

INVESTIGATING THE PERFORMANCE OF CARIBBEAN COMMERCIAL BANKS IN THEIR MOBILIZATION AND USE OF SAVINGS

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I. INTRODUCTION

With declining Foreign aid flows to the region, Caribbean countries now need to intensify their focus on national and regional means of financing development. The Monterrey Consensus (2002) notes that many developing countries increasingly depend on local funds to finance their development needs. Domestic financial institutions are important in this respect, as by intermediating between savers and borrowers, they can efficiently mobilize and use society's savings (Levine 1997).

When savings are mobilized by financial institutions, economic growth can be fostered by increases in both the quantity and quality of investments (Goldsmith 1969). The quantity of investment flows are increased by financial institutions which minimize intermediation costs and thus maintain cost efficiency in transferring the maximum amounts of funds to the real sectors of the economy (Valverde et al 2000). Financial sector prices are also important determinants of the quantity of investments, as large spreads between lending and deposit rates adversely affect both the supply of and demand for loanable funds¹. Similarly, the quality of investments in a country is impacted by the domestic financial sector, because, as noted by Schumpeter, such institutions choose which firms get to use society's savings². Numerous studies have therefore shown that financial institutions' contribution to economic development stem from both an increased quantity of investments and from the increased efficiency in the allocation of investment.³

The acknowledgement of these roles of financial institutions by policymakers and multilateral lending agencies led to the implementation of financial sector reform programmes in many Caribbean countries in the 1980s. However, despite the resultant rapid financial sector development

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and sophistication across many countries in the region, commercial banks remain the dominant financial institutions with the largest market share and the largest volume of savings mobilized (Danns, 1996). Much of the responsibility for financing regional development therefore still lies with these institutions. This paper thus examines the mobilization and use of savings by commercial banks in five Caribbean countries – Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago. Using data from each country's central bank, the performance of commercial banks is examined and compared across countries in the four basic tenets of financial intermediation. Through this comparison, the paper highlights areas in which commercial banks in some countries have exhibited higher standards of performance relative to the others, and suggests areas in which financial institution managers, policymakers and regulators from different countries within the region can investigate further so as to learn from each other and develop best practices in effective and efficient financial intermediation. The sources of heterogeneity across countries are also examined to provide possible explanations for the differences in Caribbean commercial bank performance.

The results show that two out of the five countries studied distinguished themselves by maintaining the highest standards of performance in all the basic tenets of intermediation. It was also shown that these countries were those which had relatively high levels of per capita income, low and stable rates of inflation, low Treasury bill rates, low and stable exchange rates and low debt burdens. They were also the countries with the smallest populations, and had the lowest incidence of social and political instability. Without making any conclusions as to causality, this paper highlights the intricate relationship that exists between the real and financial sectors of the economy, as the countries in which commercial banks were making the greatest contribution to the economy, were also the ones which had the strongest economic fundamentals.

These results are detailed in the four subsequent sections as follows: Section 2 outlines the data and methodology used; Section 3 provides the contextual analysis by comparing the countries being studied; Section 4 highlights the results and analysis of the data on commercial bank performance; and Section 5 presents the conclusions derived.

II. METHODOLOGY AND DATA

This paper compares the performance of commercial banks in five Caribbean countries in their basic role as intermediaries. It builds on the work of Tennant (2007) who examines the mobilization and use of savings across types of financial intermediaries in the Jamaican economy.

Indicators of effectiveness in financial intermediation are compared across five Caribbean countries with the intention of highlighting areas in which commercial banks in some countries have exhibited higher standards of performance relative to the others. Relevant indicators in the form of easily interpreted ratios have been calculated for each of the facets of intermediation, as well as for use in identifying country sample heterogeneity. These indicators facilitate comparison across the countries under consideration. Annual data from the period 1986 to 2002 have been used. All data were sourced from annual statistical digests published by the respective countries' central banks and/or statistical offices, the IMF's *International Financial Statistics*, and the UNDP's *Human Development Reports*.

The average values of the indicators of intermediation effectiveness and country sample heterogeneity for the review period are compared across countries. The statistical significance of the difference between paired means is tested using the Wilcoxon Signed Rank Test. Due to the relatively long period of time being studied; the averages of the indicators are also calculated and compared across countries for sub-periods coinciding with the pre-liberalization, liberalization and post-liberalization periods in all the countries. Averages are also compared for the crisis and post-crisis periods in Jamaica, to account for the differential impact of the crisis on this country⁴. For conciseness, these figures are only reported when they indicate that the ranking of the countries in any of the sub-periods is different than the ranking in the overall review period. All nominal figures are deflated using the GDP deflator, and trends over time are analysed by examining average annual growth rates of key indicators. It is, however, not possible to use either parametric or non-parametric methods to test for the statistical significance of the difference between the mean of growth rates for the different countries, because average annual growth rates are calculated using the geometric mean. In these instances, attention is drawn to outliers that noticeably affect the averages.

III. CONTEXTUAL ANALYSIS: A COMPARISON OF THE COUNTRIES STUDIED

The countries studied share a number of common opportunities and threats by virtue of them all being small developing states in the Caribbean, but are also critically different with respect to their size, economic performance, and social and political realities. This section first briefly highlights the similar internal economic conditions, external economic influences, and financial structure that these countries share; followed by an analysis of some of the critical macroeconomic, sectoral and demographic differences between them.

Similar Internal Economic Conditions and External Economic Influences

Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago (along with most other Caribbean states) share a common history of 'being settlements of slavery and indentureship and whose *raison d'être* was as suppliers of agricultural commodities and natural resources for the European powers.'⁵ This historical background has shaped the basic economic structure of these countries, in that they have open economies and produce a relatively narrow range of products. This has led to economic vulnerability, due to the extent of trade dependency and the vulnerable nature of the countries' export economies. Girvan (1997:11) asserts that, 'most Caribbean economies depend on the export of one or a small number of resource products, and/or tourism', and further notes that, 'merchandise exports continue to consist largely of primary commodities and other resource products.' This poses serious problems for the countries' future growth, as, 'primary commodities are the most stagnant sector in the growth of world trade... (and) are subject to declining terms of trade with respect to manufactured goods.' Similarly, tourism faces a growing number of risk factors which further exposes the countries to economic shocks. Such factors include the threat of terrorism, natural disasters, environmental degradation, crime and tourist harassment, adverse media publicity, over-concentration in the US and Western European markets, and intensified competition in the industry (Girvan 1997:12). This economic vulnerability has led to a high dependence on multilateral and bilateral funds and on commercial borrowing. This flow of funds has declined in recent times due to the end of the Cold War and fiscal stringency in the major OECD countries, and its reduction has highlighted the need for greater efficiency in the mobilization of domestic resources.

Barbados, Belize, Guyana, Jamaica, and Trinidad and Tobago all faced severe economic problems in the 1980s and early 1990s, and were forced to seek assistance from the IMF and/or the World Bank. Under stabilization and structural adjustment programmes all five countries adopted similar market-oriented strategies, including, *inter alia*, trade and financial liberalization, privatization, tax reforms, and reductions in public spending (Danns 1996:4). Increased involvement in the regional customs union – the Caribbean Community and Common Market (CARICOM) – also committed the countries to establish a common external tariff, foster trade liberalization among themselves, and facilitate the free movement of skilled, professional and contract workers. Hilaire (2001:7) therefore highlights the similarities amongst the countries studied by noting that they each were 'influenced by the experiences of the other... countries, as well

as by policy measures attached to multilateral loans and by trade commitments under CARICOM.'

Similar Financial Structure and Influences

The financial sectors in Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago were also affected by common external influences and therefore had similar structures. The history of the Caribbean region has affected the financial systems in these countries, as in the context of the plantation economies of the Caribbean, 'early financial institutions functioned to enhance internal and external payment systems, provide trade financing, mobilize savings, facilitate capital transfer and investment abroad as well as lubricate the trade links between the regional and international economies' (Danns, 1996:1). This confined the region's early financial sector to being 'reactive and accommodating as opposed to proactive to changes in the economy and the wider society.' In an attempt to correct this, the countries studied sought to nationalize all or parts of their financial sectors in the late 1960s to early 1970s. However, Danns (1996:3) notes that, 'the heavy hand of state intervention, regulation and ownership functioned to stymie the creative expansion of the financial sector of regional economies.' Therefore, as stabilization and structural adjustment plans were implemented in the 1980s the financial sectors of the region were liberalized.

