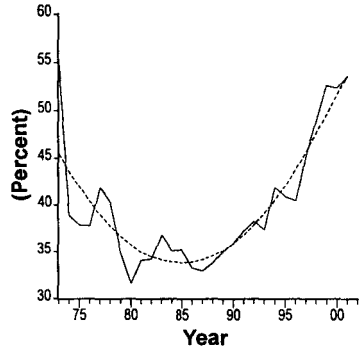
**Antigua/Barbuda: Loans/GDP**



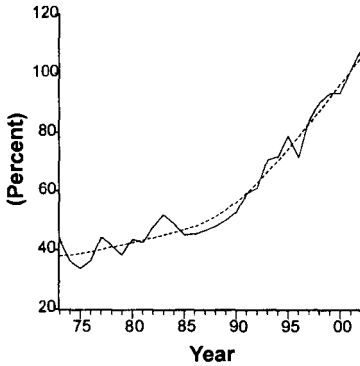
**Barbados: Assets/GDP**



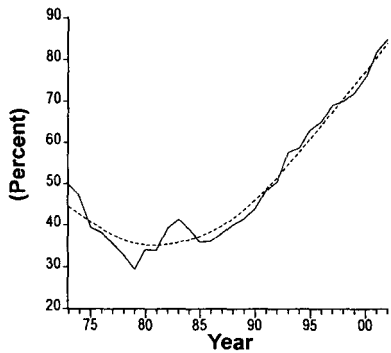
**Barbados: Loans/GDP**



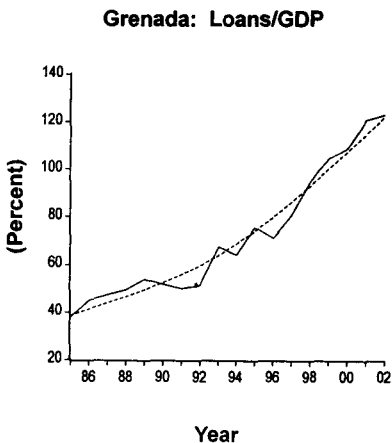
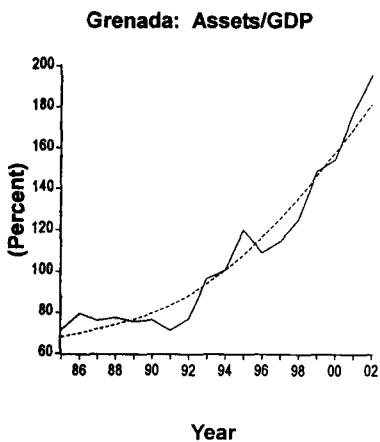
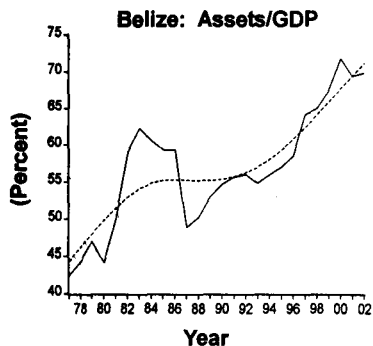
**Bahamas: Assets/GDP**



