

Financial Stability Report
2011

CENTRAL BANK OF BARBADOS

Financial Stability Report 2011

Table of Contents

Abbreviations

Abbreviation	*Meaning*
BCCI	Bank of Credit and Commerce International
BCGS	Banking Committee on Banking Supervision
BDIC	Barbados Deposit Insurance Corporation
BL&P	Barbados Light and Power Holdings
BNB	Barbados National Bank
BSE	Barbados Stock Exchange
CARICOM	Caribbean Community
CAR	Capital Adequacy Ratio
CBB	Central Bank of Barbados
CGBS	Caribbean Group of Banking Supervisors
CIBC	Canadian Imperial Bank of Commerce
CLICO	Colonial Life Insurance Company Ltd
FIA	Financial Institutions Act
FSAP	Financial Sector Assessment Programme
FSC	Financial Services Commission
FSI	Financial Stability Indicator
FSSA	Financial Sector Stability Assessment
GDP	Gross Domestic Product
IAIS	International Association of Insurance Supervisors
IBFS	International Business and Financial Services
IFSA	International Financial Services Act
IMF	International Monetary Fund
JSE	Jamaican Stock Exchange
LGD	Loss Given Default
MFA	Mutual Funds Act
NIS	National Insurance Scheme
NPL	Non-performing Loan
NYSE	New York Stock Exchange
OSFI	Office of the Superintendent of Financial Institutions
ROA	Return on Assets
ROE	Return on Equity
RWA	Risk-weighted Assets
SA	Securities Act
S&P	Standard & Poor's
TTSE	Trinidad and Tobago Stock Exchange
USA/US	United States of America
VAR	Value at Risk

Preface

This is the first issue of the Central Bank of Barbados' *Financial Stability Report*, produced in collaboration with the Financial Services Commission (FSC). The Central Bank and the FSC are jointly responsible for the continuous oversight of the financial system, to assess vulnerabilities and to initiate policies to increase the resilience of the system in the face of possible adverse events. The Central Bank's Financial Stability Unit works with the FSC's staff to ensure that the assessment of risk exposures covers the activities of banks, international banks, insurance companies, international insurance and reinsurance companies, nonbank deposit taking financial institutions, credit unions, the activities of the Barbados Securities Exchange and issues and redemptions of government securities. This report analyses a range of financial stability indicators for banks and other financial institutions, as well as balance sheet and income and expenditure trends. For the banking system, financial forecasts are used to project a baseline of expectations for capital adequacy and the quality of credit. Stress tests are applied to the baseline, progressively increasing the pressure until capital adequacy falls below the eight percent minimum which the Central Bank stipulates. Progressive stress tests are also used to test for possible contagion among banks, and from banks' exposures to financial institutions abroad.

This *FSR* will appear in December each year, and will, like most of the Central Bank's publications, be published exclusively online. In June of each year the Central Bank will publish an update on the December *FSR*.

Financial Stability Report 2011[1]

Executive Summary

The fallout of the weak global and domestic macroeconomic environments was a worsening of credit quality in the Barbadian banking system. In spite of this, the financial system remained robust by all the prudential measures evaluated in this report.

Commercial banks recorded higher non-performing loans (NPLs) in 2010, mainly a reflection of a few substandard loans held by hotels. There was no further deterioration in 2011. Furthermore, banks remained highly liquid, well-capitalised and profitable, even though profitability fell below pre-crisis levels. The strength of the banks was confirmed by stress tests of their credit portfolios. The results of these tests indicate that it would require a considerable negative shock to economic activity (estimated to be a decline of about 15% in real GDP) or a 80% increase of NPLs (with 100% provisioning against losses) for the least well capitalised bank capital to fall below the minimum 8% statutory requirement. Moreover, when stress tests of the potential for contagion effects among local banks were conducted (by assuming the default of each bank's three largest exposures) no bank's capital fell below the 8% minimum.

Loan defaults at credit unions rose, but at a slower rate than for banks. Some smaller credit unions have problem loan portfolios substantially in excess of prudential norms but these are all too small to pose systemic risk to the overall sector. Insurance companies recorded lower premiums and reduced investment income, reflecting reduced demand for insurance and the difficulties experienced by policy holders in making payments. According to available data up to 2010, the general insurance segment of the industry experienced improved liquidity and solvency, whereas the life insurance subsector recorded falling profits, but a stronger degree of solvency. The failed Barbados subsidiary of the Trinidad-Tobago financial conglomerate CL Financial has been placed under judicial management, and the court has approved plans for the restructuring and sale of the company.

[1] The authors of the 2011 FSR are Anton Belgrave, Darrin Downes, Kester Guy, Peter Grosvenor and Shane Lowe.

1. Financial Stability Overview

Continuing uncertainty about the prospects for a recovery in the global economy contributed to a lower demand for loans from banks by firms and households, and to a significant slowdown in the growth of domestic deposits. Although asset quality has declined, banks have been resilient over the period of the crisis. Capital adequacy levels have been above the statutory requirements, and banks have remained profitable, although less so than prior to the recession. Credit unions have also faced a slowdown in loan demand and higher non-performing loans, though their ratio is not as high as for banks. Financial institutions operating locally, both banks and insurance companies, are strongly linked with regional and international financial markets. The banks are well insulated from potential loss exposure due to their external asset/liability positions, but both banks and insurance companies are still exposed because of ownership links.

In response to the increasing risk exposure, the local regulatory authorities have intensified their scrutiny of credit, in line with the risk-based approach to banking supervision. Commercial banks continue to work with their customers to return ailing credits to the category of fully serviced credit, and banks maintain adequate provisions against potential losses. The Central Bank closely monitors developments and relationships with institutions' affiliates and regulators in other jurisdictions, in order to better assess cross-border risks. The insolvent Barbadian insurance company CLICO, a subsidiary of CL Financial of Trinidad, was placed under judicial management and the judicial manager has been authorised by the High Court to put the company up for sale, on the basis of a restructuring plan. The establishment of the Financial Services Commission in early 2011 was a vital step in strengthening the regulatory framework. The FSC has already started to upgrade regulatory services for nonbanks, even while it is in the process of recruiting and training additional staff. The Central Bank of Barbados works closely with the FSC in overseeing the stability of the financial system.

2. The Structure and Development of the Financial System in Barbados

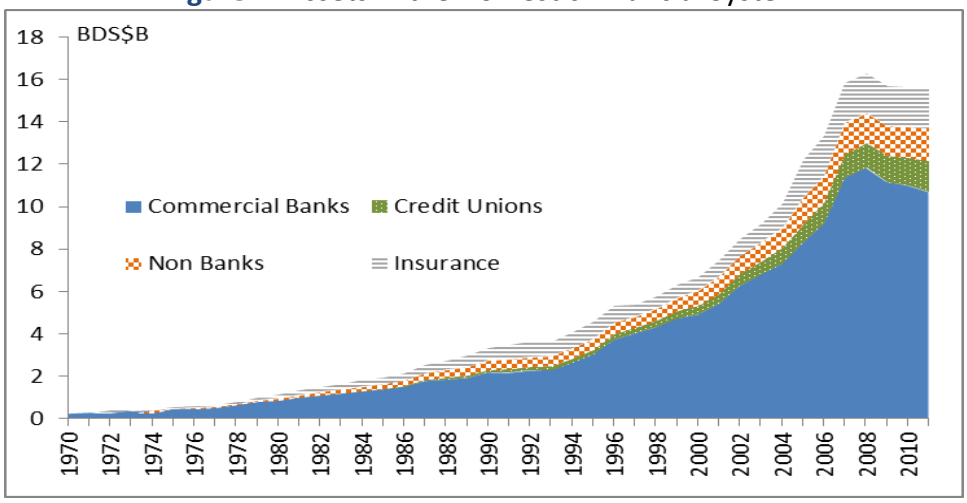
Overview

The Barbadian domestic and international sub-sectors are governed by separate legislative frameworks. The Financial Institutions Act (1996) covers banks, trust companies, finance companies and merchant banks; the recently established Financial Services Commission Act provides for the regulation of credit unions, insurance companies, pension funds, mutual funds and the securities markets; while the International Banking and Financial Services Act (2002) makes legal provision for the operations of the international banks and other financial institutions. The Central Bank of Barbados supervises banks and other deposit taking institutions, both domestic and

international, while the FSC carries supervisory responsibility for all other financial institutions in both the domestic and international sectors as well.

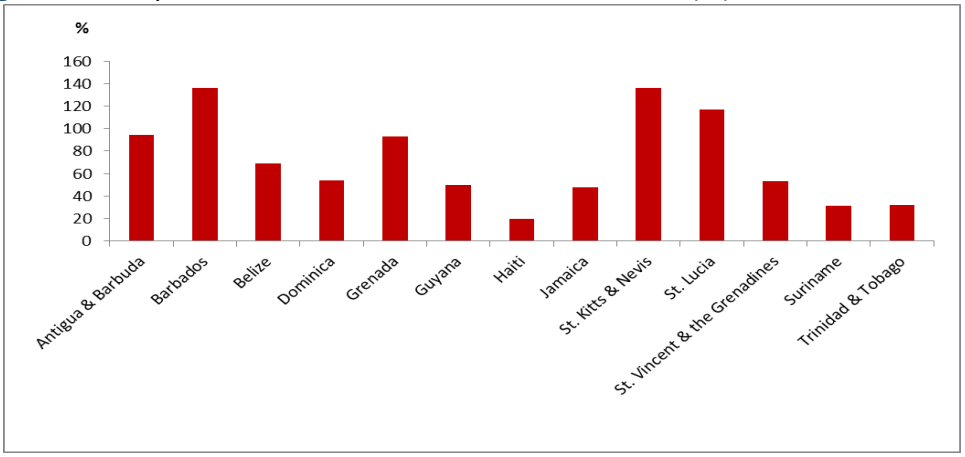
Among domestically oriented private institutions, the dominant entities are the commercial banks, which control about 70% of the loans market and hold assets equivalent to 130% of GDP (Figure 1). The banking system's domestic credit to GDP ratios in CARICOM countries range from 20% to 136% (Figure 2), and total domestic credit to the private sector ranges from between 14% and 113% of the total. The principal challenge faced by banks in Barbados in 2011 was a rise in credit defaults and weak demand for loans as the long recession and the tepid recovery continued to affect borrowers and lenders alike. Consequently, the nonperforming loans (NPLs) ratio of the commercial banks increased sharply during 2010, largely reflecting the problems experienced by some hotels and real estate projects. However, during 2011, the ratio stabilised.

Figure 1: Assets in the Domestic Financial System



Source: Central Bank of Barbados

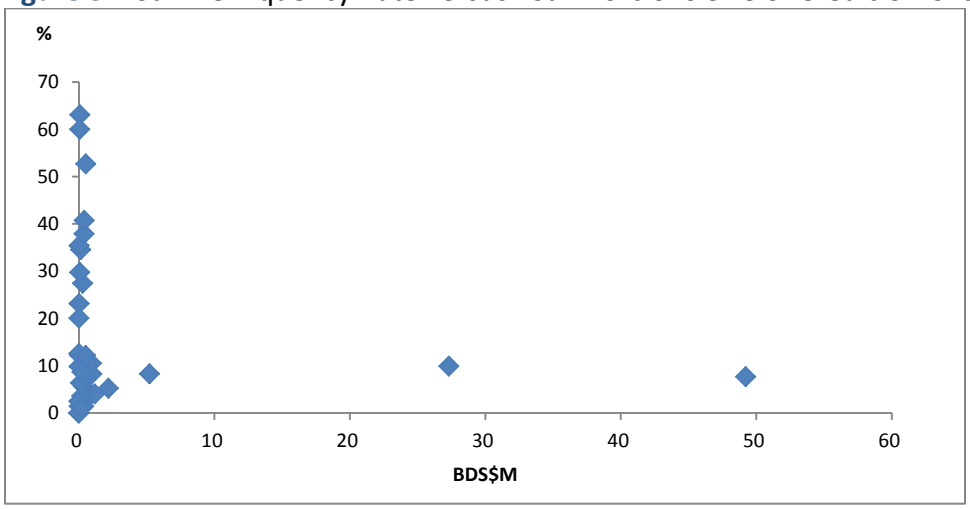
Figure 2: Comparisons of Bank Domestic Credit to GDP (%): Selected Countries



Source: IMF

Credit unions are membership-owned institutions that focus on the provision of affordable personal loans and savings products to their members. Currently, there are 35 credit unions under the Barbados Credit Union League, with the four largest institutions accounting for over 85% of the industry's assets and membership. The largest risk faced by the credit unions is credit risk, principally loans to their membership. From 2005 to 2008, the loan portfolio of credit unions grew on average by 13% per annum, but that growth rate fell to around 6.5% per annum over the past three years. The ratio of credit union to commercial bank loans continued to increase, reaching 21% at the end of 2011, up from 11% in 2000. Credit unions have experienced an increase in loan delinquency rates since 2008. The loans in arrears three months or more now stand at around 7.8% of all loans. Some smaller credit unions have substantially higher loan delinquency rates, but they are all institutions with assets of two million dollars or less (Figure 3).

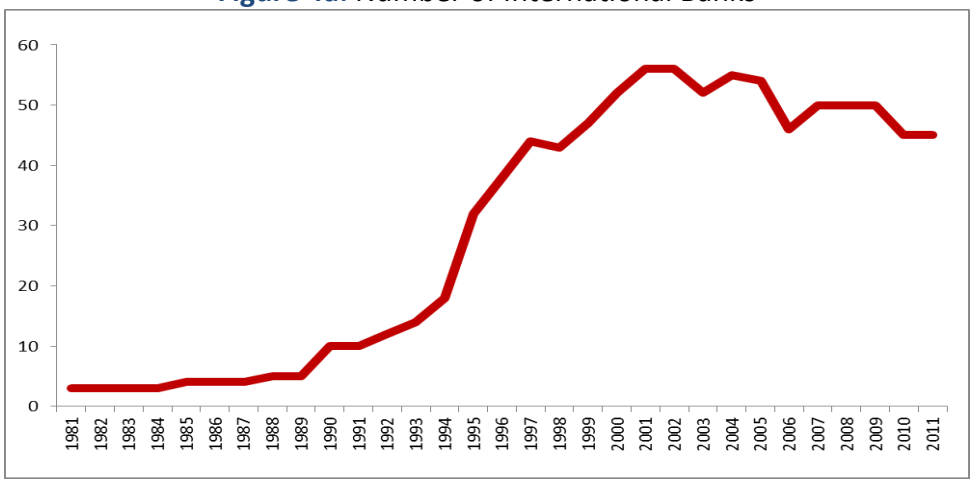
Figure 3: Loan Delinquency Rate versus Loan Portfolio Size of Credit Unions



Source: Co-operatives Department

The insurance industry has traditionally been divided into two classes of companies: general insurers whose main business focuses on property and commercial insurance contracts and life and health firms that provide life and related health insurance policies. Mergers and acquisitions in the industry have seen the creation of multi-line and multi-country insurance holding companies spanning both the life and commercial sectors. Growth in assets for both the domestic components of the life and general insurance has slowed over the past three years. As a result of the failure of CLICO, some life contracts have been moved to surviving providers of insurance services.