Following this period of liberalization, the financial sectors in the region underwent a number of similar changes in the 1990s. These include: the concentration of banks and other financial institutions through acquisitions and mergers; the increase in cross border activities of financial institutions; the convergence of banking and insurance activities; the growing importance of nonbank financial institutions; and the incorporation into financial groups of companies carrying out non-financial activities (DaCosta and Cueva, 2000:5). Despite these changes though, commercial banks are still the dominant institutions throughout all the countries studied. The regulation and supervision of the domestic financial institutions is carried out primarily by the central banks in each country, and the regulatory and supervisory standards tend to be similar due to the existence of the Caribbean Group of Bank Supervisors, which seeks to introduce minimum regulatory and supervisory standards for banks and other deposit-taking financial institutions (Worrell et al, 2001:3&10-11).

Macroeconomic Differences

Despite the considerable similarities between Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago, important differences do exist. Table 1 highlights some of these differences in the macroeconomic

environments of the respective countries. When the average real per capita GDP is compared across countries a clear distinction amongst relatively richer and poorer countries is evident, as Trinidad and Tobago (US\$2,735.50), Barbados (US\$1,685.81) and Belize (US\$1,551.53) have significantly higher average per capita incomes than Jamaica (US\$509.39) and Guyana (US\$158.97). The economic growth performances of the higher-income countries reflect the recent and relatively fast growth of the Belizean economy (5.76%), as contrasted with the lower growth rates for the Trinidadian (1.72%) and Barbadian (0.96%) economies which had achieved high-income status from much earlier in their history. The lower-income countries, Guyana and Jamaica, both had very similar average annual growth rates of 2.46% and 2.29%, respectively.

Distinctions across countries are also evident when fundamental macroeconomic indicators are examined. For example, whereas Guyana and Jamaica had relatively high and statistically indistinguishable average inflation rates of 27.54% and 20.29%, respectively, Barbados and Belize were able to maintain relatively low average inflation rates of 2.93% and 2.00%, which were also not statistically different at the 5% significance level. Trinidad and Tobago's inflation rate of 6.66% fell between these two extremes. The difference in the volatility of the respective inflation rates is also noteworthy, because whereas Barbados, Belize and Trinidad and Tobago were all able to maintain relatively low levels of volatility in their inflation rates, Guyana and Jamaica had much higher levels of volatility, reflective of greater instability in the macroeconomic environments of these two countries.⁶

Similar inferences can be made when the nominal and real US dollar exchange rates were compared across countries. Barbados and Belize had the lowest nominal exchange rates which were fixed at BDS\$2 and BLZ\$2 to US\$1, and the lowest real exchange rates averaging BDS\$2.09 and BLZ\$1.95 to US\$1, respectively. Although not fixed, and not as low as the Barbadian and Belizean rates, the Trinidadian nominal and real exchange rates were relatively low and stable, averaging TT\$5.45 to US\$1 and TT\$6.42 to US\$1, respectively. At the other extreme, the Guyanese dollar had a much higher nominal average exchange rate of GY\$115.41 to US\$1, which had depreciated considerably in nominal terms over the review period from GY\$4.40 to US\$1 in 1986 to GY\$191.75 to US\$1 in 2002. Guyana's real exchange rate was also high (GY\$136.96 to US\$1), and depreciated from GY\$78.76 to US\$1 in 1986 to GY\$134.36 to US\$1 in 2002. The average nominal Jamaican exchange rate of J\$26.27 to US\$1 is also relatively high and masks depreciation in the rate over the review period from J\$5.48 to US\$1 in 1986 to J\$48.73 to US\$1 in 2002. Due to

high rates of inflation, the real average exchange rate for Jamaica was considerably higher at J\$57.66 to US\$1. The real rate however appreciated over the review period moving from J\$59.19 to US\$1 in 1986 to J\$44.68 to US\$1 in 2002. Notwithstanding this, the exchange rate was much more volatile in Jamaica and Guyana, than it was in Barbados, Belize and Trinidad and Tobago.⁷

Not surprisingly, this distinction amongst the two sets of countries is also evident when macro-policy variables such as Treasury bill rates and debt to GDP ratios are examined. The average Treasury bill rates for Barbados (5.97%), Belize (6.10%) and Trinidad and Tobago (8.18%) are not statistically different at the 5% level, and are considerably lower than the comparative rates for Guyana (15.13%) and Jamaica (25.76%). Similarly, the total public sector debt to GDP ratio for Guyana (458.85%) and Jamaica (115.37%) are much higher than the ratios for Belize (40.05%), Trinidad and Tobago (46.56%) and Barbados (72.24%). Due to Guyana's high debt ratios and low per capita income, it has been classified by the World Bank as a heavily indebted poor country, while Jamaica has been classified as a heavily indebted lower-middle income country. The reasons for these country's indebtedness are however different, as Guyana is impacted by an average fiscal deficit to GDP ratio (-17.32%) which is much higher than those of the other countries (Barbados -3.41%, Belize -2.91%, Jamaica -1.72% and Trinidad and Tobago -1.04%). Jamaica's high indebtedness in recent times has been largely caused by the cost of recovery from a financial sector crisis in the mid to late 1990s. The Jamaican Minister of Finance and Planning noted that the intervention in the financial sector is the critical factor which caused the national debt to move from the internationally acceptable levels of approximately 80% of GDP pre-crisis to over 140% of GDP following the crisis (Davies 2006).

Sectoral Differences

Although it was previously noted that the countries studied all produce a relatively narrow range of products, the analysis of the sectoral composition of real output in Table 2 suggests some distinction among the countries even within this narrow range. When the five sectors with the largest shares of GDP are compared across countries it is evident that Guyana is unique as its economy is still heavily dependent on agriculture, which accounts for almost 30% of GDP. The structure of the Trinidadian economy is similarly heavily centred around its petroleum industry, which accounts for almost 25% of GDP, and fuels many related sectors in the economy. Production in the Jamaican economy is more evenly distributed between distribution (19.36%), manufacturing (17.43%) and construction

(16.95%), while Barbados and Belize are more reliant on their services sectors in the form of tourism, distribution and other services.

There were also noteworthy differences within the financial sectors of the respective countries, because, as shown in Table 3, even though commercial banks dominate the sector in all the countries, the relative importance of private and public sector non-bank financial institutions (NBFIs) vary. There are seven commercial banks in Barbados, which account for 62% of total financial assets. Other deposit taking institutions, which include trust companies, mortgage finance companies, finance companies and merchant banks, only account for 8% of total financial assets. Insurance companies and credit unions are the other types of financial institutions operating in Barbados, accounting for 11% and 5% of total financial assets, respectively.⁸ Barbados also has a stock exchange, but it remains a marginal institution, with only 24 firms listed.⁹ In Belize there are four commercial banks which account for 74% of financial assets. There are also 12 credit unions and a government development bank, which together account for 20% of total financial assets. There are seven commercial banks in Guyana, which account for 71% of all financial assets. The remaining assets are evenly distributed among insurance companies, trust companies, pension funds, a building society, and a development bank.¹⁰ In Jamaica commercial banks account for approximately 65% of total assets, while near banks account for almost 30% of total financial assets, and a government-owned development bank accounts for 5% of assets. The Jamaican stock exchange is the largest in the region, but is nonetheless miniscule by international standards, with only 40 listed companies in September 2003. Although commercial banks account for the largest share of the Trinidad and Tobago financial sector, with 46% of total assets, this figure is relatively small when compared to the other countries. Finance companies, mortgage companies, investment banks and other near banks account for 20% of total assets, and insurance companies and credit unions account for 15% and 5%, respectively. Trinidad and Tobago also has a stock exchange, but it is very small and new issues are rare.¹¹

Within the respective financial sectors another major difference is the occurrence of recent financial crises. Whilst the Jamaican financial sector experienced a major financial crisis in the mid to late 1990s, the financial systems in Barbados and Guyana remained fairly stable over the review period, with problems being limited to the state-owned banks in each country. There were also no major failures of financial institutions in Belize. In Trinidad and Tobago, although a number of financial institutions received liquidity support from the government in the 1980s, there was no

systemic instability, as these institutions were restructured, and strengthened prudential standards were adopted.¹² The impact of the financial sector crisis on commercial bank intermediation in the Jamaican economy is highlighted in Tennant and Kirton (2006), where they show that there were declines in the real growth of Jamaican commercial banks' deposits and loans in the post-crisis years that were not experienced in the other countries. For example, in the three years prior to the crisis real deposits in Jamaican commercial banks were growing at an average annual rate of 4.16%, and in the three years during and immediately following the crisis the growth rate fell to -1.97%. By contrast, the corresponding pre and post crisis figures for Barbados were 3.82% and 6.00%, Belize -0.43% and 3.78%, Guyana -0.59% and 10.22% and Trinidad and Tobago 2.32% and 4.44%.