**Bahamas: Loans/GDP**

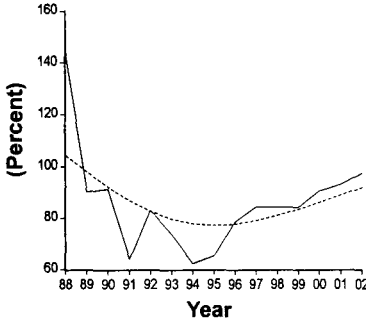


**APPENDIX A: Deepening of Bank Activities**  
**(The trend is indicated by the broken lines) - Cont'd**

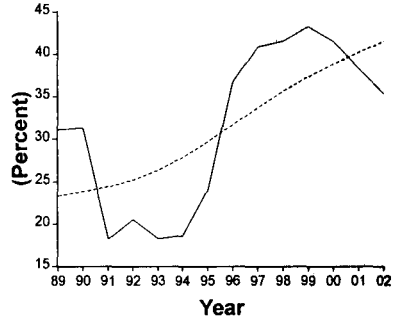


**APPENDIX A: Deepening of Bank Activities  
(The trend is indicated by the broken lines) - Cont'd**

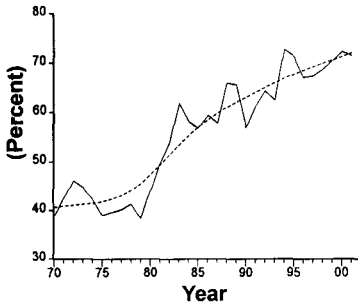
**Guyana: Assets/GDP**



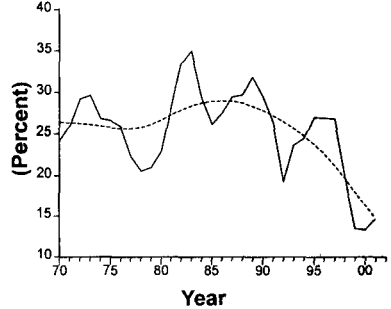
**Guyana: Loans/GDP**



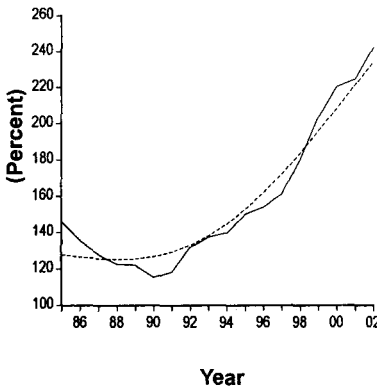
**Jamaica: Assets/GDP**



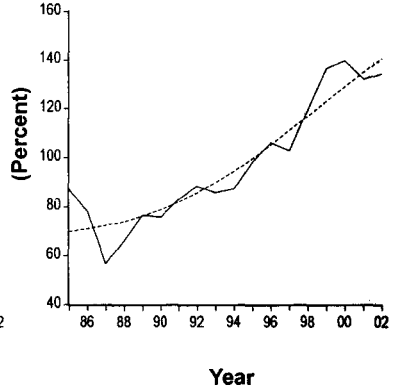
**Jamaica: Loans/GDP**



**St. Kitts & Nevis: Assets/GDP**

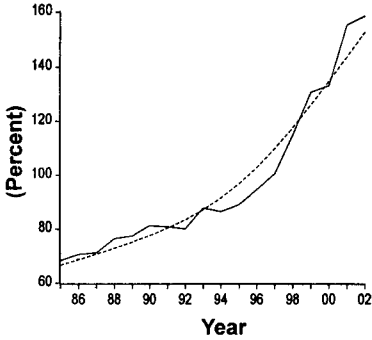


**St. Kitts & Nevis: Loans/GDP**

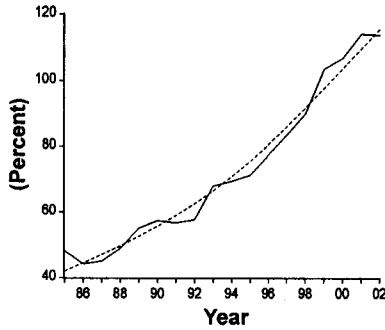


**APPENDIX A: Deepening of Bank Activities**  
**(The trend is indicated by the broken lines) - Concluded**

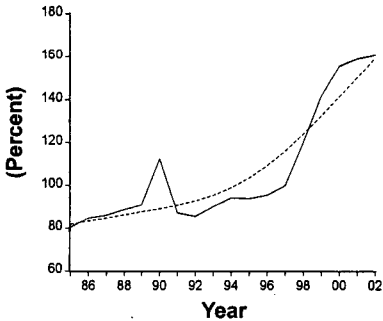
**St. Lucia: Assets/GDP**



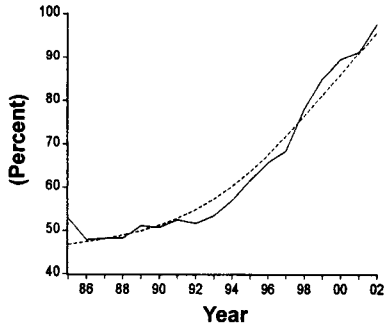
**St. Lucia: Loans/GDP**



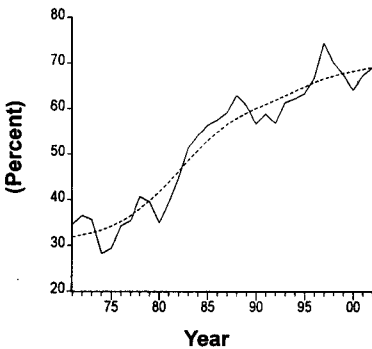
**St. Vincent: Assets/GDP**



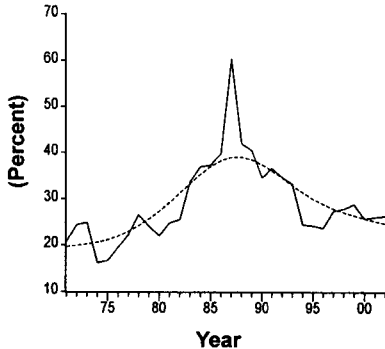
**St. Vincent: Loans/GDP**



**Trinidad & Tobago: Assets/GDP**



**Trinidad & Tobago: Loans/GDP**





# *Appendix B*

Appendix B

Credit Allocation (%)  
Table A

The Bahamas	1990	1995	1999	2002
Agriculture	0.5	0.8	0.4	0.2
Fisheries	0.4	0.4	0.2	0.1
Mining and Quarrying	0.2	0	0.1	0.0
Manufacturing	2.7	2.1	1.2	1.0
Distribution	11.7	9.1	5.2	6.0
Tourism	1.7	2.6	1.4	1.4
Entertainment and Catering	2.5	1.1	0.7	0.4
Transport	1.2	1.1	0.5	0.4
Construction	7.4	5.4	6	7.2
Government	5.5	2.9	1.3	1.0
Rest of the Public Sector	3.1	2.2	2.8	2.2