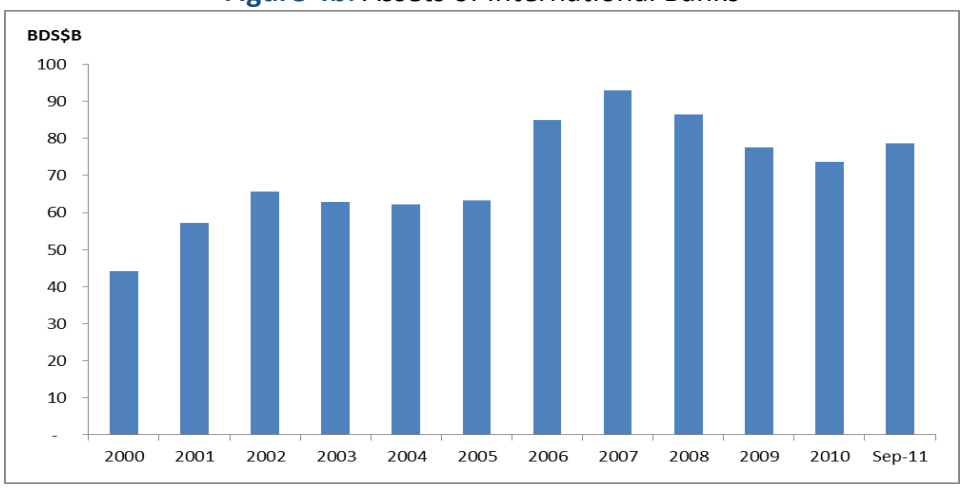
Figure 4a: Number of International Banks



Source: Central Bank of Barbados

The Central Bank of Barbados regulates forty-five international banks under the International Banking and Financial Services Act (Figure 4a). Most international banks operate as treasury management operations or wealth management arms of family-owned enterprises. Total assets have grown somewhat unevenly over the years rising from about $44 billion in 2000 to around $82 billion as at end September 2011 (Figure 4b). The peak in assets was realised in 2007; subsequently assets fell steadily between 2007 and 2010 before recovering modestly in 2011. For the most part, the largest exposures for most of these companies are loans or deposits with their head offices or international government securities. The principal risk faced by the sector is reputational risk.

Figure 4b: Assets of International Banks



Source: Central Bank of Barbados

Box 1: Summary of Past Studies of Barbados and the 2003 and 2009

There have been a number of studies which have investigated various issues related to the Barbadian financial sector, but few have focused explicitly on the sector as a whole. Worrell and Prescod (1983) gave an overview of developments within the Barbadian system from the economy's early developmental stage in 1946, until 1980. This was followed by Haynes (1997) where he continued this analysis looking at the period 1970 – 1996, while more recent papers (see for instance Worrell et al., 2001 and Chase et al., 2005) have provided an updated view on developments here and in the Caribbean.

Worrell and Prescod (1983) suggest that Barbados has not followed a traditional path in the development of its financial sector, as the sector was found to be quite pervasive and influential in the post-World War 2 period, even in the context of a still early, developing economy. Savings banks were the primary source of funding to the economy, as the banking sector began as the dominant sector of the financial system. Banks and other financial institutions however, were primarily responsible for the provision of private sector and consumer instalment credit to individuals, as well as working capital for businesses. Government, via its establishment of the National Insurance Scheme (NIS), was the main source of financing for capital spending from the local financial system, as a large percentage of gross capital formation was financed from overseas. This lack of local financing was also down to the inability to establish a domestic securities exchange, a phenomenon not dissimilar to that in other developing countries at the time.

Haynes (1997) also found a developing and increasingly diversified financial sector as commercial banks now began to face further competition for some of their services from other non-bank entities. These entities, including the credit unions and finance companies provided financing for a number of projects not taken up by commercial banks, and their growth and competitiveness benefitted from the absence of statutory reserve requirements similar to those applied to their banking counterparts. Haynes though, observed that even in an increasingly competitive and developed system which was constrained somewhat by its small size and concentration, institutions continued to follow prudential regulations and guidelines, contributing to the stability of the domestic financial system.

Worrell et al. (2001) followed up with an assessment of Caribbean financial systems' stability in the late 1990's. They found that Barbados' system continued to be dominated by a few commercial banks, the majority of which (four of seven) were owned by extra-regional parents. The banks made up 62% of financial assets at the time, with the NIS, insurance companies and credit unions accounting for 15%, 11% and 5% respectively. As with Haynes (1997), the authors found that commercial banks, who were subject to a number of capital, liquidity and reserve requirements, were well capitalised but, noted that there were two interventions within the sector in the early 1990s (BCCI and BNB). The Barbados Stock Exchange, which had been finally established in 1987, did not significantly impact the system, with little trading and few new issues up to that point. In terms of the international business and financial services (IBFS) sector, the authors pointed to Barbados' increasing attraction of international banks and captive insurance companies, mostly on account of its IBFS legislation.

Finally, Chase et al. (2005) tell a similar story to their counterparts, highlighting the fact that commercial banks still maintained the overwhelming market-share in the financial system, with assets of over 130% of GDP in 2003. Despite some increasing non-performing loans within the banking sector, commercial banks still remained very liquid, profitable and very highly capitalised. In addition, the risk of domestically generated contagion within the system was limited by the fact that all banks at the time were now foreign-owned. Nevertheless, while stress tests at the time highlighted a system resilient to most feasible, macroeconomic shocks, the major risk of the time was thought to be those originating from the banking sectors of the parent companies of locally-run banks.

In 2003 and 2009, the International Monetary Fund undertook two Financial Sector Stability Assessments (FSSAs) under their Financial Sector Assessment Programme (FSAP). The assessments, scheduled to be approximately five years apart, were both done at a time when the global and domestic economies had both been recently hit by economic downturns. The outcomes of these assessments both indicated that the Barbadian banking sector remained very well capitalised and that, while credit risk was in their view the major risk facing the system, any liberalisation of the external capital account or exchange controls should be accompanied by strengthened supervision to mitigate against the financial instability risks associated with increased cross-border financial flows. The assessments also indicated that compliance with global supervisory and regulatory standards for the domestic and international banking sectors was very high and there exists an effective framework for anti-money laundering and combating financial of terrorism, but some concerns remain in the area of insurance supervision in particular. Despite being established since 1987, securities markets remained underdeveloped, but the IBFS sector, while facing increasing competition in more recent times, continued to be well insulated from the domestic banking system, thereby limiting contagion risks.

DeLisle Worrell and Ronald Prescod (1983), "Development of the Financial Sector in Barbados 1946 – 1980", Central Bank of Barbados, Economic Review, September 1983, Volume 10 No. 7, pp. 9 - 26.

Cleviston Haynes (1997), "The Evolution of the Financial Sector in Barbados (1970 - 1996) In the Financial Evolution of the Caribbean Community (1970 - 1996)", Caribbean Centre for Money and Finance, pp. 143 - 168.

DeLisle Worrell, Desiree Cherebin and Tracy Polius-Mounsey (2001), "Financial System Soundness in the Caribbean: An Initial Assessment", IMF Working paper WP/01/123.

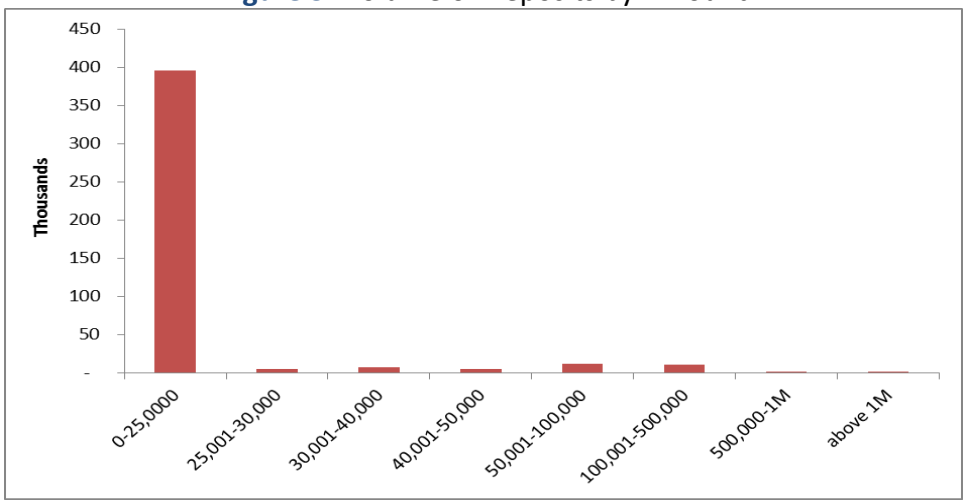
Karen Chase, Kevin Greenidge, Winston Moore and DeLisle Worrell (2005), "Quantitative Assessment of a Financial System", IMF Working paper WP/05/76.

The Central Bank participated in several supervisory colleges for commercial banks over the past three years, including those organised by the Caribbean Group of Banking Supervisors (CGBS) and the Office of the Superintendent of Financial Institutions (OSFI) Canada. These colleges bring together the banking supervisors of all countries where multinational banks operate, and are a forum for the discussion of cross-border risk exposures and exchange of information. Locally, the Central Bank continued to execute its risk based programme of onsite and offsite inspections of commercial banks and international banks, with special focus on bank operations and risk-management

systems, thus complying with Pillar 2 of the Basel 2 framework of banking guidelines issued by the Banking Committee on Banking Supervision of the Bank for International Settlements (BIS).

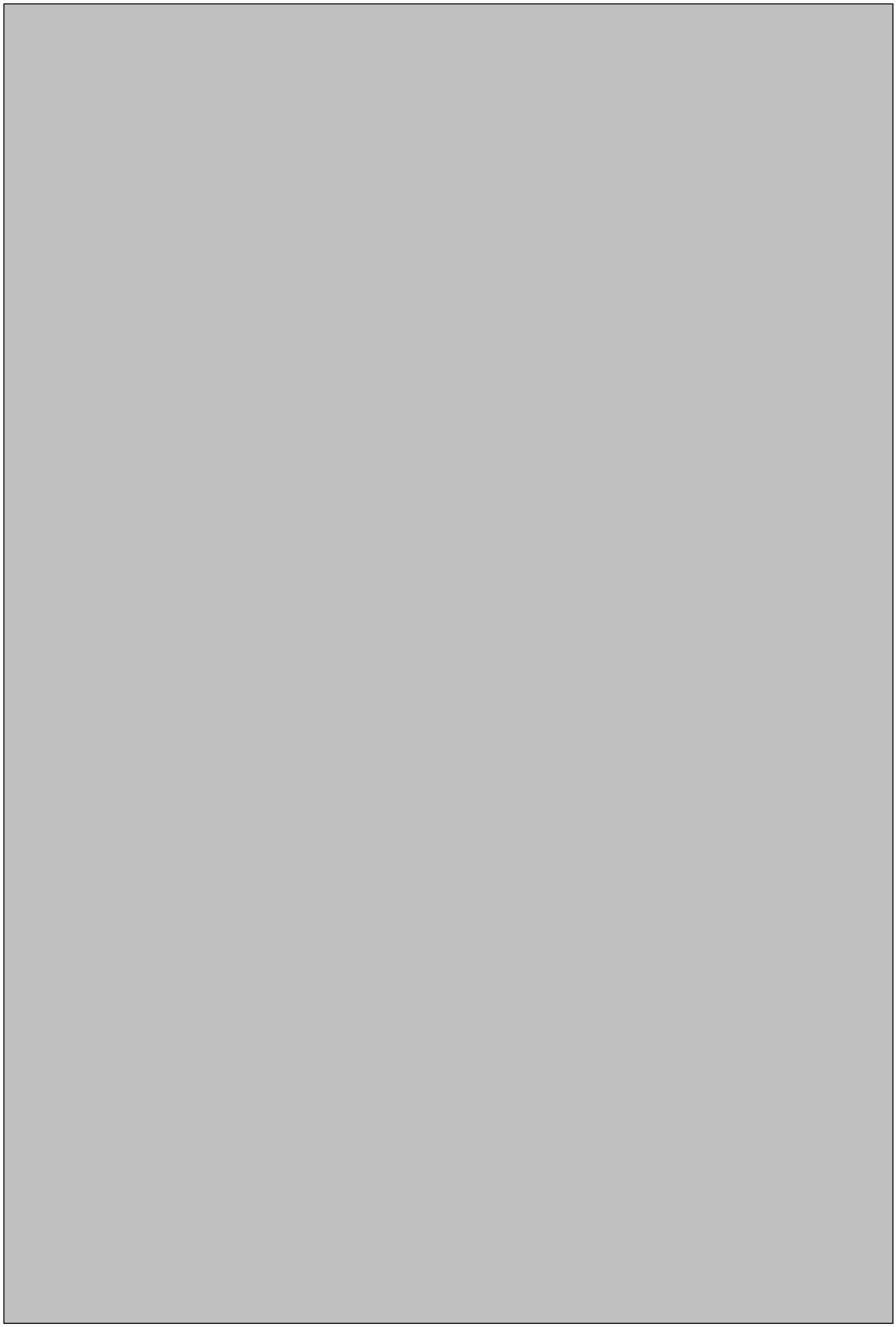
The Deposit Insurance Act (2006) provides the legal framework for the Deposit Insurance Corporation, which insures depositor accounts up to $25,000. At the end of 2010 about 90% of accounts in the Barbadian commercial banking system were below the $25,000 threshold (Figure 5). The deposit insurance fund assets grew by over one quarter to around $22 million at the end of 2010.

Figure 5: Volume of Deposits by Amount



Source: Barbados Deposit Insurance Corporation

The Financial Services Commission, which was launched in April 2011, is the supervisor of securities traders, credit unions, insurance companies and pension plans. The FSC began operations with suitably qualified staff from the Securities and Exchange Commission and the Supervisor of Insurance Office, both of which have been superseded, and from the Office of the Registrar of Cooperatives, which now regulates nonfinancial cooperatives only. The Central Bank and the FSC collaborate closely on issues of financial stability, and have provided significant guidance in the preparation of the Financial Stability Report. The establishment of the FSC was a recommendation of the 2008 FSAP (Box 2).