Demographic and Governance Differences

Although all the countries studied are considered to be small by international standards, Table 4 clearly indicates that Barbados and Belize, with populations of approximately 260,000 and 210,000, respectively, are much less populous than Jamaica (2.47 million) and Trinidad and Tobago (1.25 million). With an average population size of 760,000 Guyana falls between these two extremes, but is unique in that because of relatively high rates of migration, its population is projected by the UNDP to experience annual average rates of decline of -0.10% between 2003 and 2015. As the USAID (2001) notes, the migration of the most talented Guyanese has left the country with a limited human resource base. They also assert that lack of political stability caused by negative political engagement between the two major political parties has impeded expansion of investments. The World Bank (2000) similarly notes for Jamaica that her below average performance in maintaining political stability and reducing political violence adversely impacts on the country's ability to attract and sustain investment. In that report, wherein Caribbean states were ranked on the basis of a number of governance indicators, Belize ranked more highly than both Guyana and Jamaica in the important voice and participation and rule of law indicators, and Barbados and Trinidad and Tobago are ranked as above average in all the measures of governance. The World Bank (2000) thus asserts that good governance is an important factor explaining the relatively successful development in Barbados and Trinidad.

IV. COMMERCIAL BANK PERFORMANCE: RESULTS AND ANALYSIS

Data from Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago are used to calculate and compare indicators of commercial bank

performance in each of the tenets of effective financial intermediation. Sub-sections 4.1 to 4.4 examine commercial banks' relative effectiveness in maximizing the mobilization of savings, maintaining efficiency in the transferral of savings to the real sector through loans and financial investments,¹³ minimizing interest rate spreads, and efficiently allocating funds amongst competing borrowers. In each of these sub-sections reference will be made to relevant country sample differences which may aid in explaining differential commercial bank performance.

Savings Mobilization

The indicators of commercial banks' performance in savings mobilization are highlighted in Table 5. Effectiveness in this basic facet of intermediation is first compared across countries by examining the ratios of commercial bank deposits to current GDP for each country.¹⁴ Here it is evident that commercial banks in Guyana and Barbados had the highest deposit to GDP ratios of 83.87% and 75.30%, respectively. The difference between these two means is not statistically significant at the 5% level, suggesting that the performance of Barbadian and Guyanese commercial banks in this respect is just about at the same level. There are, however, statistically significant differences between all the other paired means, with Belizean commercial banks having the next highest deposit to GDP ratio of 54.69%, and Jamaica and Trinidad and Tobago having the smallest ratios of 42.91% and 40.19%, respectively. When the average annual growth rates of the deposit to GDP ratio is compared across countries, Barbados remains the top performer with a relatively high growth rate of 4.49%. Belize also performs relatively well with a growth rate of 2.46%. The figures, however, suggest that Guyana's ability to maintain its high deposit to GDP ratio may be short-lived, as it has the largest average annual rate of decline in this ratio (-1.59%), indicating that growth in commercial bank deposits has not been able to keep pace with the country's growth in GDP.¹⁵ Jamaican and Trinidadian commercial banks continue to perform relatively poorly in this respect with only marginal increases and decreases of 0.30% and -0.80%, respectively, in the deposit to GDP ratio. This trend in relative performances is also evident when the average annual growth of real deposits is compared across countries, as Barbados and Belize (with growth rates of 5.69% and 8.21%, respectively) continue to perform better than Jamaica and Trinidad and Tobago (with growth rates of 2.31% and 1.80%, respectively). Guyana's poor performance in improving on the high levels of savings mobilization achieved early in the review period also continued, as Guyanese commercial banks had the lowest average annual growth of real deposits (0.83%).

These cross-country differences in the levels and growth of the deposit to GDP ratio and in the growth of real deposits may, however, be partially explained by the dominance of each country's commercial banks in the mobilization of savings. This is because a low deposit to GDP ratio may not necessarily be reflective of poorly performing commercial banks, but rather of a deeper financial sector, where competition for deposits is stiffer and other types of financial institutions mobilize greater shares of deposits. The figures seem to lend support to this view, as the countries with the highest deposit to GDP ratios, Guyana and Barbados, had their commercial banks dominating the financial sector in savings mobilization, with the largest average shares of total deposits (86.76% and 83.71%, respectively). By contrast, Trinidadian and Jamaican commercial banks, which had the lowest deposit to GDP ratios, had smaller shares of total financial sector deposits of 78.35% and 69.46%, respectively. The only paired means which were not statistically different were the average shares of total deposits for Guyanese and Barbadian commercial banks. The large and statistically significant difference between means for Trinidadian and Jamaican commercial banks versus Barbadian and Guyanese commercial banks, both for their deposit to GDP ratios and their share of total deposits, suggests that the structure of the financial sector in each country may have an impact on commercial banks' relative performance in mobilizing savings, as competition from near-banks may affect the volume of savings mobilized by commercial banks.¹⁶

In an attempt to confirm whether or not different levels of competition from near banks was a major cause of the varying performances of commercial banks in mobilizing savings, the cross-country differences in the deposit to total assets ratio were examined. Here it is expected that if stiff competition from near banks accounts for Jamaican and Trinidadian commercial banks' relatively low deposit to GDP ratio and low growth of real deposits, then their deposit to total assets ratio should be relatively high. This is because it can be reasonably expected that competition would force the banks to operate more efficiently in using their assets to mobilize the maximum amount of savings. The figures show that apart from those of Belize and Guyana, all pairs of ratios were statistically different at the 5% level. In fact, the deposit to total assets ratio for Belize (78.96%) and Guyana (77.84%) were only exceeded by that of Barbados (82.27%). More interestingly, the ratios for Jamaican and Trinidadian commercial banks (69.85% and 64.16%, respectively) were again considerably lower than those of the other countries.¹⁷ The average annual growth of the deposit to total assets ratios for Jamaica and Trinidad were also both negative (-0.58% and -1.77%, respectively), while the growth

rates for Barbados, Belize and Guyana (0.26%, 0.05% and 0.86%, respectively) were all positive. This suggests that the relatively poor performances of Jamaican and Trinidadian commercial banks in mobilizing savings are not necessarily due to competition from near banks, but instead may be caused by relatively lower and diminishing levels of effectiveness in using their resources to mobilize savings.

The figures in Table 5 all indicate that amongst the countries studied, clear distinctions can be made between the relatively weak and strong performers in the mobilization of savings. With one of the highest deposit to GDP ratios, the largest deposit to total assets ratio, and having maintained some of the highest growth rates in these figures, Barbadian commercial banks have distinguished themselves as being the best performers in savings mobilization. Belizean commercial banks were also consistently strong performers in this respect, but the Guyanese commercial banks, while establishing high standards, were not able to inspire confidence in their ability to maintain these standards, due to their below average growth rates. At the other extreme, Jamaican and Trinidadian commercial banks consistently performed relatively poorly in the mobilization of savings. With the lowest deposit to GDP ratio, the smallest deposit to total assets ratio, and the highest average annual rates of decline in these ratios, Trinidad and Tobago were the weakest performers.