Private Financial Institutions	0.1	0.9	0.1	0.4
Professionals and Other Services	7.1	6.5	4.6	3.6
Personal	53.8	62.6	69.9	71.6
Miscellaneous	1.9	2.3	5.7	4.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

Source: *Quarterly Statistical Digest*, The Central Bank of the Bahamas.

Table B

Barbados	1990	1995	1999	2002
Agriculture	2.3	2.4	1.8	1.6
Fisheries	0.2	0.1	0.2	0.1
Mining and Quarrying	0.2	0.1	0.1	0.1
Manufacturing	14.0	8.1	4.5	3
Distribution	16.6	21.3	11	9.9
Tourism	6.7	10.2	10.7	11.5
Entertainment and Catering	2.4	1.9	0.8	1
Transport	5.8	1.1	1.4	1.2
Public Utilities	1.8	1.1	1.4	.4
Construction	4.0	5.0	4.9	7.8
Government	0.0	0.0	2.9	0
Statutory Bodies	2.2	1.6	2.8	5.4
Financial Institutions	7.3	2.1	3	5.4
Professional Services	6.7	7.5	9.4	6
Personal	22.9	28.6	38.6	40.7
Miscellaneous	6.9	8.9	6.5	5.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

Source: *Economic and Financial Statistics*, Central Bank of Barbados.



**Table C**

<b>Belize</b>	<b>1990</b>	<b>1995</b>	<b>1999</b>	<b>2002</b>
Government Services	0	0.0	0.5	1.3
Public Utilities	1	1.1	0.0	3.2
Private Utilities	0	0	0.5	0.0
Agriculture	16.7	13.7	8.5	8.6
Commercial Fishing	1.1	0.9	1.7	2.8
Forestry	0.4	0.3	0.1	0.2
Manufacturing	6.1	8.3	6.8	2.5
Tourism	3.8	4.5	4.9	5.7
Building and Construction	20.6	23.2	21.8	22.3
Real Estate	3.3	6.6	4.7	9.3
Financial Institutions	0.7	0.4	0.4	0.49
Distribution	25.4	20.6	17.9	16.6
Professional Services	1.0	0.7	1.3	1.3
Transport	3.5	2.8	4.4	3.0
Entertainment	0.4	0.5	0.4	0.3
Mining and Exploration	0.4	0.2	0.1	1.3
Personal Loans	15.6	16.1	26	21.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