3. Banking System

In Table 1 below, key Financial Soundness Indicators (FSIs) for the commercial banking system suggest that commercial banks have remained stable and well capitalised during the past three to four years. Capital adequacy reached historic highs at the end of September 2011, but profitability has declined. The system continues to be very liquid as loan demand has slowed somewhat since 2008, while commercial banks' exposures to foreign deposits have also fallen mainly due to the switching of assets from domestic operations to the international bank operations of one bank. Non-performing loans exceeded 10% in 2010 and 2011, but this amount has been driven by a few substandard loans to the hotel sector, and helps to explain the declining provisions to non-performing loans ratio.

Table 1: Key FSIs for the Domestic Commercial Banking System

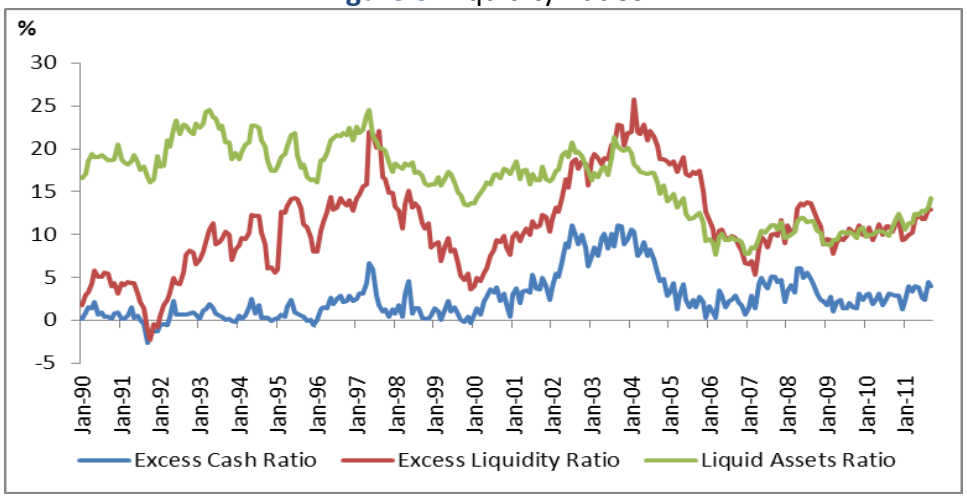
	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*Q3 2011*
Solvency indicator							
Capital adequacy ratio (CAR)	15.9	14.4	16.4	16.1	17.5	17.1	19.3
Liquidity indicators							
Loan to deposit ratio (%)	60.0	63.0	56.0	64.0	66.0	67.0	68.4
Demand deposits to total deposits (%)	38.5	36.4	36.6	34.9	36.6	35.2	33.5
Liquid assets, % of total assets	9.3	7.9	9.5	9.0	10.8	11.5	14.3
Credit risk indicators							
Total assets (growth rate, %)	13.6	9.3	25.2	3.9	(5.4)	(1.5)	(3.0)
Loans and advances (growth rate, %)	22.0	15.5	8.1	11.9	2.7	0.6	(1.1)
Nonperforming loans ratio (%)	5.6	4.4	2.8	3.5	7.2	10.8	10.6
Provisions to nonperforming loans (%)	25.3	31.7	52.4	60.1	43.6	37.4	32.6
Foreign exchange risk indicators							
Deposits in Foreign Exchange (% of total deposits)	16.7	14.2	18.9	14.9	13.4	13.6	8.6
Profitability indicators							
Return on Equity (ROE)	9.7	14.3	13.5	11.5	9.9	11.7	7.6*
Return on Assets (ROA)	1.6	2.0	1.7	1.4	1.6	1.3	1.0*

Source: Central Bank of Barbados ** denotes annualised*

With slow domestic economic activity, commercial banks' assets declined 3% year-on-year to $10.7 billion. Demand for loans and advances remained flat since 2009, falling by 1.1% over the 12 months ending September 2011, while domestic deposits increased 2% over the similar period. As a result, commercial banks continue to hold significant amounts of liquid assets, with their liquid assets and excess liquidity ratios both

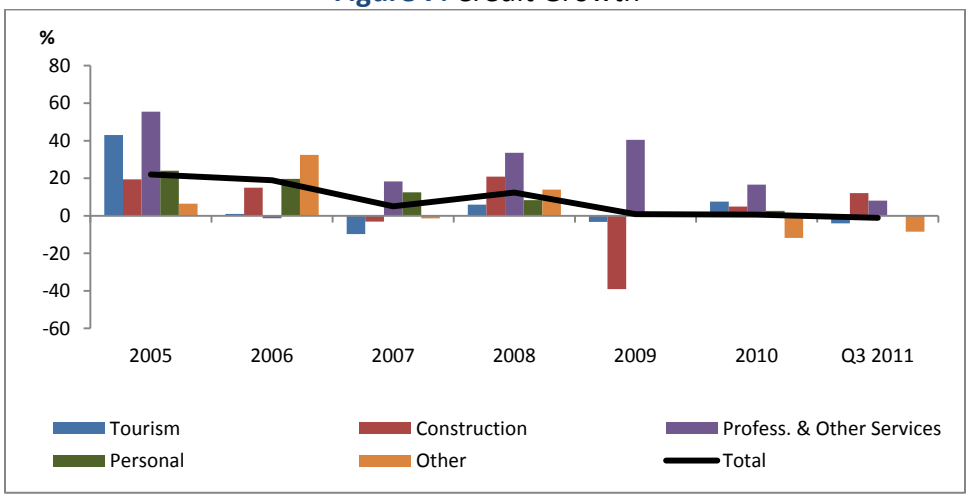
increasing from 10.9% at September 2010, to 14.3% and 13.1% respectively, one year later. These ratios largely reflected banks holdings of excess treasury bills, which were up 29% during the period.

Figure 6: Liquidity Ratios



Source: Central Bank of Barbados

Figure 7: Credit Growth

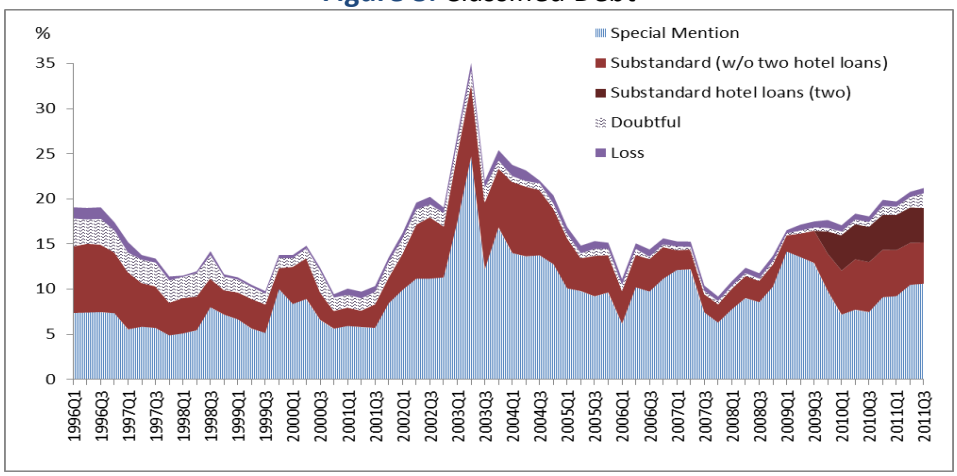


Source: Central Bank of Barbados

During 2011, construction and professional & other services were the only broad sectors that registered significant growth in credit (Figure 7). Private mortgages and credit cards continued to register a little growth, but it made little impact on personal loans overall.

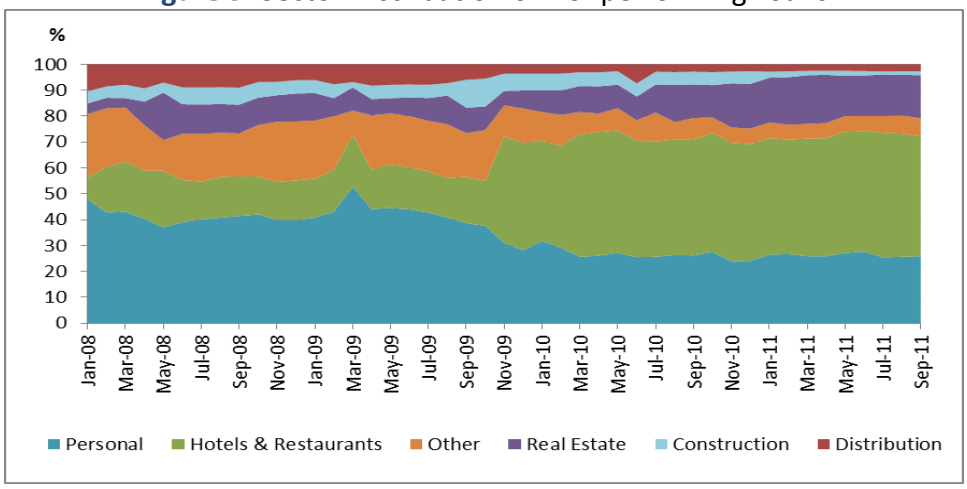
At September 2011, the NPL ratio for the commercial banking sector was 10.6%, no worse than a year earlier. The reported ratio continues to be negatively impacted by two large loans extended to the hotel sector. Excluding these loans the NPL ratio falls to 7%.

Figure 8: Classified Debt



Source: Central Bank of Barbados

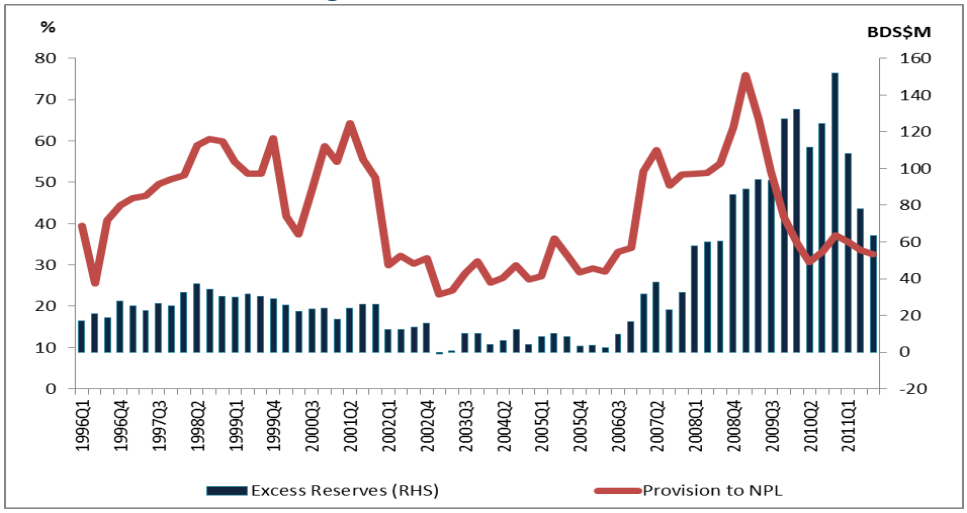
Figure 9: Sector Distribution of Nonperforming Loans



Source: Central Bank of Barbados

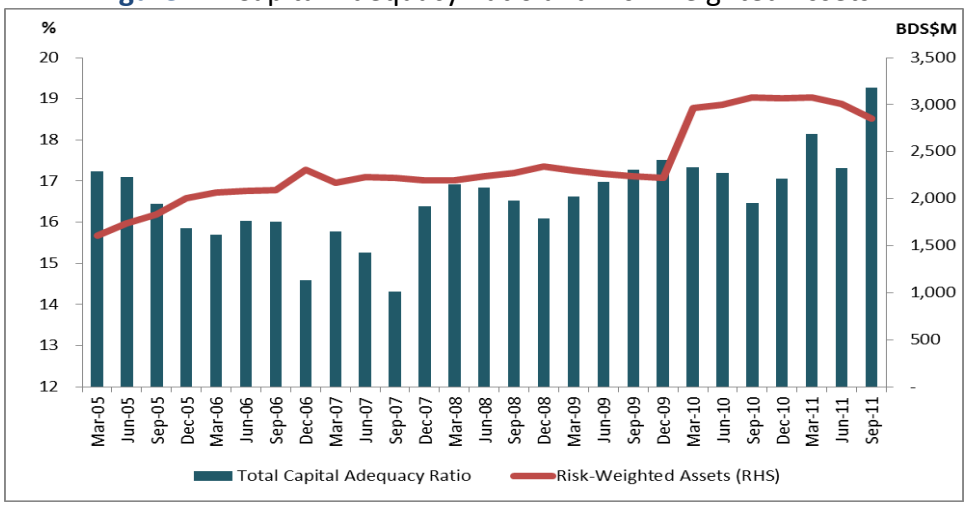
Banks remained adequately capitalised and continued to allocate reserves well above the statutory requirements to cover the losses that may arise from their classified debt. Eighty percent of the classified debt in Barbados falls within the substandard category. Under the current regulatory framework only 10% provisioning is required for this category, yet banks' actual reserves are sufficient to cover 30% of their total classified debt (Figure 10).

Figure 10: Excess Provisions



Source: Central Bank of Barbados

Figure 11: Capital Adequacy Ratio and Risk-weighted Assets



Source: Central Bank of Barbados

Commercial banks' total capital adequacy at September 2011 was 19.3%, with Tier I (core capital)[2] being 18.2%. Figure 11 provides a view of the trend in capital adequacy and risk weighted assets over the past six years. Despite its fluctuations, the banking system has been consistently above the regulatory requirement of 8% and since the financial crises of 2007 – 2009, the capital position has strengthened. At September 2011, the lowest CAR reported by a commercial bank was 17.1%. As shown in Table 2, all banks operating in Barbados are subsidiaries or branches of regional or international banking groups with strong balance sheets, substantial excess capital adequacy and operating in relatively stable economies.

[2] Tier I capital is the book value of a bank's stock plus retained earnings.