A comparison of the figures in Tables 1 and 5 give an indication as to possible explanations for the commercial banks' differential performance in savings mobilization. Barbados and Belize, the countries wherein the commercial banks performed best in savings mobilization, were also the countries with relatively high income levels, low and stable rates of inflation, relatively strong and stable domestic currencies, and relatively stable political and social environments. This is not surprising, as Gavin et al (1997) note that in addition to fostering economic growth, countries can promote saving by 'creating a stable and predictable economic environment that rewards savers for thrift and reduces fears that inflation or a collapsing financial system will lead to expropriation of their savings.' Jamaica's relatively poor performance in savings mobilization thus seems to at least partially be explained by the instability in the macroeconomic environment and the adverse effects of the financial sector crisis of the mid to late 1990s. The recent worsening of Guyana's performance in savings mobilization also seems to be related to macroeconomic instability, as well as a relatively high central government fiscal deficit. This is important as the literature notes that increased public saving can have a positive impact on national saving rates.¹⁸

The relatively poor performance of Trinidadian commercial banks in mobilizing savings is, however, not as easily explained, because Trinidad has relatively high levels of per capita income, and strong indicators of macroeconomic, social and political stability. Only two major differences between Trinidad and the high performance countries could be identified. The first relates to Trinidad's production of petroleum as its major industry. There is, however, no clear reason as to why this would adversely affect savings mobilization, unless it can be shown that the profits from this industry are not being saved locally. The data in this study do not allow for such conclusions, and as such, further research is necessary to determine whether the quantum of foreign direct investment involved in the petroleum industry has an effect on domestic savings. The other difference between Trinidad and Tobago and the high performance countries relates to the relatively large share of the market that is controlled by near banks. Whereas commercial banks in Trinidad have the largest share of total financial assets, they are significantly less dominant than in the other countries studied. This suggests that heightened competition for deposits in the Trinidadian financial sector could account for the commercial banks' relatively poor performance in mobilizing savings. The Trinidadian banks' low deposits to total assets ratio however indicates that such competition is not forcing the banks to adopt higher standards of efficiency.

Transfer of Funds to the Real Sector

Success in financial intermediation is not only based on strong performances in mobilizing savings, but is also critically dependent on the effectiveness and efficiency of commercial banks in transferring those funds to borrowers and investors in the real sectors of the economy. Tables 6 and 7 present the indicators of the commercial banks' performance in loan issuance and investments in financial instruments, respectively.

Loans

The cross-country comparison of the commercial banks' loans to GDP ratio again reflects the high standards of performance set by the Barbadian banks, with the largest ratio of 48.85%. Belize and Guyana are the next best performers, with loans to GDP ratios of 46.09% and 40.31% and having no statistical difference between these means at the 5% level.¹⁹ All the other ratios are statistically different, with Jamaica and Trinidad and Tobago having considerably lower loans to GDP ratios of 21.94% and 32.12%, respectively. These two countries also perform below the standards set by the other countries when the average annual growth rates of the loans to GDP ratio are compared, as they have relatively high annual rates of decline of -2.03% for Jamaica and -2.61% for Trinidad and

Tobago.²⁰ Guyanese commercial banks similarly have a negative growth rate for the review period of -1.65%.²¹ By contrast, Barbados and Belize continue their strong performance with average annual growth rates of 3.33% and 3.24%, respectively. As expected, these trends are also reflected in the commercial banks' average annual growth of real loans, with Belize and Barbados having the highest growth rates of 9.03% and 4.01%, respectively, followed by Guyana with a very modest growth rate of 0.77%, and with Jamaica and Trinidad and Tobago both having average annual rates of decline in real loans of -0.07% and -0.06%, respectively.

The commercial banks' share of total loans issued by the financial sectors in each country resembles very closely their share of total deposits, with Guyanese and Barbadian commercial banks having the largest shares of total loans (85.98% and 73.66%, respectively), as opposed to Jamaican and Trinidadian banks which had relatively smaller shares of 66.94% and 70.68%, respectively.²² It is interesting to note though, that while the difference between the means for the shares of total loans issued by Jamaican and Trinidadian banks is not statistically significant, their ratios of loans to total assets are statistically different, with the Trinidadian banks performing better than the Jamaican banks in this respect. In fact, with an average loan to total assets ratio of 51.64%, the performance of the Trinidadian banks in maximizing their issuance of loans with the resources at their disposal was not statistically different from the consistently high performing Barbadian banks (53.63%), and was only exceeded by the Belizean banks, which had a very high loans to total assets ratio of 66.25%. It must, however be noted that the loans to total assets ratio for Trinidadian commercial banks has fluctuated widely over the review period. In 1986-1991 they had the highest ratio averaging 66.09%. The averages for 1992-1994 and 1995-1997 fell significantly to 51.50% and 36.84%, respectively, with the performance in 1995-1997 being worse than that of all the other countries. By 1998-2002 improved performances were recorded, with the average increasing to 41.16%, again rising to levels higher than those recorded by their Jamaican counterparts. Jamaican commercial banks on the other hand recorded fewer fluctuations and had the smallest loans to total assets ratio of 36.22%, which was not statistically different from that of the Guyanese banks (37.08%). Guyana, however, along with Belize, were the only two countries wherein the commercial banks were able to maintain positive average annual growth rates of this ratio (0.80% and 0.81%, respectively). Trinidadian, Jamaican and Barbadian commercial banks experienced declining rates of growth of their loans to total assets ratio of -3.57%, -2.89% and -1.34%, respectively.

The indicators in Table 6 all suggest that Belize and Barbados are the strongest performers in transferring the funds mobilized from the saving public to the real sectors in the form of loans. Belizean banks, however, are deemed to have outperformed the Barbadian banks, by virtue of having a significantly higher average annual growth of real loans, and a positive growth rate of its loans to total assets ratio. It is also interesting to note that along with a high loan to total assets ratio, Belizean banks were able to achieve marginally higher growth rates in real loans than in real savings, suggesting a high degree of efficiency in the intermediation process. Jamaican and Trinidadian banks had relatively low standards of performance, with relatively small loans to GDP ratios and relatively large rates of decline in this ratio. The loans to total assets ratio for Jamaican banks was also relatively small, and for Trinidadian banks it fluctuated widely in the sub-periods examined. Of greater concern though, are the low and in most cases negative growth rates for the loans to total assets ratios for all the countries. This can either be interpreted as an increase in the inefficiency of the intermediation process between savers and borrowers, or a change in the primary way in which funds are transferred to the real sectors. The latter issue is examined next, while the former is addressed in Section 4.3.

Financial Investments

Once commercial banks mobilize savings, these funds are then transferred to the real sectors through either loans or financial investments in instruments such as government bonds and notes, corporate bonds and notes, and other forms of securities and stocks. If commercial banks use greater proportions of their funds to make such financial investments, then fewer resources will be available for the issuance of loans. Table 7 highlights the indicators of commercial banks' performance in investment in such financial instruments. However, cross-country comparisons of the financial investments to GDP ratio, the average share of total financial investments and the financial investments to total assets ratio shows that it is very difficult to distinguish between the performances of commercial banks in the respective countries, as most of the paired averages are not statistically different at the 5% level. Notwithstanding this, a comparison of the corresponding ratios in Tables 6 and 7 give a useful indication of where the commercial banks in each country have placed their emphasis in the transferral of resources to the real sector. For example, whilst commercial banks in Belize, Barbados, Trinidad and Tobago and Guyana have maintained the traditional emphasis on loan issuance (as exhibited by loans to GDP ratios which are much higher than financial investments to GDP

ratios), Jamaican commercial banks seem to be increasingly focusing on financial investments as a means of intermediating between savers and investors, as their loans to GDP ratio (21.94%) is not much higher than their financial investments to GDP ratio (15.09%).²³ The growth of this ratio also seems to confirm this position, as the Jamaican commercial banks' average annual growth of the financial investments to GDP ratio (6.84%) is only exceeded by that of the Trinidadian banks (9.11%).

In fact, a comparison of the average annual growth of the loans to GDP ratio with the financial investments to GDP ratio shows that the countries with the largest average annual rate of decline in the loans to GDP ratio – Jamaica and Trinidad and Tobago - had the largest average annual rate of growth in the financial investments to GDP ratio. This trend is also evident when the average annual growth of real loans is compared with the average annual growth of financial investments, and when the average annual growth of the loans to total assets ratios are compared with the financial investments to total assets ratios. The countries with the highest growth rates in the financial investment indicators are consistently Jamaica and Trinidad and Tobago, suggesting that both of these countries are focusing more on transferring funds to the real sector through financial investment, while Barbados, Belize and Guyana maintain their traditional emphasis on intermediation through loan issuance.