**Source:** *Economic and Financial Statistics*, Central Bank of Belize.

Table D

<b>Guyana</b>	<b>1990</b>	<b>1995</b>	<b>1999</b>	<b>2002</b>
General Government	16.2	2.2	1.4	0.0
Financial institutions	0.0	0.3	1.1	1.5
Agriculture	6.8	15.5	15.0	14.3
Mining and Quarrying	3.6	4.8	1.9	2.5
Manufacturing	13.3	9.5	24.4	28.8
Construction	8.4	5.4	5.1	3.5
Entertainment and Catering	6.5	3.2	2.7	3.5
Transportation	3.1	3.0	1.8	2.0
Distribution	11.7	22.0	19.2	20.9
Professional Services	1.2	2.3	1.4	1.3
Other Services	15.5	7.0	6.7	6.4
Households	13.7	24.7	19.4	18.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

**Source:** *Statistical Bulletin*, Bank of Guyana.

**Table E**

<b>Jamaica</b>	<b>1990</b>	<b>1995</b>	<b>1999</b>	<b>2002</b>
Agriculture	9.8	4.1	4.3	2.4
Mining	0.4	0.8	0.3	0.1
Manufacturing	17.1	13.3	8.1	4.3
Construction and Land Development	22.9	12.2	5.5	4.5
Financial Institutions	2.6	5.1	3.4	2.9
Transport, Storage and Communication	12.1	9.6	3.9	7.4
Electricity, Gas and Water	0.4	0.2	0.2	2.5
Government Services	8.6	7.3	13.3	31.2
Distribution	4.1	7.7	7.7	6.1
Tourism	8.3	8.4	9.7	9.5
Entertainment	0.8	0.6	0.4	0.3
Professional and Other Services	6.7	11.3	12.3	5.7
Personal	6.2	19.4	30.7	23.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

**Source:** *Statistical Digest*, Bank of Jamaica.

Table F

Trinidad and Tobago	1990	1995	1999	2002
Central Government	0.4	0.4	0.2	0.3
Agriculture	3.8	2.8	2.9	1.8
Petroleum	4.4	1.8	2.2	7.2
Manufacturing	16.4	15.2	11.3	10.2
Construction	3.5	2.5	5.1	4.7
Distributive Trades	10.1	9.8	4.4	7.4
Hotels and Guest Houses	0.7	0.5	2.2	1.2
Transport, Storage and Communication	5.7	0.6	5.6	4.0
Finance, Insurance and Real Estate	12.9	14.0	10.8	13.3
Education, Cultural and Community Services	1.0	1.0	0.3	0.1
Personal Services	1.1	3.9	3.4	4.8
Electricity and Water	1.0	0.1	2.0	2.4
Consumers	24.2	29.4	43.0	37.1
Real Estate Mortgage Loans and Lease Finance	14.8	12.0	6.6	5.5
<b>TOTAL LOANS</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

Source: *Annual Economic Survey*, Central Bank of Trinidad and Tobago.

**Table G**

<b>Antigua and Barbuda</b>	<b>1990</b>	<b>1995</b>	<b>1998</b>	<b>2002</b>
Agriculture	1.2	0.3	0.30	0.4
Fisheries	0.4	0.1	0.1	0.1
Mining and Quarrying	0.3	0.3	0.1	0.3
Manufacturing	4.0	4.1	2.8	2.6
Utilities	1.0	0.1	1.6	1.6
Construction and Land Development	17.2	5.9	6.6	7.0
Distributive Trades	16.8	17.9	15.8	11.5
Tourism	14.3	10.2	8.7	8.1
Entertainment and Catering	2.1	2.9	2	1.3
Transportation and Storage	1.7	2.0	2.2	1.6
Financial Institutions	1.1	1.4	2.4	2.1
Professional and Other Services	6.0	6.5	7.8	7.8
Government Services	10.9	19.2	16.4	12.9
Personal	23.2	29.1	33.1	42.7
<b>Total Loans, Advances and Overdrafts</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