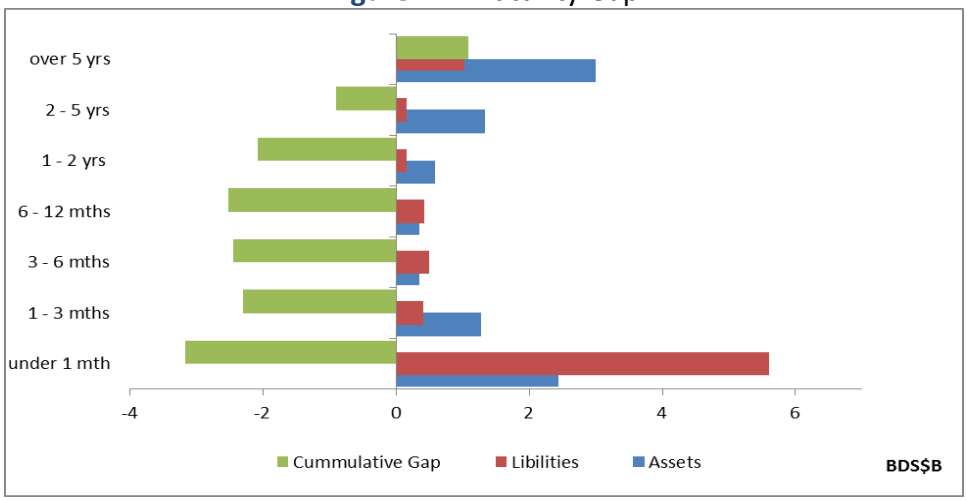
Table 2: Capital Adequacy and Rating of Parent

Domestic Bank	Majority Shareholder	Majority Shareholder Capital Adequacy (Tier 1-2010)	Majority Shareholder's Rating (Moody's)	Country Rating (Majority Shareholder) (S&P)
Barbados National Bank	Republic Bank Limited	29.95*	Baa1	A1/Trinidad & Tobago
CIBC FirstCaribbean International Bank	CIBC	14.6	Aa2	AAA/ Canada
Bank of Nova Scotia	Bank of Nova Scotia	12.3	Aa1	AAA/Canada
Royal Bank of Canada	Royal Bank of Canada	13.6	Aa1	AAA/Canada
Bank of Butterfield	Bank of Butterfield	15.6	Aa2	A-/Bermuda
RBTT Ltd	Royal Bank of Canada	12.3	Aa1	AAA/Canada
Citibank Ltd[3]	Citigroup Inc.	13.5**	A3	AA+/USA

*Tier I & II capital adequacy, **2011 US 10-Q Filing (Securities & Exchange Commission)

Source: 2010 Annual Reports

Figure 12: Maturity Gap



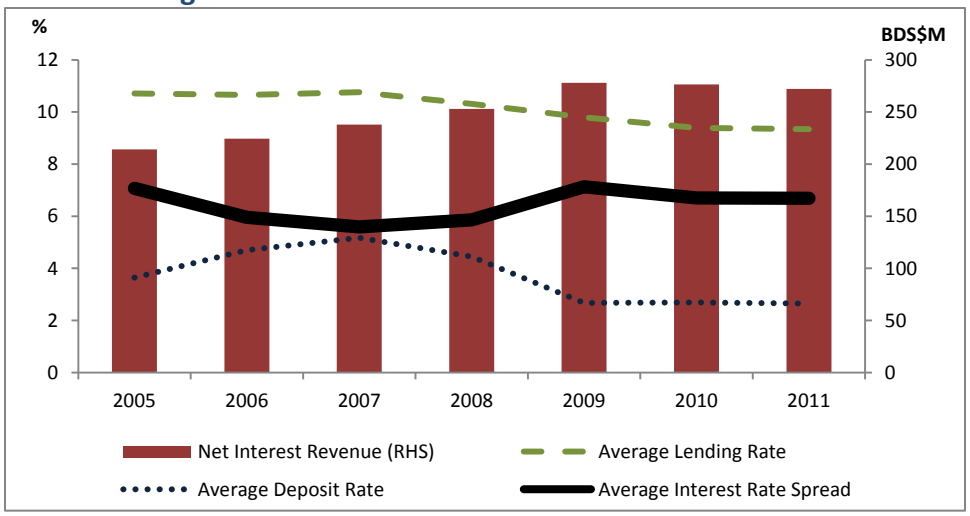
Source: Central Bank of Barbados

[3] Data on Citibank is excluded from subsequent analysis of the banking system due to the recent nature of this licensee.

Liquidity in the banking system remained at a comfortable level throughout 2011, but the worsening loan quality and the slowdown in deposits, increases the potential for greater pressure on banks liquidity. The asset liability mismatch normally associated with the banking industry (Figure 12), implies limited risk to bank profitability, because loan contracts are typically written so as to permit adjustment in interest earnings to cover any increase in deposit interest rates.

The spread between average lending and deposit interest rates has remained relatively stable – above 6.5% – since the start of the recession, and net interest income has generally been constant (Figure 13a). Furthermore, market risk continues to be limited, as there is little trading in the foreign exchange, commodities, equities and bond markets.

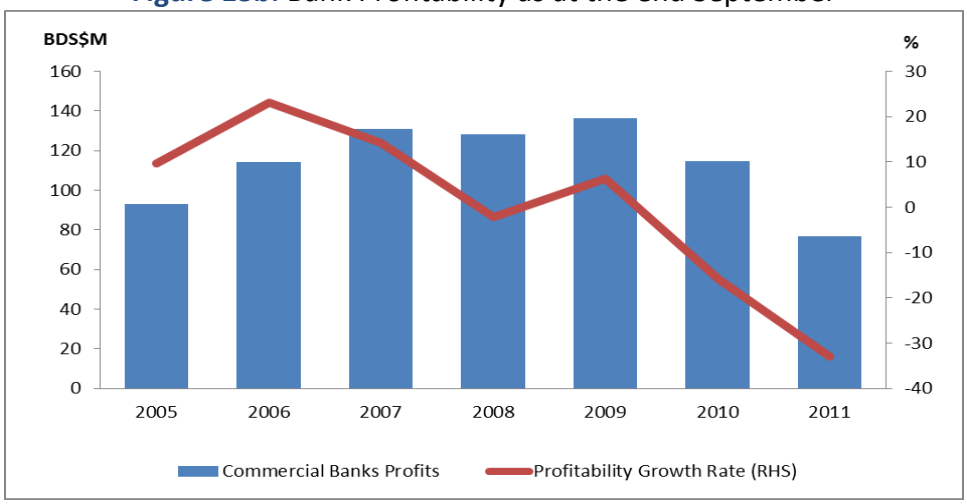
Figure 13a: Net Interest Income and Interest Rates



Source: Central Bank of Barbados

Figure 13b below shows the aggregate profits of the commercial banks for the first nine months of 2004 to 2011. It reveals the continued slide in commercial bank profitability since 2009. ROA moved from 1.5% in 2009, to 1.2% and 1.0% the following years. However, the ROE improved from 9.4% in 2009, to 11.9% in 2010 but declined to 7.6% in 2011.

Figure 13b: Bank Profitability as at the end September



Source: Central Bank of Barbados

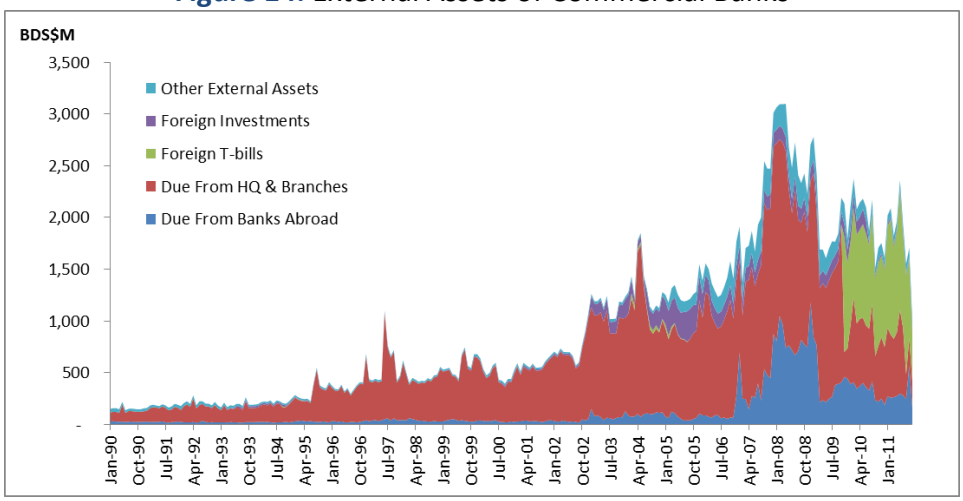
External and Country Exposures

Commercial banks in Barbados are relatively more exposed to foreign financial institutions and investments than to their local counterparts because the system is 100% foreign owned.[4] External assets and liabilities have both grown appreciably over the past two decades, with the major reversal attributable to a withdrawal of funds from international markets, as the global financial crisis began to take effect in 2007/2008, after commercial banks had built up considerable exposures overseas.

External assets of commercial banks are primarily balances due to headquarters and branches, but balances due to other banks, particularly in the United States, were key contributors to the build-up of international exposures between 2006 and mid-2008 (Figure 14). Since then, those positions have been reversed, and over the past two years, commercial banks have substituted US Treasury Bills for holdings in their US affiliates and elsewhere. External assets of banks stood at $993.4 million as at September 2011 – down considerably (-34.4%) from a year earlier and $616.0 million less than at the beginning of 2011. This compares with the $186.5 million decline recorded over 2010. The primary reason for the decline in assets has been a reduction in funds held with US, Canadian and Caribbean affiliates, as well as the maturing of foreign Treasury Bills during the second and third quarters of 2011. Much of this movement has been concentrated in a few banks and represents inter-group transfer of business from the domestic financial system to other locally-licensed international branches of financial institutions.

[4] Two banks have minority local shareholding.

Figure 14: External Assets of Commercial Banks

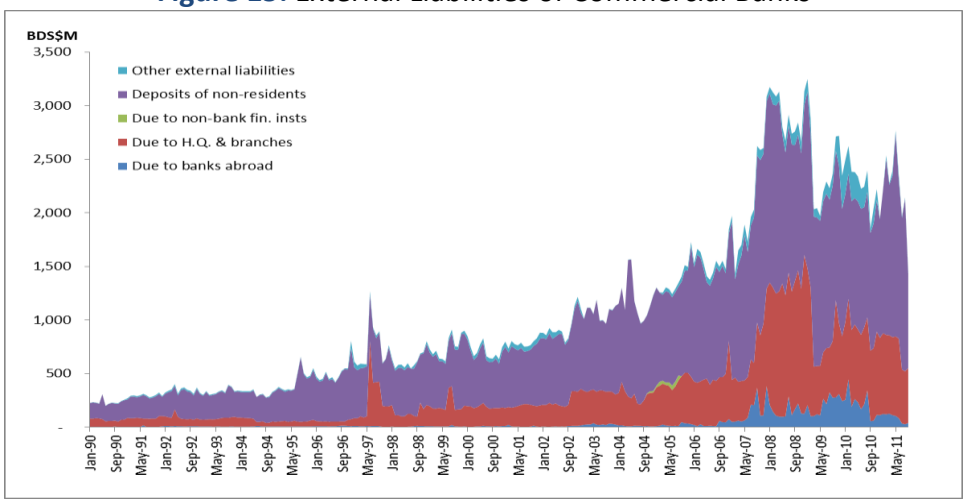


Source: Central Bank of Barbados

External liabilities are dominated by funds deposited by non-residents of Barbados (Figure 15). Deposits from foreign affiliates is the second largest category, particularly because of the parent, subsidiary or branch relationships which exist between foreign and domestically-run banks in Barbados. The majority of this funding is sourced from Canada, where four of six commercial banks are ultimately owned. External liabilities ended the third quarter of 2011 at $1,438.4 million, representing a decline of 22% since September 2010. Much of this decline has been concentrated amongst a few banks and has been driven by transfers in deposits from non-residents - which match the relevant reduction in foreign Treasury Bills on the asset side - and funds due to US affiliates.

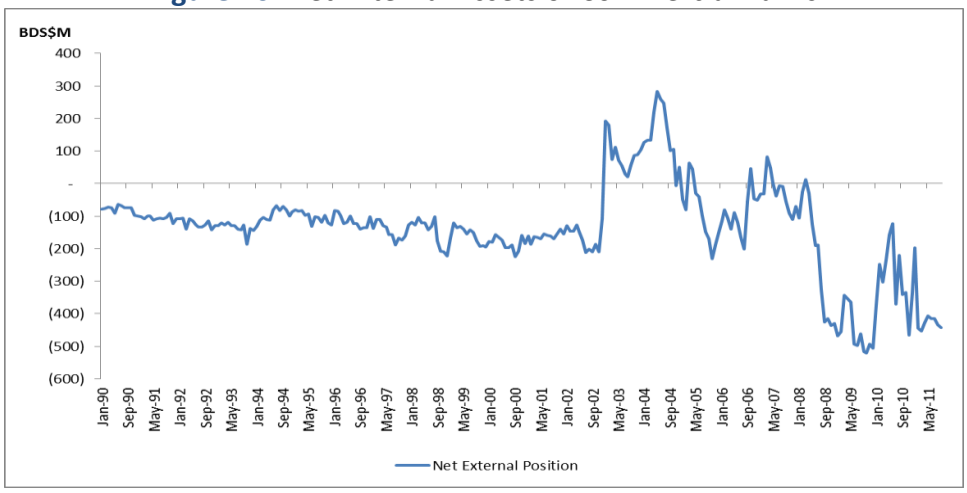
Commercial banks' net external positions shifted from an average range of between -$100 million and -$200 million in the 1990s, to positive territory in mid-2002/2003. This was a period when there were regional mergers and acquisitions throughout the Caribbean (Figure 16). Commercial banks' net external positions became negative once more from 2005, exceeding -$500 million on occasion. Net external assets ended at -$445.0 million as at September 2011, further declining from the September 2010 and December 2010 positions of -$339.9 million and -$333.6 million, respectively.