Reference to Table 3 provides a possible explanation for this distinction among the countries, as Jamaica and Trinidad and Tobago, the countries in which commercial banks are increasing their emphasis on financial investments, are also the countries in which near banks have at least 25% shares of total financial assets. This is important as near banks (such as merchant banks, finance houses and investment companies) attract more sophisticated clientele who would tend to require financial investment products instead of loans. Nehls and Schmidt (2003) describe the phenomenon of disintermediation wherein firms attract more capital directly from the financial markets and rely less on bank loans as a source of funds. In such a competitive environment commercial banks would have to also offer such financial investment products so as to sustain their market share. Additionally, in Jamaica, the relatively high Treasury bill rates, along with the preponderance of government instruments issued during the restructuring of the sector in the post-crisis era, made financial investments relatively more attractive.

Interest Rate Spreads

The explanation given above for the relatively poor performance of Jamaican and Trinidadian commercial banks in transferring funds to the

real sector through loans must be supplemented by a more direct examination of the efficiency of the banks' intermediation between savers and borrowers. This is typically achieved in the literature by an examination of the interest rate spreads of the respective institutions. The average interest rate spreads for commercial banks in each country over the review period are presented in Table 8. The figures indicate that the spreads in Barbados, Belize, Guyana and Trinidad and Tobago (7.02%, 8.87%, 8.61% and 7.52%, respectively) are very similar, and are often not statistically different. The average interest rate spread for Jamaican commercial banks is, however, significantly larger (23.73%). This clearly indicates that Jamaica's low loans to GDP and loans to total assets ratios, and the relatively high rates of decline in these ratios, are not simply due to the commercial banks' placing more emphasis on financial investments, but are also caused by more fundamental inefficiencies in the intermediation process in this country.

In a recent study Tennant (2006) notes that most financial institution managers in Jamaica strongly argue that the spreads being applied are justified by current economic and social conditions. The cross-country comparison of macroeconomic indicators in Table 1 provides some evidence for this view, as Jamaica had the highest average Treasury Bill rate, amongst the highest levels of inflation and exchange rate volatility, and the second highest public sector debt to GDP ratio. Jamaica's recent financial sector crisis and below average performance in maintaining political stability and reducing political violence could also be used as justifications for maintaining wider interest rate spreads. It must, however, be noted that Guyanese banks also faced macroeconomic, social and political instability, but were able to sustain significantly lower interest rate spreads. This has consequently led to the insistence by a few Jamaican financial institution managers, along with the regulators and policy-advisors, that the spreads are being fuelled by inefficiency and greed within Jamaican commercial banks. This is clearly an area where further comparative studies of the banks in the region, along with the environments within which they operate, would yield valuable results, and should highlight best practices for both managers and policymakers in their efforts to improve the efficiency of intermediation between savers and borrowers.

Allocation of Loans

Effective financial intermediation is not only dependent on strong performances in mobilizing savings and transferring these funds to the real sectors, but it is also critically dependent on the efficiency with which commercial banks allocate resources to their most productive uses. This

study attempted to examine the allocation of both loans and financial investments in each of the countries being investigated; however, a dearth of data on the allocation of financial investments in most countries precluded the latter. This section therefore compares commercial banks' allocation of loans across countries. It must be noted though that an examination of the distribution of financial investments by banks in the region is a matter for urgent future attention.

As in Barnes and Stewart (1996) and Odle (1998) this paper makes use of the available data on the distribution of commercial banks' loans by sector, and makes the assumption that the productivity of any sector can be determined by examining that sector's share of real GDP in the national accounts. Commercial banks' performance in allocating loans is therefore assessed for each country by comparing each sector's share of GDP over the review period with the proportion of loans allocated to those sectors by the commercial banks.

Barbados performed well over the review period in the allocation of credit to the sectors with the highest shares of GDP. 'Distribution', 'Other Services, Personal and Miscellaneous', and 'Tourism, Entertainment and Catering' were the sectors with the largest shares of GDP (19.58%, 17.24% and 14.57%, respectively), and they also were allocated the largest shares of Barbadian commercial banks' loans (15.46%, 44.29% and 10.74%, respectively).²⁴ 'Public Utilities' and 'Mining and Quarrying' were the sectors to which commercial banks in Barbados allocated the least amount of loans over the review period (2.42% and 0.15%, respectively), which coincides with the fact that they were amongst the smallest contributors to GDP (3.42% and 0.79%, respectively). The only area in which Barbadian commercial banks were clearly not guided by a sector's history of being productive in its allocation of resources is with respect to their allocation of 4.54% of total loans to financial institutions, which had a 0.0% share of real GDP. Self-interest and lending within financial sector conglomerates may have been the dominant factors determining the allocation of loans in this instance.

Belize was not as consistent as Barbados in its performance in allocating loans to the sectors with the largest shares of GDP. Of the three sectors which received the largest shares of Belizean commercial banks' loans over the review period ('Trade, Tourism, Restaurants and Hotels' – 27.68%, 'Construction' – 19.88%, and 'Personal, Commerce and Other Services' – 18.39%), only one ('Trade, Tourism, Restaurants and Hotels') was amongst the sectors with the five largest shares of GDP. This, however, is somewhat offset by the fact that the five sectors with the smallest shares of GDP in the Belizean economy ('Finance and Insurance',

‘Fishing’, ‘Forestry and Logging’, ‘Electricity and Water’, and ‘Mining’), were also allocated the smallest shares of commercial banks’ total loans (with shares ranging from 0.32% to 1.08%).

In Guyana commercial banks allocated their largest share of total loans (32.61%) to the sector classified as ‘Other’ (comprised mainly of loans to the ‘Personal’ sector), which contributed the smallest share to the country’s GDP (5.25%). To their credit though, the sector with the second largest share of total loans (26.73%) – Manufacturing – also had the third largest share of GDP (11.99%), and the sectors to which they allocated the smallest proportions of total loans (‘Drainage, Irrigation and Other Construction’ and ‘Financial Services’ – 0.22% and 0.47%, respectively), were amongst the three smallest contributors to GDP.

The performance of Jamaican commercial banks in allocating credit is similar to that of Guyanese banks, in that the sector with the smallest share of GDP in Jamaica – ‘Personal, Professional and Other Services’ (0.60%), received the largest share of commercial banks’ loans (25.63%). Also, while the sector with the third smallest share of real GDP (‘Government Services’) received a considerable 12.38% of total loans, the sector with the largest share of GDP (‘Distribution’) only received 5.92% of total loans. However, on the positive side, the second and third largest contributors to GDP (‘Manufacturing’ and ‘Construction and Land Development’), received the second and third largest shares of commercial banks’ total loans (13.42% and 13.18%, respectively).²⁵

Upon initial inspection of the figures from Trinidad, the performance of their banks in allocating loans to the sectors with the largest shares of GDP seems to be the least impressive, as the sector with the third smallest share of GDP (‘Personal Services, Consumption, Leasing and Real Estate Mortgages’) received the largest share of bank loans (42.99%), whilst the sector with the largest share of GDP (‘Petroleum’) received the smallest share of total loans (1.34%). This is, however, easily explained when one considers the importance of the petroleum sector to the Trinidadian economy, and the fact that whilst this sector has the largest share of GDP, it does not require much domestic financing because of the foreign direct investment which it attracts. It must be noted though that other sectors important to the country’s economic performance, such as ‘Distribution’ and ‘Transportation, Storage and Communication’ (with the third and fourth largest shares of GDP), only received 9.81% and 2.65% of total commercial bank loans, respectively.

The first two columns of Table 5 allow for a more concise cross-country comparison of the performance of commercial banks in the allocation of loans, as it highlights for each country, the share of total loans

distributed by commercial banks to the three sectors with the largest shares of GDP versus the three sectors with the smallest shares of GDP. The performance in credit allocation is therefore assessed by the degree to which more loans were distributed to the former and less to the latter. For completeness, the last two columns in this table present figures which allow for a cross-country comparison of the allocation of loans based on the growth performance of the sectors. Here it is acknowledged that in allocating credit, commercial banks can also opt to consider the growth of the sector under consideration as an indicator of that sector to be productive in the future. To assess whether banks are indeed allocating credit based on the growth performance of the sectors, for each country, the growth in production of each sector was used to determine the three sectors that had the fastest growth in production and the three with the slowest growth. The real growth of loans given to these sectors by commercial bank was then calculated, and performance in credit allocation is assessed by the extent to which real loans to the three fastest growing sectors are increasing, and are decreasing for the slowest growing sectors.