**Source:** *Financial Statistics Year Book*, Eastern Caribbean Central Bank.

Table H

Dominica	1990	1995	1998	2002
Agriculture	3.3	2.9	1.4	1.9
Fisheries	0.1	0	0.0	0.0
Mining and Quarrying	0.5	1.1	1.4	1.2
Manufacturing	5.6	8.7	6.7	3.4
Utilities	2.2	3	4.5	6.9
Construction and Land Development	2.2	2.4	3.2	2.8
Distributive Trades	11.8	17.5	15.5	14.2
Tourism	3.0	3.5	4.9	4.0
Entertainment and Catering	1.1	0.8	0.6	0.5
Transportation and Storage	7.5	3.0	3.5	3.7
Financial Institutions	1.2	4.8	3.8	0.2
Professional and Other Services	2.7	5.1	4.6	3.9
Government Services	13.4	12.7	12.7	14.0
Personal	45.5	34.5	37.3	43.5
<b>Total Loans, Advances and Overdrafts</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

Source: *Financial Statistics Year Book*, Eastern Caribbean Central Bank.

**Table I**

<b>Grenada</b>	<b>1990</b>	<b>1995</b>	<b>1998</b>	<b>2002</b>
Agriculture	1.9	1.7	1.1	1.7
Fisheries	0.7	0.5	0.4	0.4
Mining and Quarrying	0.4	0.1	0.1	0.2
Manufacturing	7.6	5.5	2.9	3.2
Utilities	4.6	3.5	5.2	2.9
Construction and Land Development	3.5	3.8	3.5	2.7
Distributive Trades	22.4	17.5	13.2	7.9
Tourism	8.9	11.4	7.7	5.3
Entertainment and Catering	0.8	0.6	1.6	1.7
Transportation and Storage	4.6	4.9	4.3	7.1
Financial Institutions	0.5	0.6	0.3	0.7
Professional and Other Services	2.6	3.7	4.9	3.5
Government Services	4.4	3.6	6.6	5.6
Personal	37.1	42.7	48.3	57.3
<b>Total Loans, Advances and Overdrafts</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

**Source:** *Financial Statistics Year Book*, Eastern Caribbean Central Bank.

Table J

Montserrat	1990	1995	1998	2002
Agriculture	-	0.6	1.1	0.9
Fisheries	-	0.2	0.0	0.0
Mining and Quarrying	-	3.6	0.2	0.0
Manufacturing	-	1.6	1.0	-0.5
Utilities	-	0.8	-	0.0
Construction and Land Development	-	5.6	3.9	1.7
Distributive Trades	-	17.1	18.6	12.4
Tourism	-	2.9	7.5	0.0
Entertainment and Catering	-	1.6	1.9	1.0
Transportation and Storage	-	3	1.8	0.5
Financial Institutions	-	0.9	1.7	0.6
Professional and Other Services	-	5.8	6.3	1.4
Government Services	-	0.5	-	8.6
Personal	-	55.9	56.1	72.4
<b>Total Loans, Advances and Overdrafts</b>	-	<b>76.4</b>	<b>100</b>	<b>100</b>

Source: *Financial Statistics Year Book*, Eastern Caribbean Central Bank.