Figure 15: External Liabilities of Commercial Banks



Source: Central Bank of Barbados

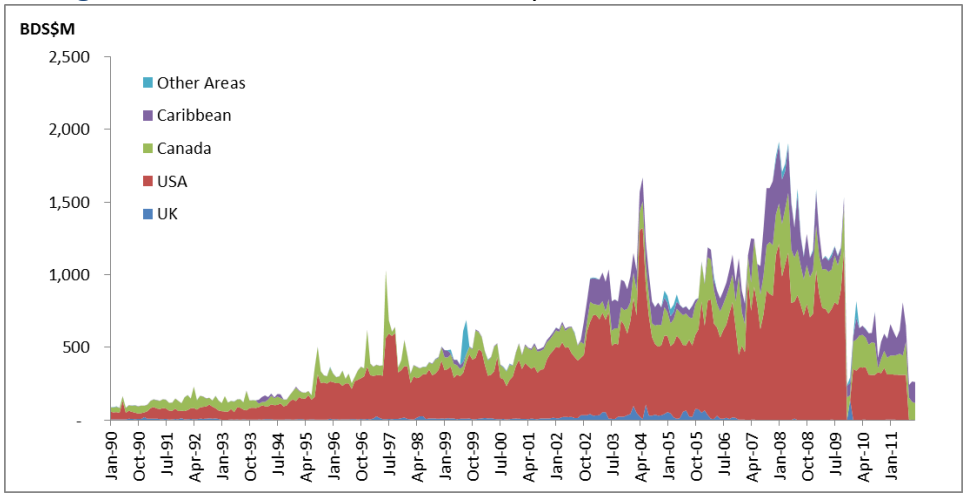
Figure 16: Net External Assets of Commercial Banks



Source: Central Bank of Barbados

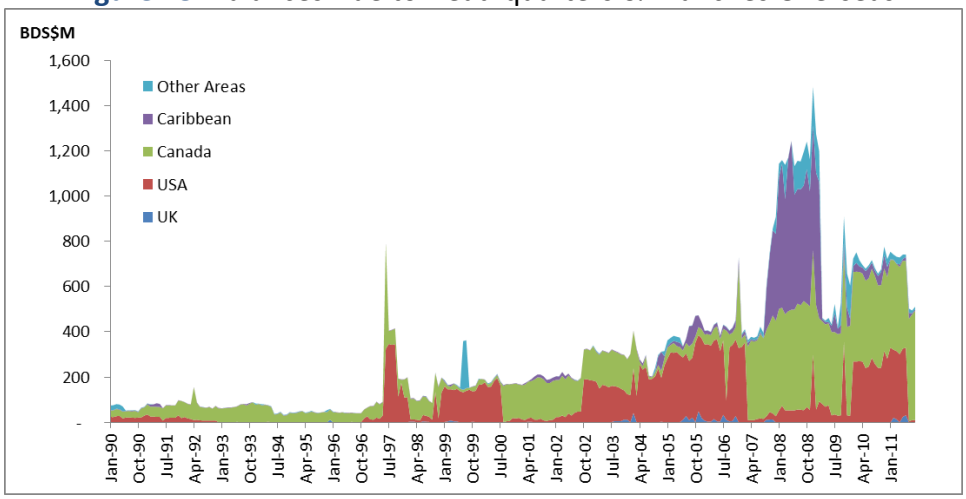
Figures 17 and 18 describe geographic movements in banks' balances due from and due to affiliates, respectively. With respect to banks' balances due from affiliates, there appears to be little switching amongst regions, up until late 2009. From this point onwards, banks significantly reduced their assets held in overseas US branches, and transferred them into US treasury bills.

Figure 17: Balances Due from Head-quarters & Branches Overseas



Source: Central Bank of Barbados

Figure 18: Balances Due to Head-quarters & Branches Overseas



Source: Central Bank of Barbados

With respect to funds due to foreign affiliates, banks have switched amongst US, Canadian and Caribbean headquarters and branches (Figure 18). During this period as well, there was a significant inflow of funds from Caribbean and other regions, concentrated primarily in a small number of institutions.

Stress Testing Analysis

Stress tests are used to analyse the possible effects of extreme events that lie outside normal market conditions. A stress test of the six commercial banks' credit portfolios was undertaken by applying shocks to the country's gross domestic product for the year

2012. The procedure followed was to apply increasingly severe contractions in GDP for this year, and to calculate the impact on the NPLs of each commercial bank. Given the lagged pass-through of GDP to non-performing loans, the majority of the effect was recorded in 2013. Box 3 outlines the assumptions of the model used for this framework, while Table 3 illustrates the results of these shocks, with columns 2 and 3 showing the ranges within which non-performing loans are expected to fall in each year. Column 4 shows the ranges of capital adequacy ratios for the least and most capitalized banks after each macroeconomic shock. Figure 19 provides a graphical presentation of the impact that changes in both non-performing loans and provisioning requirements, would have on the banking system.

Table 3: Results of Macroeconomic Shocks to Non-performing loans

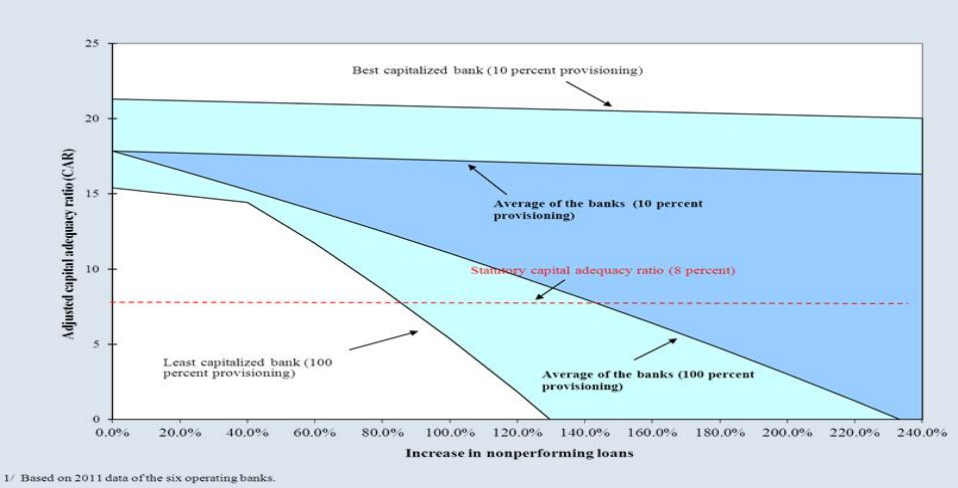
Scenario	NPL 2012 (%)	NPL 2013 (%)	After Shock CAR Range (%)	Number of Banks with CAR<8%
Baseline (GDP 2% 2012)	6.5 – 10.0	5.2 – 8.6	14.3 – 18.6	0
Scenario 1 (GDP -5% 2012)	7.4 – 10.9	8.0 – 11.5	12.2 – 17.6	0
Scenario 2 (GDP -10% 2012)	8.1 – 11.5	10.0 – 13.5	8.5 – 16.2	0
Scenario 3 (GDP -15% 2012)	8.7 – 12.2	12.0 – 15.5	7.0 – 14.5	1
Scenario 4 (GDP -20% 2012)	9.4 – 12.8	14.0 – 17.5	3.8 – 14.1	3
Scenario 5 (GDP -30% 2012)	10.7 – 14.1	18.0 – 21.4	0 – 13.7	4

Table 3 shows that the banking system is very resilient to any plausible macroeconomic shock. Should there be a contraction of real GDP of up to 5%, all banks continue to have capital adequacy in excess of 8%, even though loan delinquencies rise to 11.5% for at least one bank by 2013. If the economy contracts by as much as 15%, the capital adequacy of one bank falls to 7%, but all others remain above 8%. No bank is at risk of insolvency unless the economy contracts by more than 20%.

An alternative view of these results appears in Figure 19, which shows that, in the case of the least well capitalised bank, an NPL increase of 80%, with total write-off of all NPLs, is needed to reduce capital adequacy to 8%. NPLs would have to rise 130%, with total write-offs, to render the least capitalised bank insolvent. If all the increase in NPLs

is confined to the "substandard" category, attracting 10% provisioning, no bank's capital adequacy falls below 8%, even for NPL increases in excess of 250%.

Figure 19: Results of Changes in NPLs and Provisioning Requirements



In order to complete the analysis, stress tests of commercial banks' interconnectedness and contagion risks were undertaken, focusing on two broad scenarios: (1) a default of each bank's three largest credit exposures and (2) defaults of selected banking systems and/or groups. Local interbank holdings and exposures have been relatively low in Barbados over the past 15 years, and only in the past six to seven years has there been any consistent build-up over $20 million (Figure 20). However, these funds have primarily been in demand deposits, which are traditionally quite volatile, with longer-term deposits only becoming a significant source of inter-bank funding since early 2010.

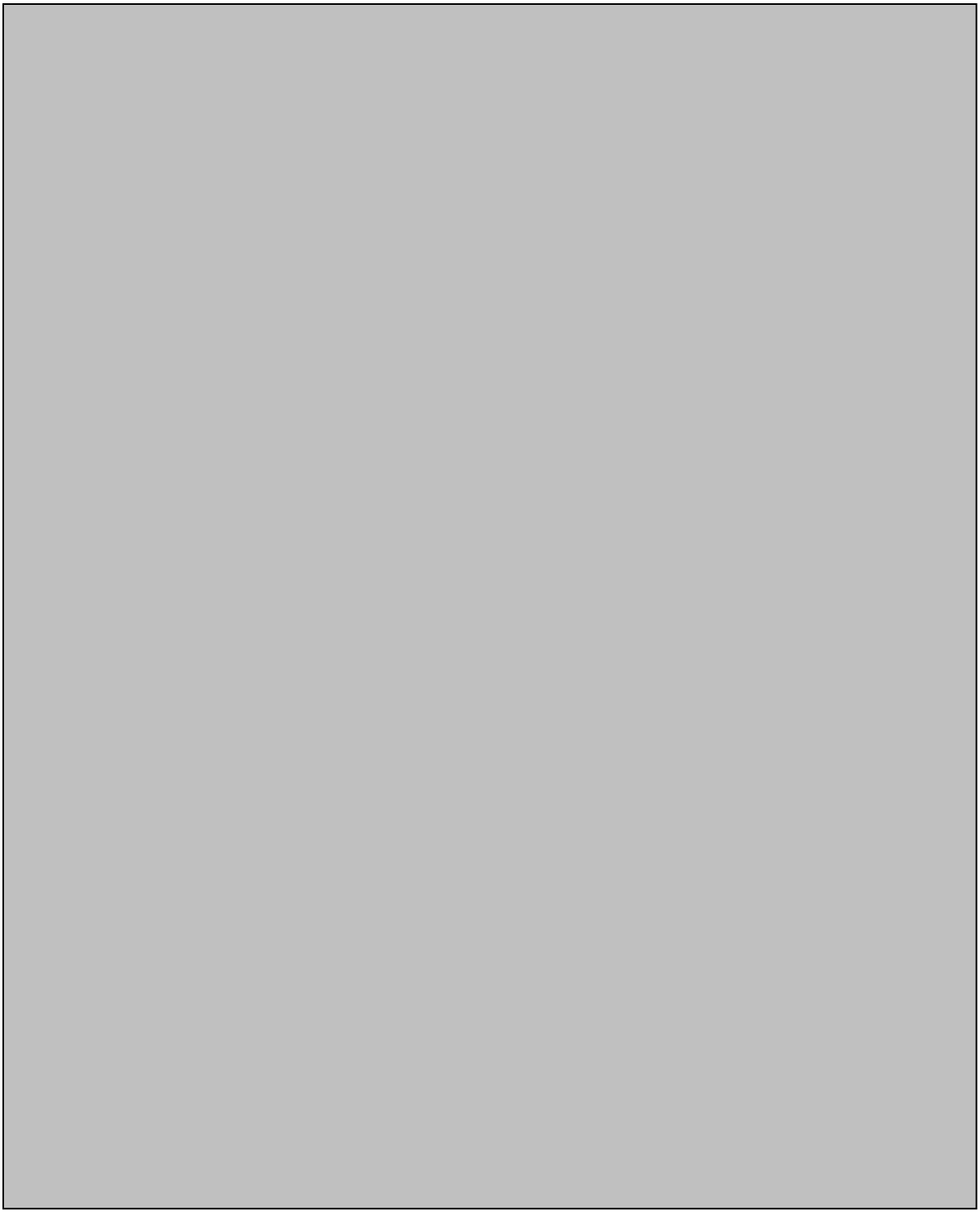
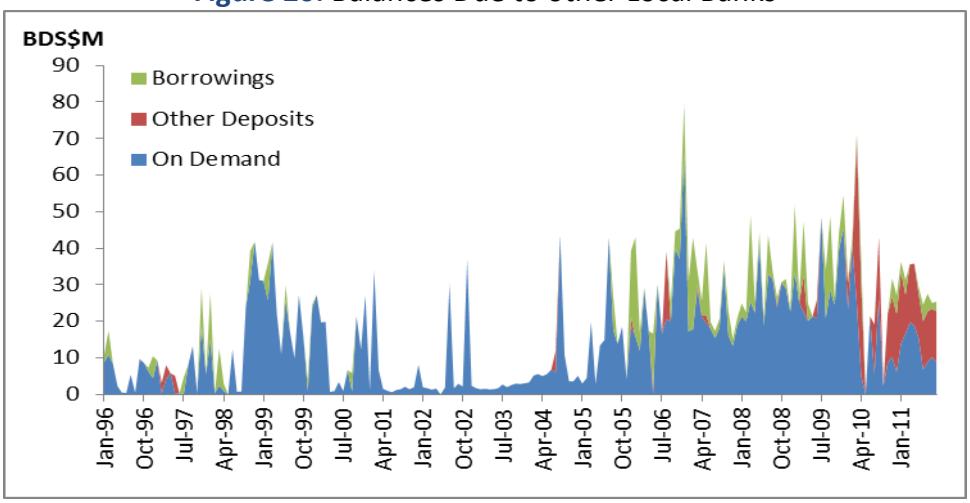


Figure 20: Balances Due to other Local Banks



Source: Central Bank of Barbados

The model used for the analysis of contagion tests the sensitivity of the system under alternative assumptions about the size of loss due to the three largest external exposures of each bank[5]. The results are displayed in Tables 4 and 5. In the baseline, where there is no loss from external exposures, bank capital ranges between 15% and 23%. Should Bank 1's three largest exposures to other banks within the system go unpaid, a chain reaction is set off which results in two banks falling below the 8% capital adequacy standard. The range for banks that remain above the 8% limit goes from 10% to 22%. Bank 5 has the weakest links within the system: even its three largest exposures are a loss, all banks remain above the minimum CAR. The impact is even milder if the losses are only 50% of the amounts outstanding. The third set of scenarios show the impact of 100% loss of the 3 largest exposures, plus an additional 5% loss of deposits.

Scenario 2 looks at losses that would arise in case assets held abroad were to be completely written off. No bank would fall below the 8% minimum, even if all balances owed from the countries and regions identified were to become a total loss. The same is true if all amounts owing from overseas head offices and branches were to become total loss. Bank capital declines to the 8% minimum (the "breaking point") only if amounts due to head offices and affiliates increase 7% and then were totally lost, and an additional 10% of domestic deposits were to be withdrawn. The analysis therefore suggests that commercial banks' high capital levels, compared to their interbank and external exposures, insulate them from major contagion among themselves, and from regional and international banking systems.

[5] See Box 4 and/or Guy and Lowe (2011b) for a more in-depth description of the model's assumptions and methodology.