The results of the analysis considering the sector's share of GDP show that Barbados (with 70.49% of loans to the largest sectors and 7.11% to the smallest sectors) and Belize (with 48.13% and 2.27% of total loans to the largest and smallest sectors, respectively) were clearly the outstanding performers in the allocation of credit to the sectors with largest shares of GDP. Because there was no statistical difference at the 5% level between the means for Guyana (with 40.20% and 33.29% of total loans to the largest and smallest sectors, respectively) and Jamaica (with corresponding figures of 32.52% and 38.78%), it was impossible to distinguish between their performances.²⁶ It was, however, evident that they did not perform as well as Barbados and Belize.²⁷ When the sectors' growth in production is considered, the countries' ranking in terms of the relative performance of their commercial banks remains the same. Barbados (with average annual growth of real loans to the fastest and slowest growing sectors of 3.06% and -0.21%, respectively) and Belize (with corresponding figures of 10.37% and 8.74%) are still better performers than Guyana (-5.41% and 2.52%) and Jamaica (-1.74% and 1.66%). As noted previously, it is difficult to accurately include the Trinidadian figures in this comparison because of their unique dependence on the largely foreign-funded petroleum industry.

Despite this attempt to clearly distinguish between the performances of commercial banks in different countries, it must be noted that there is a glaring similarity in the manner in which banks in all the countries studied allocate credit. With the exception of Belize, in all countries banks allocate

the largest proportion of their total loans to the personal sector. In Belize, loans to this sector represent the third largest share of total loans. This is not a surprising result, as Barnes and Stewart (1996) made a similar observation for Jamaica, and interpreted the increase in loans to the personal sector as an allocation of loans to the consumption sector at the expense of the productive sectors. Whilst such an interpretation seems to be correct in the Jamaican context, where the 'Personal, Professional and Other Services' sector has the smallest share of GDP, and may even be extended to Guyana and Trinidad and Tobago, where the corresponding sector makes very small contributions to GDP, it is difficult to classify loans to this sector as being unproductive in countries like Barbados and Belize, where their 'Personal and Other Services' sectors have shares of GDP of 17.24% and 7.17%, respectively. In fact, Barbados' and Belize's aforementioned superior performance in allocating credit to the most productive sectors is less likely to be due to any major differences in how credit is allocated by commercial banks, but may be predominantly due to the fact that the personal sectors in these countries are considerably more productive than in the others. Therefore, in trying to derive best practices from this cross-country comparison of the allocation of credit, attention must be placed on the characteristics of the Barbadian and Belizean personal sectors that enabled them to be so productive. The figures seem to suggest that it cannot always be assumed that loans allocated by commercial banks to the personal sector are being used simply for household consumption. The productiveness of the personal sectors in Barbados and Belize imply that further investigation needs to be conducted on how loans to the personal sector are being spent, and whether they are being used to support small-scale production in micro-businesses and cottage industries.

V. CONCLUSIONS

Declining foreign aid flows to the Caribbean has intensified the search for regional and national means of financing development. This paper argues that the region's commercial banks are important to this process, as, if they maintain high standards of performance, banks can maximize the mobilization of domestic funds, maintain efficiency in the transferral of savings to the real sector, minimize financial costs and interest rate spreads, and efficiently allocate funds to growth-enhancing investments. A cross-country comparison of the performance of commercial banks in five Caribbean countries has been conducted so as to highlight areas in which commercial banks in some countries have exhibited relatively higher standards of performance in these basic but

fundamental tenets of financial intermediation. The sources of heterogeneity across countries are also examined to highlight possible explanations for the differentials in commercial bank performance.

In the mobilization of savings, Barbadian commercial banks distinguished themselves, as they achieved one of the highest volume of savings mobilized relative to GDP, maintained the highest standard of efficiency with the largest deposit to total assets ratio, and made great strides in increasing their rate of savings mobilization, having sustained some of the highest growth rates in these figures. Belizean commercial banks were also consistently strong performers in the mobilization of savings. Guyanese banks, however, exhibited mixed performances in this respect, as while they mobilized a high volume of savings relative to GDP and established high standards of efficiency with one of the highest deposits to total assets ratios, they were not able to inspire confidence in their ability to maintain these standards, due to their below average growth rates. At the other extreme, Jamaican and Trinidadian commercial banks consistently did not perform as well as their counterparts in the other countries.

A comparison of the savings mobilization indicators with the macroeconomic, social and political realities of the respective countries indicated that the countries wherein the commercial banks performed best in savings mobilization, were also the countries with relatively high income levels, low and stable rates of inflation, relatively strong and stable domestic currencies, and relatively stable political and social environments. By contrast, poor performance in this area seemed to be related to macroeconomic and financial instability. Trinidad's poor performance in this respect, however, defies such simple explanations. Further research is therefore necessary to determine whether the quantum of foreign direct investment involved in the petroleum industry in this country has an effect on domestic savings. Heightened competition from near banks for deposits in the Trinidadian financial sector could also account for the commercial banks' relatively poor performance in mobilizing savings. However, if this is so, further investigations should be launched to ascertain why the Trinidadian banks' deposits to assets ratios remain relatively low in spite of such competition.

Belizean and Barbadian banks also distinguished themselves in the efficient transferral of funds to the real sectors in the form of loans. In this instance, Belizean banks were the strongest performers, with the largest loans to total assets ratio, the highest growth in this ratio, and the highest average annual growth of real loans. By contrast, Jamaican banks were the weakest performers, with the smallest loans to GDP and loans to total

assets ratios. Jamaican and Trinidadian banks also had negative rates of growth for all the loan issuance indicators. These negative growth rates are, however, partially explained by Jamaican and Trinidadian banks' relatively high growth rates in the financial investment indicators, suggesting that both of these countries are focusing more on transferring funds to the real sector through financial investments, while Barbados, Belize and Guyana maintain their traditional emphasis on intermediation through loan issuance. This distinction may be explained by the impetus provided by competition from sophisticated near banks in Jamaica and Trinidad and Tobago, which seem to be facilitating disintermediation, wherein firms attract more capital directly from the financial markets and rely less on bank loans as a source of funds. This has important implications for studies which seek to assess financial intermediation in Caribbean countries, as it indicates that such studies can no longer focus solely on saving and borrowing in the traditional sense, as commercial bank operations in some countries are becoming increasingly sophisticated with investments in diverse financial instruments.

Such sophistication is, however, not an excuse for inefficiency in the most basic aspects of intermediation. This was evident in Jamaica, as indicated by commercial bank interest rate spreads approximately three times larger than those of the other countries. This strongly suggests that Jamaica's low loans to GDP and loans to total assets ratios, and the relatively high rates of decline in these ratios, are not simply due to the commercial banks' placing more emphasis on financial investments, but may also be caused by more fundamental inefficiencies in the intermediation process in this country. Possible explanations for the huge difference between the Jamaican spreads and those of the other countries include macroeconomic and political instability, and the country's recent experience with a financial sector crisis. The fact that Guyanese banks were able to maintain much lower spreads while also facing some similar conditions, however, suggests that Jamaican bank managers and policymakers could benefit from dialogue with their counterparts in the region to develop a shared approach towards achieving improved operational efficiency in the intermediation process.

The cross-country comparison of the allocation of resources by banks showed that there is a clear predisposition for banks in all the countries studied to allocate large proportions of their loan portfolios to the personal sector. Notwithstanding this, there were significant differences in the relative performances of the banks in allocating credit to the most productive sectors, with Barbados and Belize again being the outstanding performers. This is largely due to the fact that the personal sectors in these

countries are considerably more productive than in Guyana, Jamaica and Trinidad and Tobago. Further investigation therefore needs to be conducted on how loans to the personal sectors in Barbados and Belize are being utilized. The productiveness of the personal sectors in these countries suggests that bank loans to households are possibly being used to support small-scale production in micro-businesses and cottage industries. If this is the case, and if Caribbean commercial banks' allocation of loans to the personal sector proves to be intractable, then the governments in the region, rather than trying to direct credit to other sectors, would probably be better served by making attempts to enhance the productivity of their personal sectors, through enabling small and micro-enterprise development.