**Table K**

<b>St. Kitts and Nevis</b>	<b>1990</b>	<b>1995</b>	<b>1998</b>	<b>2002</b>
Agriculture	9	7.5	10.7	19.9
Fisheries	0.1	0.1	0.0	0.1
Mining and Quarrying	0.1	0.1	0.1	0.1
Manufacturing	4.5	3.6	3.3	2.0
Utilities	3.3	4.4	1.2	1.8
Construction and Land Development	3.5	12.3	9.5	3.9
Distributive Trades	11.6	12.7	11.8	11.7
Tourism	7.1	5.5	6.2	5.2
Entertainment and Catering	0.5	0.8	1.4	0.5
Transportation and Storage	2.4	1.1	1	0.5
Financial Institutions	0.2	0.1	1.8	0.6
Professional and Other Services	2.1	4.2	2.8	3.7
Government Services	16.6	12.1	14.9	10.9
Personal	38.9	35.5	35.5	39.2
<b>Total Loans, Advances and Overdrafts</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>

**Source:** *Financial Statistics Year Book*, Eastern Caribbean Central Bank.

Table W

St. Lucia	1990	1995	1998	2002
Agriculture	2.1	4.4	1.4	1.8
Fisheries	0.1	0.1	0.1	0.3
Mining and Quarrying	0.9	0.4	0.1	0.2
Manufacturing	3.5	3.1	3.6	3.1
Utilities	1.8	1.7	1.3	2.2
Construction and Land Development	4.3	3.8	4.2	6.4
Distributive Trades	14.7	15.7	12.6	12.4
Tourism	14.3	12.2	8.3	11.1
Entertainment and Catering	0.6	0.9	1.1	1.3
Transportation and Storage	4.4	5.1	2.8	1.9
Financial Institutions	0.4	1.1	0.8	0.9
Professional and Other Services	3.1	6.2	6.6	7.9
Government Services	5.9	4.7	7.6	6.5
Personal	43.9	40.6	49.4	44.0
<b>Total Loans, Advances and Overdrafts</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>	<b>100</b>

Source: *Financial Statistics Year Book*, Eastern Caribbean Central Bank.

**Table X**

<b>St. Vincent and the Grenadines</b>	<b>1990</b>	<b>1995</b>	<b>1998</b>	<b>2002</b>
Agriculture	6.4	3.9	3.2	1.9
Fisheries	0.3	0.3	0.1	0.1
Mining and Quarrying	0.3	0.1	0.2	0.1
Manufacturing	11.3	6.7	4.1	2.4
Utilities	2.5	0.6	0.6	0.2
Construction and Land Development	7.4	5.3	3.7	2.8
Distributive Trades	12.5	12.1	12.9	11.2
Tourism	2.6	6.7	4.6	3.8
Entertainment and Catering	0.5	0.7	1.1	1.0
Transportation and Storage	6.3	3.4	3.4	2.7
Financial Institutions	5.2	1.5	1.7	1.4
Professional and Other Services	1.7	3.6	3.2	4.3
Government Services	14.2	13.3	9.6	13.1
Personal	28.9	41.8	51.5	55.0
<b>Total Loans, Advances and Overdrafts</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Source:** *Financial Statistics Year Book*, Eastern Caribbean Central Bank.



# *Appendix C*

## **Appendix C**

### **List of Commercial Banks used in Chapter 3**

Antigua Barbuda Investment Bank  
Antigua Commercial Bank  
Antigua Bank  
Atlantic Bank  
Bank of Commerce of Trinidad and Tobago  
Bank of Montserrat  
Bank of Nevis  
Bank of the Bahamas  
Barbados National Bank  
Belize Bank  
CIBC Caribbean Limited Antigua Branch  
CIBC Jamaica  
Citizens Bank  
Commonwealth Bank (The Bahamas)  
First Citizens Bank (Trinidad and Tobago)  
Grenada Bank of Commerce  
Grenada National Cooperative Bank  
Guyana Bank for Trade and Industry  
Guyana National Cooperative Bank  
National Bank of Industry and Commerce (Guyana)  
National Commercial Bank Jamaica  
NCB (SVG)  
NCB Grenada  
NCB Dominica  
NCB St. Lucia

Nevis Cooperative Banking Company  
Republic Bank (Trinidad and Tobago)  
Scotiabank Trinidad and Tobago  
Sr. Kitts-Nevis-Anguilla National Bank  
St. Lucia Co-operative Bank  
Swiss American National Bank of Antigua  
The Royal Bank of Trinidad and Tobago  
Workers Bank (1989) (Trinidad and Tobago)