Table 4: Results of Default of Banks' Three Largest Exposures

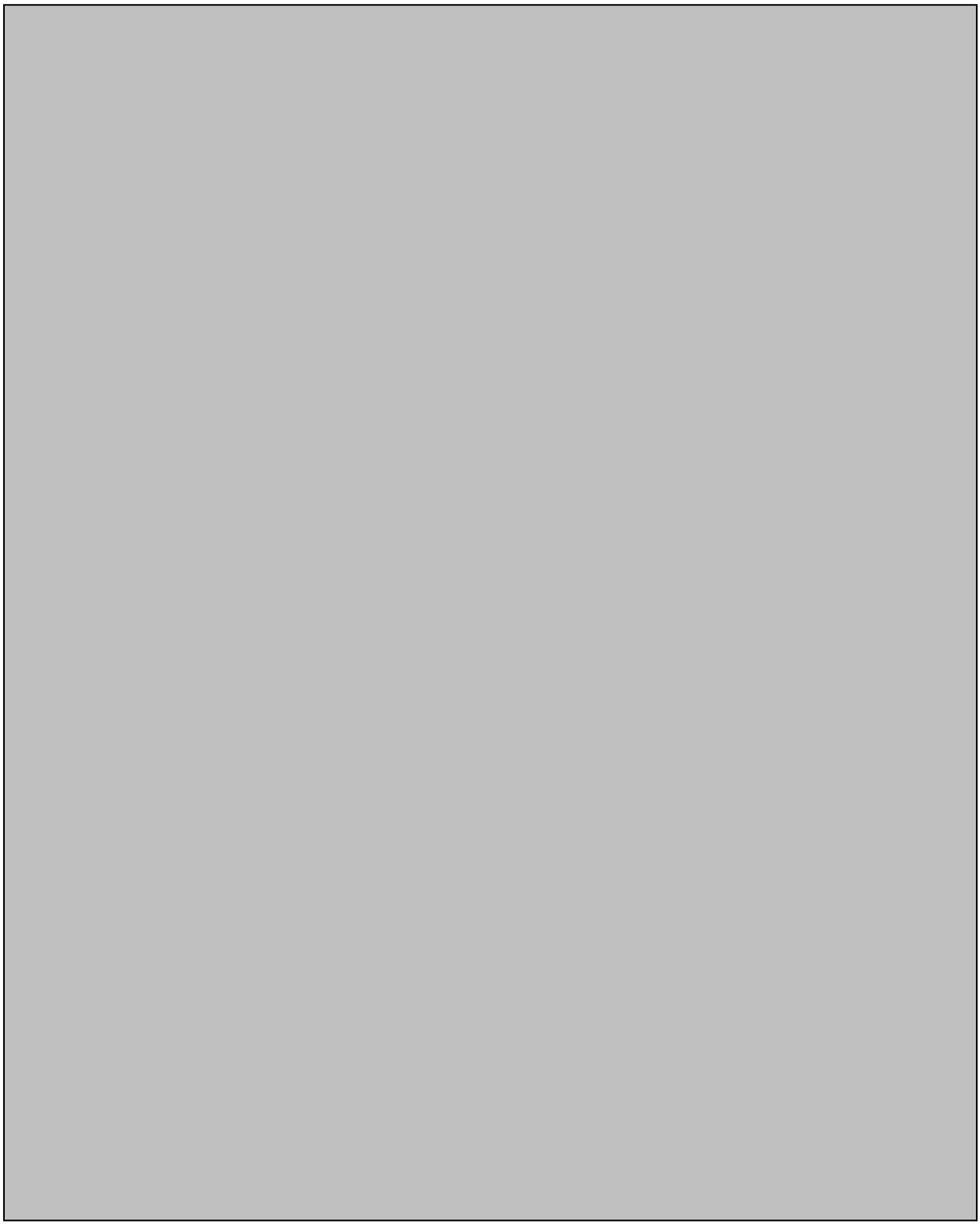
Shocks	Minimum CAR % of Remaining Banks	Maximum CAR %	Sector CAR %	Number of Banks with CAR < 8%
Baseline	15.41	22.76	19.05	0
Bank 1	9.99	20.56	15.82	2
Bank 2	9.94	20.56	16.13	2
Bank 3	9.99	21.31	14.66	2
Bank 4	18.60	21.31	19.85	2
Bank 5	15.41	22.76	18.22	0
Bank 6	9.93	21.31	16.24	2
Bank 1 (50% LGD)	12.33	22.76	17.63	0
Bank 2 (50% LGD)	9.94	20.56	16.13	2
Bank 3 (50% LGD)	12.58	21.31	16.46	0
Bank 4 (50% LGD)	18.60	21.31	19.85	2
Bank 5 (50% LGD)	13.66	22.76	18.64	0
Bank 6 (50% LGD)	9.93	21.31	16.24	2
Bank 1 (+5%)	n/a	n/a	n/a	6
Bank 2 (+5%)	n/a	9.21	9.21	5
Bank 3 (+5%)	n/a	n/a	n/a	6
Bank 4 (+5%)	12.75	20.68	15.60	2
Bank 5 (+5%)	10.00	22.76	18.22	0
Bank 6 (+5%)	n/a	n/a	n/a	6

LGD: loss given default

Table 5: Results of Default of Individual Banking Sectors and Groups

Shocks	Minimum CAR % of Remaining Banks	Maximum CAR %	Sector CAR %	Number of Banks with CAR < 8%
Baseline	15.41	22.76	19.05	0
Europe	14.77	22.61	18.79	0
Canada	14.88	20.98	17.02	0
USA	11.88	22.76	17.34	0
Caribbean	9.04	22.76	17.20	0
HQ & Branches	8.45	21.28	15.50	0
HQ & Branches (Breaking Point)[6]	n/a	n/a	n/a	6

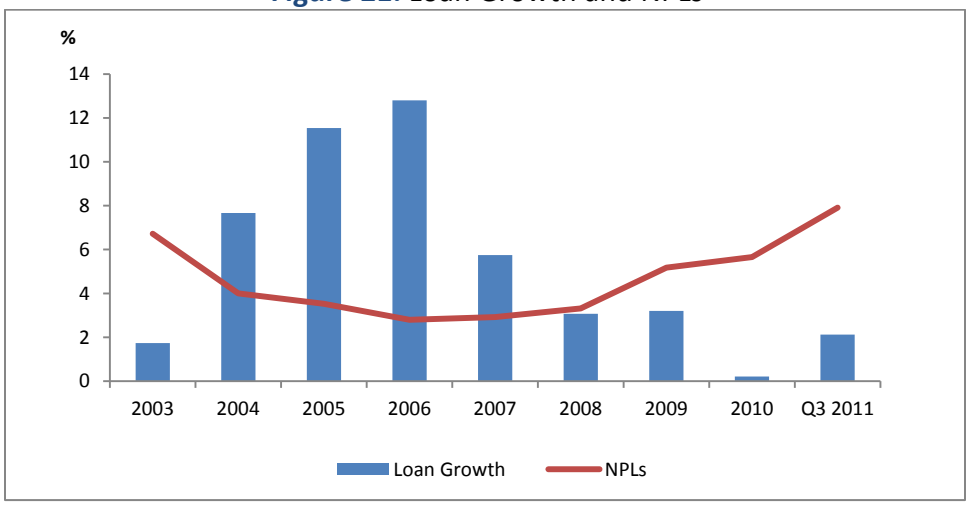
[6] Achieved with 7% more exposure to international affiliates that record a loss and a 10 percentage point increase in the proportion of a bank's deposits subjected to withdrawals after a local failure.



4. Nonbanks

Nonbanks tend to focus on consumer credit and they have grown significantly since the 1970s. Currently, there are thirteen nonbanks with assets approximately equal to 23% of GDP ($2 billion). At September 2011, these thirteen nonbanks comprised nine finance companies, three trust companies and one finance & trust company licensed under Part III of the Financial Institutions Act (FIA). Five of these companies are affiliated with commercial banks; one is a subsidiary of a credit union and the remaining seven are owned by other financial and non-financial service companies. The finance companies fund their operations from time deposits, and provide loans mainly to assist with property and vehicle purchases. Trust companies offer varied services - from wills and estate planning services, to mutual funds, trading and brokerage services. Apart from the purchase of CLICO Mortgage & Finance Corporation by the Barbados Public Workers Co-operative Credit Union and its rebranding as Capita Financial Services Inc., little has changed in this sector with regard to its ownership, structure or lines of business.

Figure 21: Loan Growth and NPLs



Source: Central Bank of Barbados

Over 60% of the assets of nonbanks are loans, with almost half of these being residential mortgages. Non-bank financial institutions held on average 15% of total loans in the financial system over the last decade. Credit delinquency of non-bank financial institutions has been generally below that of the commercial banks: NPLs reached 7.9% by September 2011, up from 5.7% at the end of 2010 (Figure 21).

On the liabilities side, a substantial part of their funding is in the form of time deposits of varying maturities. Much of the funding for nonbanks is in the form of term deposits placed by other financial institutions including their parent institutions. These provide a satisfactory degree of stability for the funding base. The significant level of retained

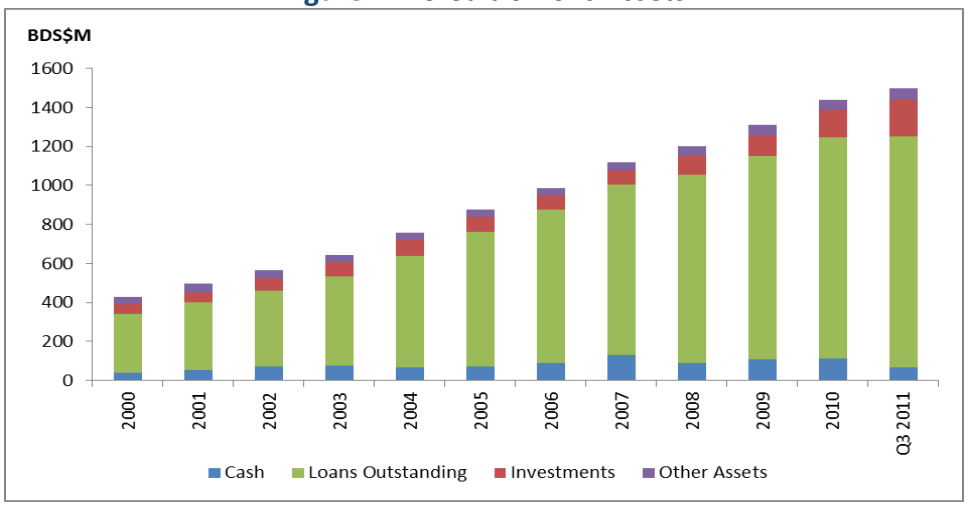
earnings (more than three times the paid-up capital) is a testimony to their profitability over the years.

For the first nine months of 2011, nonbanks' net income declined by 11% ($3 million) to $26 million when compared to the similar period in 2010. This was primarily the result of higher non-interest expenses, which increased by $2.1 million, and a $5 million increase in provisions for loan and security losses. The ROA and ROE both declined from 2.2% and 10.3% at September 2010 to 1.9% and 8.7% respectively, for the same period in 2011. The loan portfolio deteriorated with gross classified debt increasing by 44% ($33 million) to $108 million at September 2011. Consequently, NPLs rose to 7.9% from 5.7% at September 2010.

5. Credit Unions

The credit union sector has shown substantial resilience in loan growth over the past few years. However, weaker economic conditions between 2008 and 2011 have resulted in a slowdown in the average annual expansion of assets compared to the average rate of growth between 2000 and 2007 (Figure 22). Growth in loans was significantly slower but the deposits of members continued to grow rapidly - by 14% in 2010 and 16.5% over the period January to September 2011. Nonperforming loans in credit unions also picked up, but at a slower pace than for commercial banks.

Figure 22: Credit Unions Assets

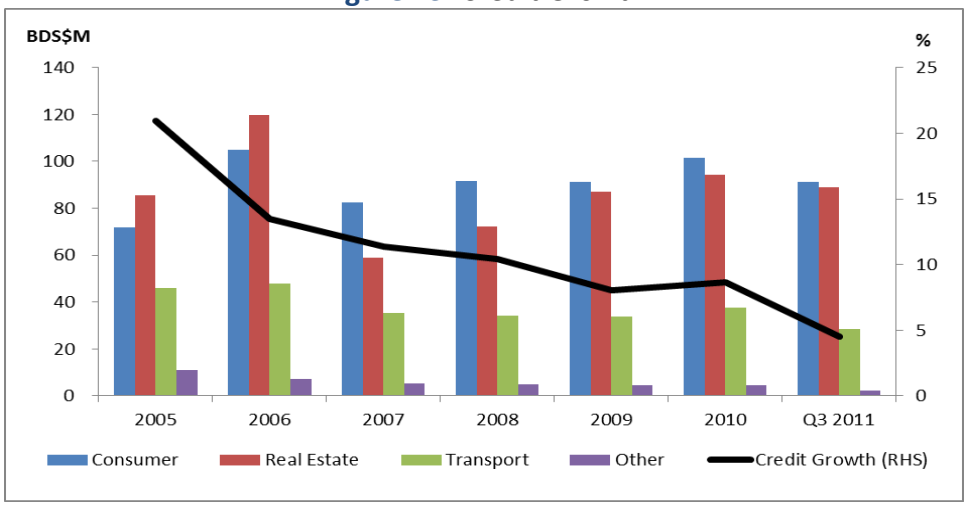


Source: Co-operatives Department

Loans have consistently represented almost 80% of total assets in credit unions, with concentrations primarily in consumer credit and real estate (Figure 23). The residential mortgage category gained prominence in overall credit growth, jumping from about 25% of total loans in 2000 to approximately 45% at the end of quarter three in 2011, at

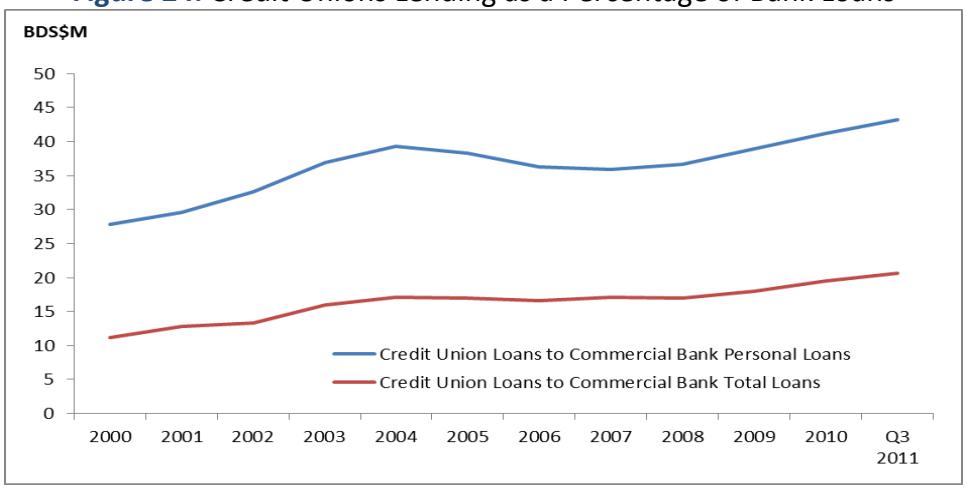
an average rate of 14% per annum. Figure 24 shows that over the last decade credit unions have gained some ground on commercial banks as suppliers of credit to private individuals. Over the same period, credit unions' total loans as a percentage of banks' total loans doubled (from 10% to 20%) and moved from approximately 28% of personal loans to about 45% in the third quarter of 2011.