Strengthening economic relationships and increasing institutional cooperation in the Caribbean are critical to the financing of development in the region. Progress will only be made in these areas when policymakers and managers from different countries in the region begin to learn from each other's experiences. By comparing the performance of commercial banks across five Caribbean countries in the basic tenets of financial intermediation, this paper has highlighted the consistently high standards of performance established by commercial banks in Barbados and Belize. It was also shown that these countries had relatively high levels of per capita income, low and stable rates of inflation, low Treasury bill rates, low and stable exchange rates and low debt burdens. They also had the lowest incidence of social and political instability. Without making any conclusions as to causality, this paper highlights the intricate relationship that exists between the real and financial sectors of the economy, as the countries in which commercial banks were making the greatest contribution to the economy, were also the ones which had the strongest economic, social and political fundamentals.

APPENDIX-TABLES USED IN THE ANALYSES

Table 1 - Selected Macroeconomic Indicators (1986-2002)

Indicator	Country				
	Barbados	Belize	Guyana	Jamaica	T & T
Real Per Capita GDP (US\$)	1,685.81	1,551.53	158.97	509.39	2,735.50
Economic Growth (%)*	0.96	5.76	2.46	2.29	1.72
Inflation Rate (%)	2.93 ^a	2.00 ^a	27.54 ^b	20.29 ^b	6.66
Inflation Rate Volatility	2.25 ^{cd}	1.51 ^{ce}	15.00 ^f	11.25 ^f	2.21 ^{de}
US\$ Nominal Exchange Rate	2.00 ^g	2.00 ^g	115.41	26.27	5.45
US\$ Real Exchange Rate	2.09	1.95	136.96	57.66	6.42
Exchange Rate Volatility	2.24 ^h	2.00 ^h	26.41 ⁱ	20.95 ⁱ	7.17
Comparative 91-Day T-Bill Rates (%)	5.97 ^j	6.10 ^{jk}	15.13	25.76	8.18 ^k
Total Public Sector Debt/GDP (%)	72.23	45.39 ^l	458.86	115.37	46.56 ^l
<i>Domestic Public Sector</i> Debt/GDP (%)	46.72 ^{mn}		86.76 ^{mo}	43.28 ^{no}	19.20
<i>External Public Sector</i> Debt/GDP (%)	25.51 ^p	45.39	372.10	72.09	27.36 ^p
<i>Central Govt Fiscal</i> Balance/GDP (%)	-3.41 ^{qrs}	-2.91 ^{qt}	-17.32	-1.72 ^{rtu}	-1.04 ^{su}

Unless otherwise noted, all pairs of averages are statistically different at the 0.05 level.

a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u Paired averages not statistically different at the 0.05 level.

* Calculated using geometric means thus precluding the statistical testing of difference of means.

Sources: All Tables were computed by the author from data in: Bank of Jamaica Statistical Digest, Central Bank of Trinidad and Tobago Statistical Digest, Trinidad and Tobago Annual Statistical Digest, Central Bank of Barbados Economic and Financial Statistics, Central Bank of Barbados Annual Statistical Digest, Central Bank of Belize Statistical Digest, Bank of Guyana Statistical Bulletin, International Financial Statistics.

Table 2 - Sectoral Composition of Real Output (Top Five Sectors 1986-2002)

Barbados		Belize		Guyana		Jamaica		Trinidad & Tobago	
Sectors	% GDP	Sectors	% GDP	Sectors	% GDP	Sectors	% GDP	Sectors	% GDP
Distribution (Whole & Retail Trade)	19.58	Trade & Tourism ¹	17.49	Agriculture, Forestry & Fishing	28.03	Distribution	19.36	Petroleum	24.82
Other Services, Personal & Misc.	17.24	Manufacturing	16.40	Government	14.98	Manufacturing	17.43	Public Sector	15.04
Tourism, Entertain. & Catering	14.57	Agriculture	13.91	Manufacturing	11.99	Construction & Land Development	16.95	Distribution	11.17
Govt & Stat. Bodies	13.34	Transport & Communications	12.81	Mining & Quarry.	10.68	Transport, Storage & Commerce	11.66	Transport, Storage & Commerce	10.62
Manufacturing	9.65	Public Admin	8.05	Transport & Communications	8.21	Financial Institutions	11.46	Financing, Ins. & Real Estate	9.53

¹ Including Restaurants & Hotels

Table 3 – Market Share of Types of Financial Institutions as at 1999

Type of FI	Share of Total Financial Assets (%)				
	Barbados	Belize	Guyana	Jamaica	T & T
Commercial Banks	62.00	74.00	71.00	65.00	46.00
Near Banks	8.00	n.a.	21.00	28.00	25.00
Development Banks	-	8.00	n.a.	5.00	1.00
Credit Unions	5.00	12.00	8.00	2.00	5.00
Insurance Companies	11.00	5.00	n.a.	n.a.	15.00
Social Security	15.00	n.a.	9.00	n.a.	8.00

Source: Extracted from Worrell et al (2001:9)

Table 4 - Selected Demographic Indicators

Indicators	Country				
	Barbados	Belize	Guyana	Jamaica	T & T
Population (mn) (1986-2002)	0.26	0.21	0.76	2.47	1.25
Average Annual Population Growth Rate (%) (1975-2003)	0.30	2.40	0.10	1.00	0.90
Projected Annual Population Growth Rate (%) (2003-2015)	0.20	1.80	-0.10	0.40	0.30

Sources: Extracted from Human Development Report (2005)

Table 5 - Indicators of Commercial Banks' Performance in Savings Mobilization (1986-2002)

Indicators	Country (%)				
	Barbados	Belize	Guyana	Jamaica	T & T
Deposits/Current GDP	75.30 ^a	54.69	83.87 ^a	42.91	40.19
Average Annual Growth of Deposits/Current GDP	4.49	2.46	-1.59	0.30	-0.80
Average Annual Growth of Real Deposits*	5.69	8.21	0.83	2.31	1.80
Average Share of Total Deposits	83.71 ^b	n.a.	86.76 ^b	69.46	78.35
Deposits as a % of Total Assets	82.27	78.96 ^c	77.84 ^c	69.85	64.16
Average Annual Growth of Deposits/Total Assets*	0.26	0.05	0.86	-0.58	-1.77

Unless otherwise noted, all pairs of averages are statistically different at the 0.05 level

a, b, c Paired averages not statistically different at the 0.05 level

* Calculated using geometric means thus precluding the statistical testing of difference of means

Table 6 - Indicators of Commercial Banks' Performance in Loan Issuance (1986-2002)

Indicators	Country (%)				
	Barbados	Belize	Guyana	Jamaica	T & T
Loans/Current GDP	48.85	46.09 ^a	40.31 ^a	21.94	32.12
Average Annual Growth of Loans/Current GDP	3.33	3.24	-1.65	-2.03	-2.61
Average Annual Growth of Real Loans*	4.01	9.03	0.77	-0.07	-0.06
Average Share of Total Loans	73.66	n.a.	85.98	66.94 ^b	70.68 ^b
Loans as a % of Total Assets	53.63 ^c	66.25	37.08 ^d	36.22 ^d	51.64 ^c
Average Annual Growth of Loans/Total Assets*	-1.34	0.81	0.80	-2.89	-3.57

Unless otherwise noted, all pairs of averages are statistically different at the 0.05 level

^{a, b, c, d} Paired averages not statistically different at the 0.05 level

* Calculated using geometric means thus precluding the statistical testing of difference of means

Table 7 - Indicators of Commercial Banks' Performance in Investments in Financial Instruments (1986-2002)

Indicators	Country (%)				
	Barbados	Belize	Guyana	Jamaica ¹	T & T
Financial Investments/Current GDP	19.40 ^a	6.52 ^b	24.34 ^{ad}	15.09 ^{cd}	9.17 ^{bc}
Average Annual Growth of Financial Investments /Current GDP	4.07	-1.94	-6.07	6.84	9.11
Average Annual Growth of Real Financial Investments *	5.10	3.56	-3.76	8.53	11.97
Average Share of Total Financial Investments	97.44 ^e	n.a.	72.43 ^{fg}	73.74 ^{efh2}	65.96 ^{gh}
Financial Investments as a % of Total Assets	21.12 ^{ij}	9.65 ^l	23.39 ^{ikn}	23.40 ^{ikm}	14.09 ^{lmn}
Average Annual Growth of Financial Investments /Total Assets*	-0.30	-4.25	-3.73	6.49	8.04

Unless otherwise noted, all pairs of averages are statistically different at the 0.05 level

^{a, b, c, d, e, f, g, h, l, j, k, l, m, n} Paired averages not statistically different at the 0.05 level

* Calculated using geometric means thus precluding the statistical testing of difference of means

¹ Avg. 1988-2002 ² Avg. 1999-2002

Table 8 – Commercial Banks' Interest Rate Spread (1986-2002)

Country	Average Interest Rate Spread (%)
Barbados	7.52 ^{ac}
Belize	7.02 ^a
Guyana (1988-2002)	8.87 ^b
Jamaica	8.61 ^{bc}
Trinidad & Tobago	23.73

Unless otherwise noted, all pairs of averages are statistically different at the 0.05 level

^{a, b, c} Paired averages not statistically different at the 0.05 level

Table 9 – Indicators of Commercial Banks' Performance in the Allocation of Loans: Share of Total Loans and Growth of Real Loans 1986-2002

	Largest Sectors	Smallest Sectors	Fastest Sectors	Slowest Sectors
Barbados	70.49	7.11	3.06	-0.21
Belize	48.13	2.27	10.37	8.74
Guyana	40.20 ^a	33.29 ^b	-5.41	2.52
Jamaica	32.52 ^a	38.78 ^b	-1.74	1.66
Trinidad & Tobago	22.92	44.19	5.24	-1.30

Unless otherwise noted, all pairs of averages are statistically different at the 0.05 level

a, b Paired averages not statistically different at the 0.05 level

* Calculated using geometric means thus precluding the statistical testing of difference of means

NOTES

- ¹ Low returns on deposits discourages savers and thus limits financing for potential borrowers, while the high cost of loanable funds presents an obstacle to productive investments (Ndung'u and Ngugi 2000 and Barnes and Stewart 1996)
- ² As quoted by Beck et al (2000:1)
- ³ Williamson and Mahar (1998:49) cite studies such as those by Greenwood and Jovanovic (1989), Bencivenga and Smith (1991), Levine (1992), and Saint-Paul (1992). Greenwood and Jovanovic (1990) assert that financial intermediaries can invest more productively than individuals because of their better ability to identify investment opportunities.
- ⁴ For a more thorough analysis of the impact of financial crisis on intermediation in Jamaica see Tennant and Kirton (2006).
- ⁵ Ramkissoo (2002:14)
- ⁶ Inflation rate volatility in any given year is measured as the standard deviation of the inflation rate for the previous three years.
- ⁷ Exchange rate volatility in any given year is measured as the standard deviation of the change in the real exchange rate for the previous three years.
- ⁸ This study does not focus on the Barbadian offshore financial sector. This is because, as noted by the IMF (2003:6), Barbadian offshore banks, 'are, to a large extent, insulated from the domestic banking system and their deposit taking activities are highly circumscribed, thereby limiting their potential to destabilize the domestic financial system.'
- ⁹ Worrell et al (2001:17-18)
- ¹⁰ Worrell et al (2001:19) and IMF (1999:8)
- ¹¹ Worrell et al (2001:4&21)
- ¹² Hilaire (2001:5)
- ¹³ Financial investments refer to the purchase of various types of securities, including government bonds and notes, corporate bonds and notes, and shares traded on the stock exchange. It should not be confused with the economic meaning of investments, defined as, 'the purchase of real capital assets, such as new buildings and equipment' (Rose and Kolari, 1995).
- ¹⁴ It must be acknowledged that deposits are not the only way through which savings are mobilized by commercial banks, however, a dearth of data on other savings products offered by Caribbean commercial banks precluded the consideration of a broader conceptualization of savings mobilization.
- ¹⁵ This is supported by the fact that after 1995 Barbados overtook Guyana as having the highest deposit to GDP ratio.
- ¹⁶ A comparison of the structure of the financial sectors in Barbados and Trinidad and Tobago illustrates this point, as in Barbados commercial banks account for 62% of total financial assets and other deposit taking institutions only account for 8% of total financial assets, while in Trinidad the distribution of assets is much more even, with commercial banks and other deposit taking institutions accounting for 46% and 25% of total assets, respectively.
- ¹⁷ In the pre-liberalization period (1986-1991) the deposit to total assets ratio for Trinidad and Tobago (72.54%) was marginally larger than that of Jamaica (70.42%), but during the

subsequent periods the Jamaican averages were consistently higher than those of Trinidad and Tobago. The ratios for both countries were nonetheless significantly smaller than those of the other countries.

¹⁸ Gavin et al (1997)

¹⁹ It is interesting to note that Belizean banks are able to maintain such a relatively high loans to GDP ratio in spite of the fact that their deposit to GDP ratio was only 54.69%. With the exception of Trinidad and Tobago, the differences between the loans to GDP ratio and deposit to GDP ratio for all the other countries was much larger, suggesting possibly the holding of excess liquidity or excess reserves by commercial banks, or, alternatively, high costs of intermediating between savers and borrowers.

²⁰ For Trinidad and Tobago the effect of this decline is highlighted by a review of the averages for the sub-periods, as, at the beginning of the review period (1986-1991) their loans to GDP ratio (39.36%) was marginally larger than that of Belize (39.34%). However, by 1998-2002 the average for Trinidad and Tobago had declined to 27.60%, while that of Belize increased to 56.36%.

²¹ Between 1992 and 1994 Guyana had a very large decline in the loans to GDP ratio, falling from an average of 42.32% in the period 1986-1991 to 22.57% in 1992-1994. The ratio gradually increased in each of the subsequent sub-periods.

²² In Trinidad and Tobago, in the immediate post-liberalization period (1992-1994) there was a significant decline in the share of total loans held by commercial banks, reflecting the spread of nonbank financial institutions in the country. In subsequent sub-periods the dominance of commercial banks has, however, gradually returned to its pre-liberalization level. Notwithstanding this, the dominance of commercial banks in both Trinidad and Tobago and Jamaica for all sub-periods is substantially less than in the other countries.

²³ For Jamaica this distinction is more clearly seen when the averages for the crisis and post-crisis sub-periods are examined, as although the loans to GDP ratio exceeded the financial investments to GDP ratio in all periods before and during the crisis, there was a drastic reversal of this trend in the immediate post-crisis period, as the loans to GDP ratio decreased from an average of 23.25% in 1995-1997 to 14.98% in 1998-2002, while the financial investments to GDP ratio increased from 10.04% to 29.43%. This is an example of the impact of the crisis in Jamaica, reflecting the credit crunch and banks' preference for low-risk, high-return Treasury bills in the post-crisis period. Not surprisingly, this trend is not evident in any of the other countries.

²⁴ These averages conceal a slight change in the allocation of loans by Barbadian commercial banks, as beginning in the 1998-2002 sub-period 'Tourism, Entertainment and Catering' was allocated a greater percentage of loans (12.51%) than 'Distribution' (10.40%).

²⁵ It must be noted though that the shares of loans allocated to the 'Manufacturing' and 'Construction and Land Development' sectors have steadily declined in each of the sub-periods examined, ranging from averages of 19.32% and 20.76%, respectively, in 1986-1991 to 7.13% and 5.14%, respectively, in 1998-2002. The share of loans to the 'Distribution' sector has, however, been increasing, ranging from 3.69% in 1986-1991 to 7.5% in 1998-2002.

²⁶ Although not affecting the overall ranking of the countries' performances, it should be noted that the impact of the crisis in Jamaica is reflected when the averages for the sub-periods are calculated, as there is a decline in the share of loans allocated to the largest three sectors in the crisis and post-crisis periods, falling from an average of 35.14% in 1992-1994 to 28.58% in 1995-1997 and 19.80% in 1998-2002.

- ²⁷ The averages conceal the fact that although Belizean banks maintained better performances than Guyanese banks in most sub-periods, their allocation of loans to the largest three sectors was declining, while Guyana's figures were increasing. By 1998-2002 the Guyanese average (45.88%) surpassed that of Belize (39.23%). Notwithstanding this, the overall performance of the Belizean banks was better, as they allocated a larger proportion of loans to the top three sectors in three out of the four sub-periods examined.

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