Figure 23: Credit Growth



Source: Co-operatives Department

Figure 24: Credit Unions Lending as a Percentage of Bank Loans



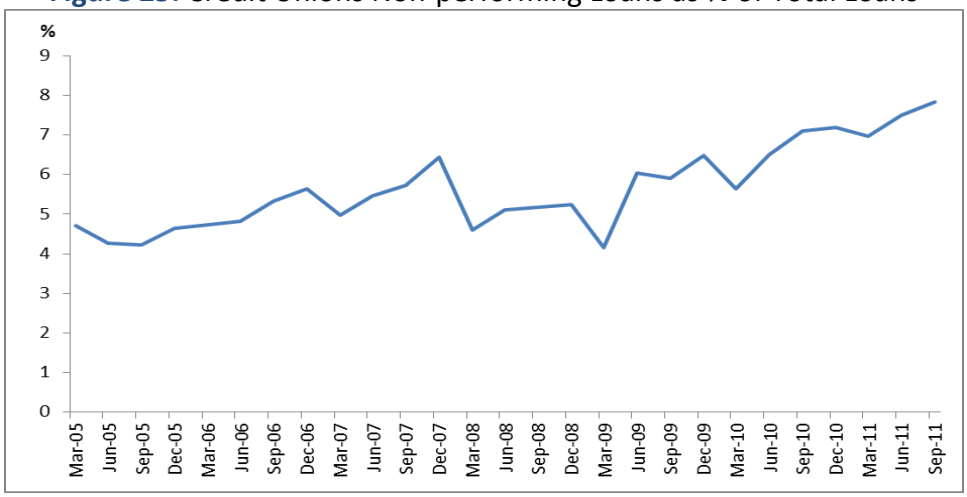
Source: Central Bank of Barbados' Calculations

At the end of the third quarter of 2011, there were 35 credit unions in Barbados with a combined membership of 155 thousand. The total assets of the sector stood at $1.5 billion, compared to $1.3 billion at the end of 2010. Four of the institutions account for more than 85% of total assets, membership, loans and deposits.

Deposits stood at $1.1 billion at the end of September 2011, $154 million (16.5%) above the amount recorded at the end of 2010. The annualised ROA as at September 2011 was 3.2%, following returns of 3.5% and 4.1% in the previous two years.

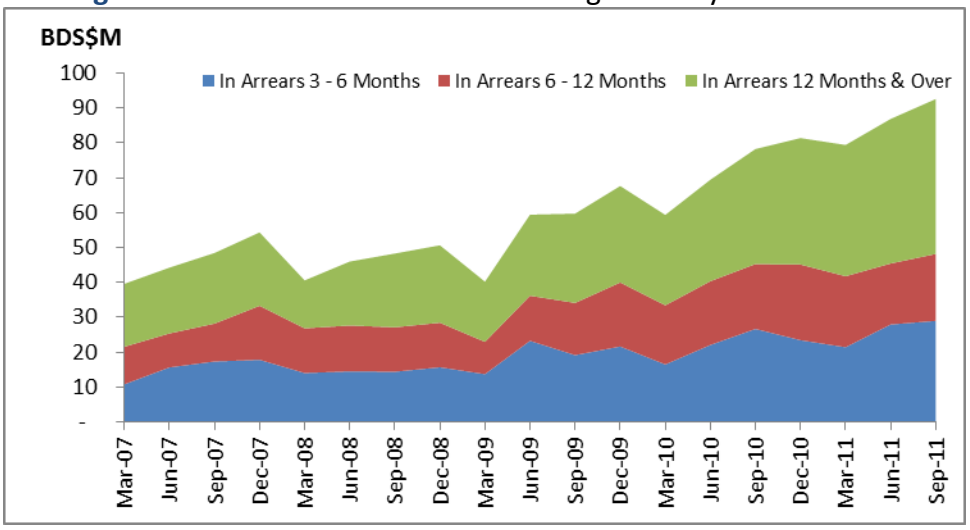
At September 2011, the ratio of non-performing loans to total loans held by credit unions was approximately 7.8%, above the 7.2% at year-end 2010 and the 6.5% value at the end of 2009 (Figures 25 and 26). The NPL ratio of the four largest credit unions ranges from 5% to 10%.

Figure 25: Credit Unions Non-performing Loans as % of Total Loans



Source: Co-operatives Department

Figure 26: Credit Unions Non Performing Loans by Classification



Source: Co-operative Department

6. Insurance Companies

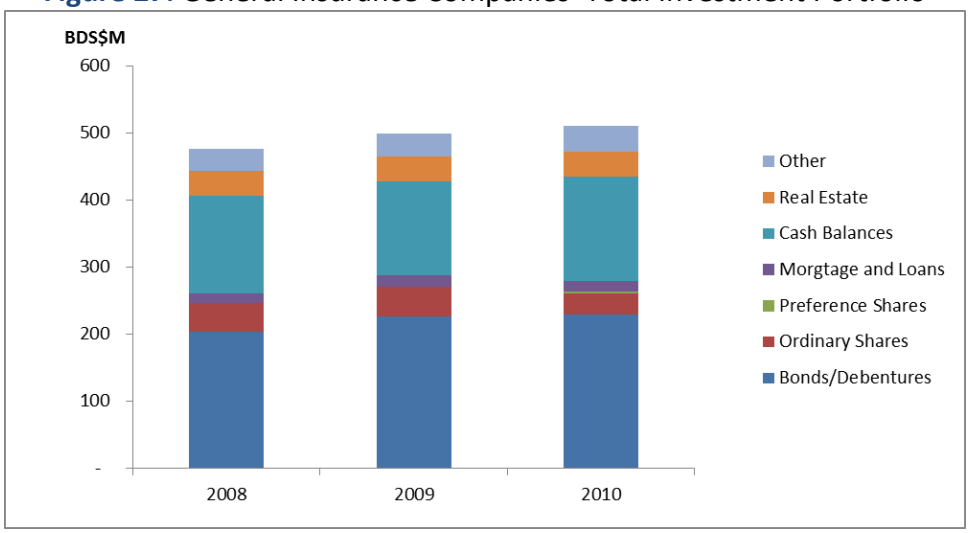
The insurance industry in Barbados has undergone significant challenges over the past two to three years, beginning with the difficulties experienced by the CL Financial Group's local subsidiaries, and compounded by the global and domestic economic downturns. The profitability of the thirty companies operating in the sector in 2009 and 2010, was affected by reduced premiums in 2010, as increased unemployment put pressure on policyholders' ability to maintain payments. In addition, claims in the general insurance subsector increased over the period, due to torrential rains and floods, and the passage of Tropical Storm Tomas. Unstable international economic conditions, combined with generally lower global and domestic interest rates, have also led to those companies with significant worldwide investments experiencing reductions in their earnings from those assets.

General Insurance

The general insurance sector continued to hold its own during 2010, despite the challenging domestic economic environment being driven by events in the global economy. However, the sector has traditionally shown steady growth over the past forty years, with little evidence of significant reductions in asset growth during recessionary periods.

Data was gathered on a sample of the three largest general insurance companies, representing approximately two-thirds of the sector's investment assets in 2008. They recorded asset growth of 12.5% between 2009 and 2010, after remaining flat over a year earlier. The significant rebound was led primarily by appreciable surges in cash (55.2%), fixed assets, particularly real estate holdings (26.6%) and Government securities (12.6%), to leave total assets at $546.6 million at year-end 2010. Total shareholders' equity grew 10% over 2009, an improvement on its 3.6% expansion between 2008 and 2009, as increased profitability boosted retained earnings. Total liabilities also increased for the year, as major categories (funds from motor vehicles business and claims admitted but not paid) both recovered from significant declines over 2008.

Figure 27: General Insurance Companies' Total Investment Portfolio



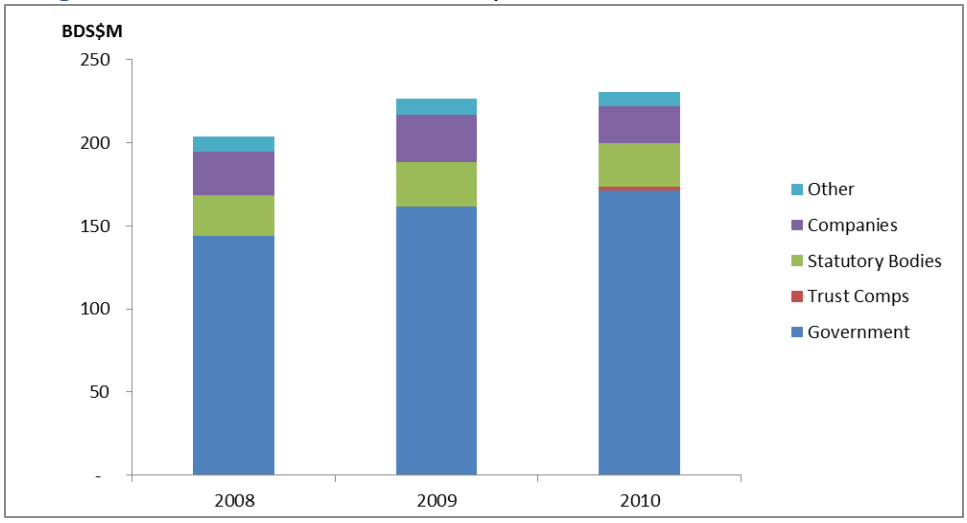
Source: Selected Insurance Companies

General insurance companies have traditionally invested much of their funds in corporate bonds and debentures, primarily government-issued securities (Figure 27), although a substantial amount is also held in cash and fixed deposits with commercial banks. Growth in these assets has continued at a moderate pace over the last three years, with total investment assets moving from $474.4 million in 2008 to $499.4 million (5.3% growth) in 2009, and increasing to $511.2 million, a further 2.4% at year-end 2010. This continued improvement has been as the result of increases in both cash and fixed deposits, and bonds and debentures over the three years, which has been offset by a significant decline in ordinary share holdings. The former rose over the three years by $11.0 million (7.6%), to finish 2010 at $156.3 million, while ordinary share holdings fell by over 25% from $43.5 million to $31.2 million.

Bonds and debentures continue to represent a substantial portion of general insurance investments. The majority of these securities are held in government debentures, primarily those of the Government of Barbados (Figure 28a). However, there is still significant exposure to corporate bonds and statutory corporations, again mostly within Barbados.

Over the period 2008 to 2010, general insurance companies' bond portfolios increased by $23.1 million over the first two years, and again by $3.7 million into 2010, both times driven by movements in government debenture holdings, but offset slightly in 2010 by a 22.8% decline in corporate bond holdings. The other three categories have remained relatively stable over the period, with little change in the distribution of the portfolios.

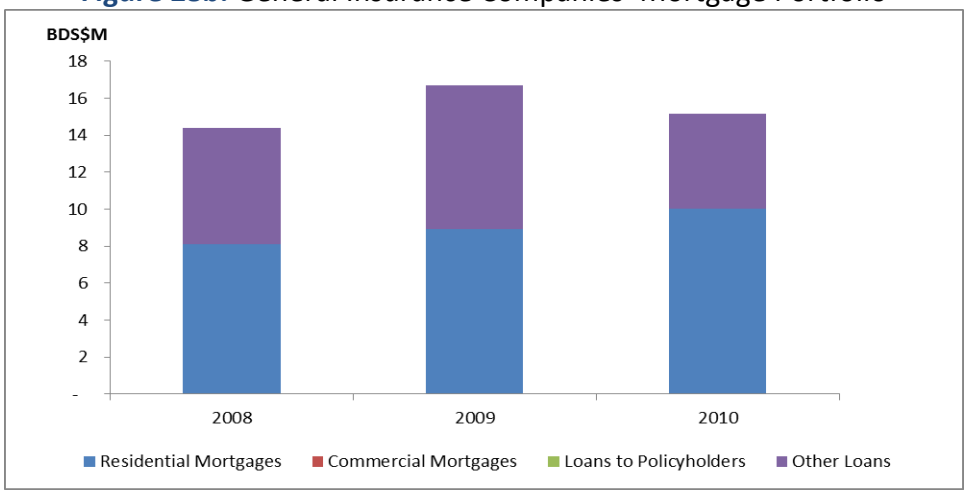
Figure 28a: General Insurance Companies' Bond/Debenture Portfolio



Source: Selected Insurance Companies

On the other hand, insurance companies' mortgage books have remained stable since 2008, despite some growth in residential mortgages. Other loans have shown the largest degree of fluctuation, and a $2.6 million decline between 2009 and 2010 drove mortgages from $16.7 to $15.2 million, over the same period (Figure 28b).

Figure 28b: General Insurance Companies' Mortgage Portfolio

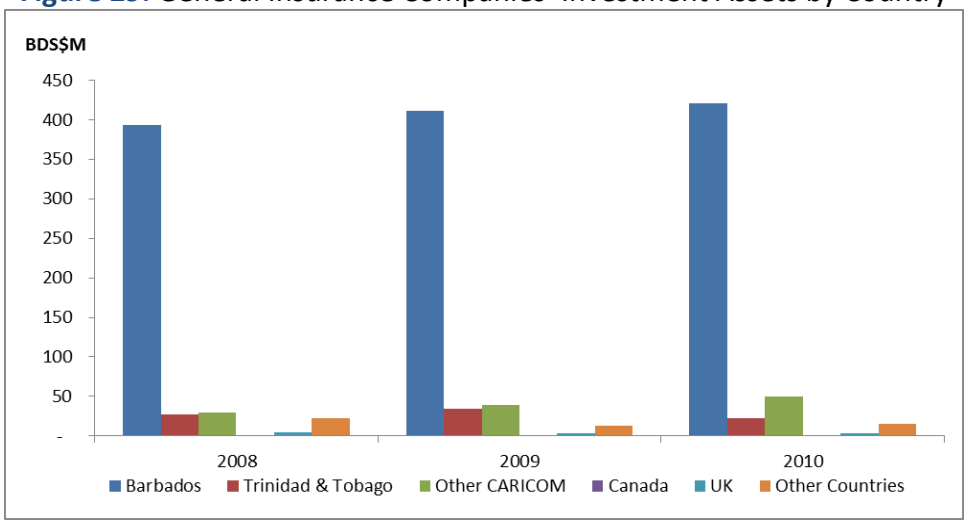


Source: Selected Insurance Companies

General insurance companies' performances have seen limited direct effect from their cross-border exposures, given their distribution of investment assets worldwide is limited (Figure 29). Since 2008, the sub-sector has maintained its relative exposure to regional and international markets at 18%, but the distribution of this exposure has shifted somewhat. Subsequent to 2008, holdings of Trinidadian ordinary shares have

fallen quite appreciably (down 91%), reducing exposure to that country from 6% to 4% in 2010, after the fall-out from the difficulties experienced by CL Financial. More liquid funds are now being held in other CARICOM nations, with funds in other countries also falling since the onset of the 2007/2008 global financial crisis.

Figure 29: General Insurance Companies' Investment Assets by Country



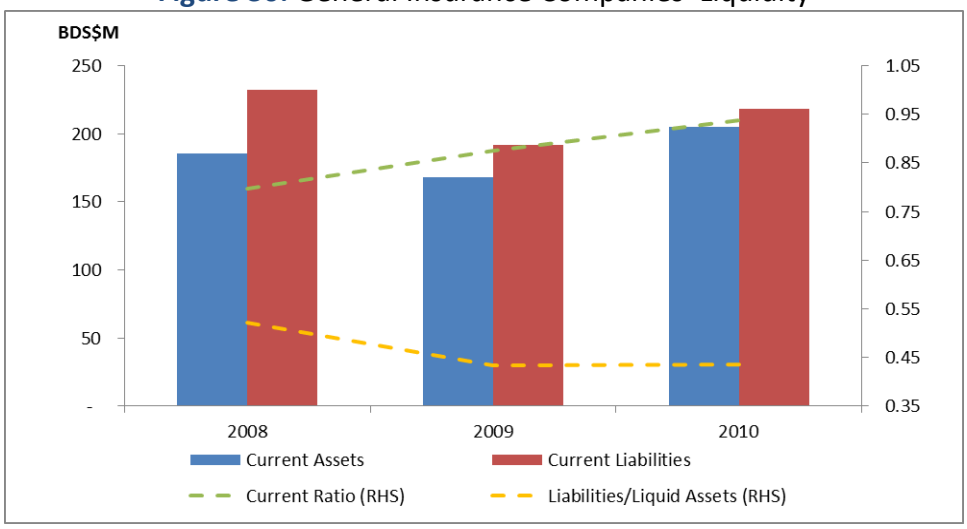
Source: Selected Insurance Companies

The proportion of cash and fixed deposits funds in the total investment assets of general companies has risen over 2009 levels from 28.1% to 30.6% in 2010, returning to the 2008 levels. Nevertheless, in keeping with the long-term nature of insurance activity and assets, these companies' current ratios[7] remained below 1 over the three years under review. A fall in current liabilities between 2008 and 2009 saw the ratio move from 0.80 to 0.88, with further improvement in 2010, to 0.94, representing generally improving short-term liquidity positions (Figure 30). Nonetheless, the ratio of liabilities to liquid assets[8] remained at 0.5 or less over the period, continuing on its downward trend to finish 2010 at a more liquid position of 0.4.

[7] Current ratio: Current assets/current liabilities.

[8] Liabilities/Liquid assets: (Current liabilities less reinsurance recoverables for unpaid claims)/(Current Assets + Investment assets excluding real estate).

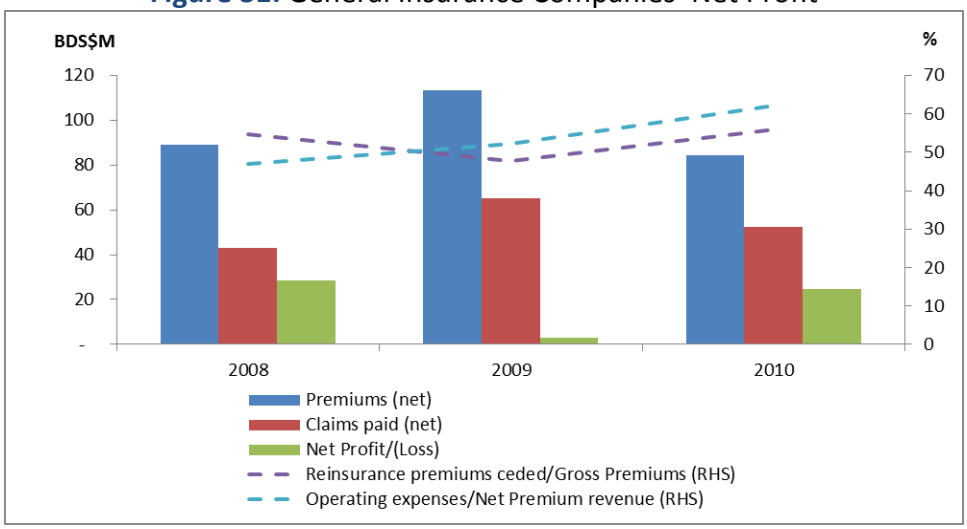
Figure 30: General Insurance Companies' Liquidity



Source: Selected Insurance Companies

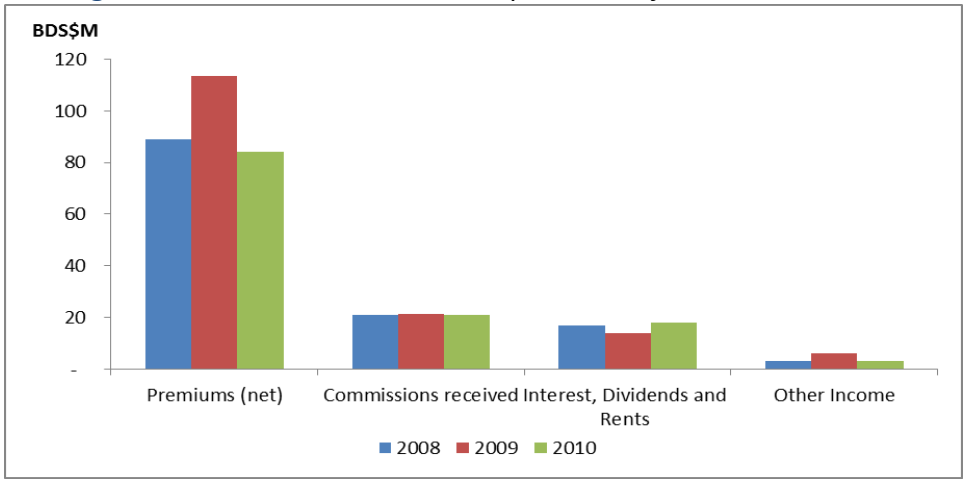
Reduced net premiums, due to the slowing economic conditions, have been more than offset by a large decline in companies' expenditures since 2009, resulting in profits for 2010 amounting to $24.8 million, up 700% for the year (Figure 31). Net premiums fell $30 million (25.6%) from 2009 levels, as over half (55.9%) of total gross premiums are being ceded to pay reinsurance premiums. Nonetheless, income from interest, dividends and rents have cushioned the reduction in revenue (Figure 32), highlighted by improved investment yields and return on assets (ROA) ratios, from 4.33% and 0.63% in 2009 to 4.94% and 4.53% respectively in 2010, still some way below the 5.52% and 5.87% respectively, recorded in 2008.

Figure 31: General Insurance Companies' Net Profit



Source: Selected Insurance Companies

Figure 32: General Insurance Companies' Major Income Sources



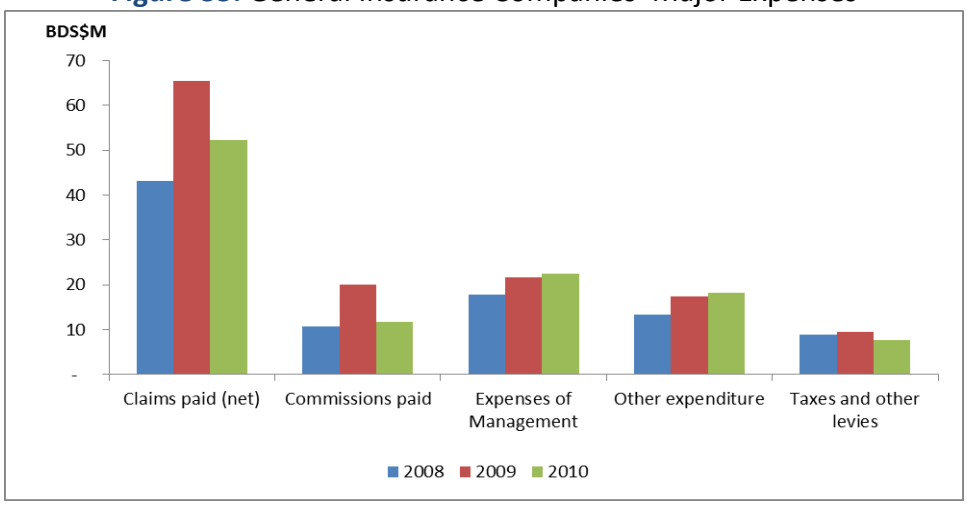
Source: Selected Insurance Companies

Declines in expenditure have been the major driver of increased profitability in 2010. While claims paid continued to be above 2008 levels, they experienced a reduction of 20.1% ($13.1 million) between 2009 and 2010; claims outstanding also dropped significantly (14.1%), a magnitude of almost $20 million (Figure 33). The changes in premiums and claims have been met with increasing claims[9] and combined[10] ratios, rising from 48% and 96% to 62% and 124% respectively, between 2008 and 2010 (Figure 34). While the claims ratio remains below 100%, representing a company's ability to meet its policyholders' benefits out of its receiving premiums, the combined ratio exceeding 100% and an increasing trend in both ratios suggests a tightening of business for insurance companies, as well as an increasing dependence on additional sources of income.

Operating expenses have risen over the past three years, as suggested by the operating expenses/net premium revenue ratio. Almost two-thirds of net premium revenue (62.2%) is spent in operating expenses, up from 52.1% and 47.1% in 2009 and 2008 respectively. Reductions in amounts paid in commissions were offset by the decline in premiums received, and the situation was exacerbated by increases of 4.2% and 4.7% in management expenses and other expenditure respectively.

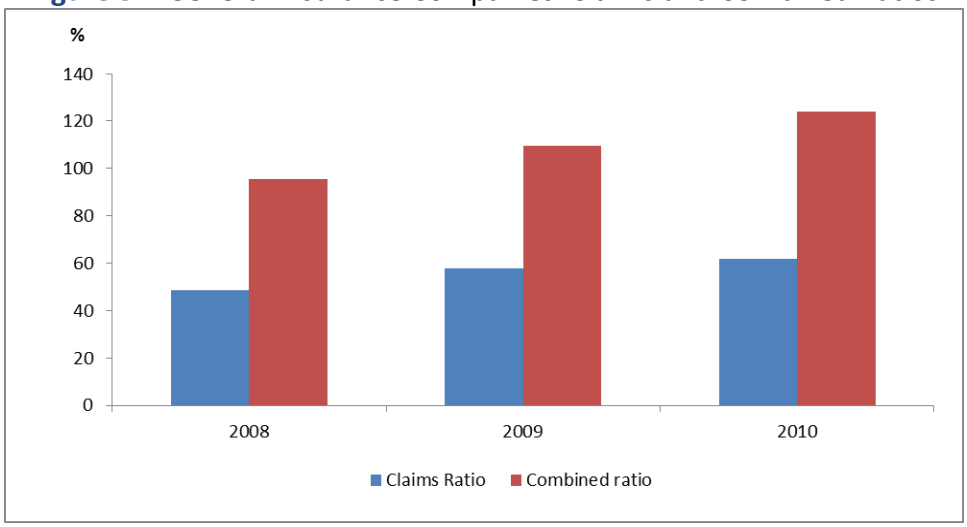
[9] Measured as net claims divided by net premiums.
[10] Measured as (operating expenses plus net claims)/net premiums.

Figure 33: General Insurance Companies' Major Expenses



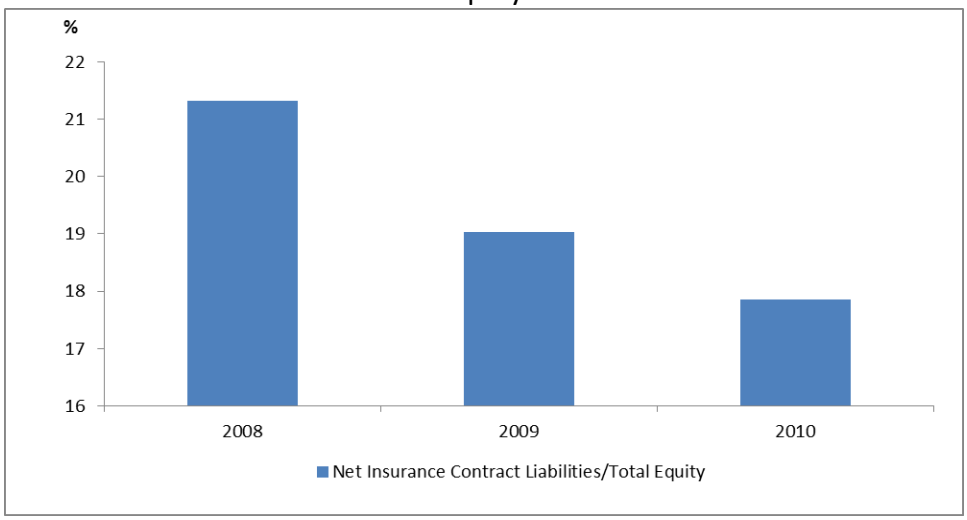
Source: Selected Insurance Companies

Figure 34: General Insurance Companies' Claims and Combined Ratios



Source: Selected Insurance Companies

Figure 35: General Insurance Companies' Net Insurance Contract Liabilities/ Total Equity Ratio



Source: Selected Insurance Companies

Given the uptick in profitability experienced between 2009 and 2010, general insurance companies' capital increased appreciably, mostly by way of increased retained earnings. Nevertheless, a surging asset base reduced the capital-to-asset ratio from 43.8% to 42.8% over this period, in line with the increase in companies' long-term debt to equity ratio from 38.1% to 40.2%. The underwriting leverage ratio[11] mirrored that of the debt-to-equity ratio between 2008 and 2009, but fell significantly from 53.2% in the latter year to 36.0% at year-end 2010. Despite the concerns of 2009 and an increasing reliance on longer term debt financing for operations (mostly due to increases in pension plan liabilities), these ratios, and a declining net insurance contract liabilities[12] to total equity ratio (19.0% to 17.8% between 2009 and 2010) are still representative of a well-capitalised industry (Figure 35).

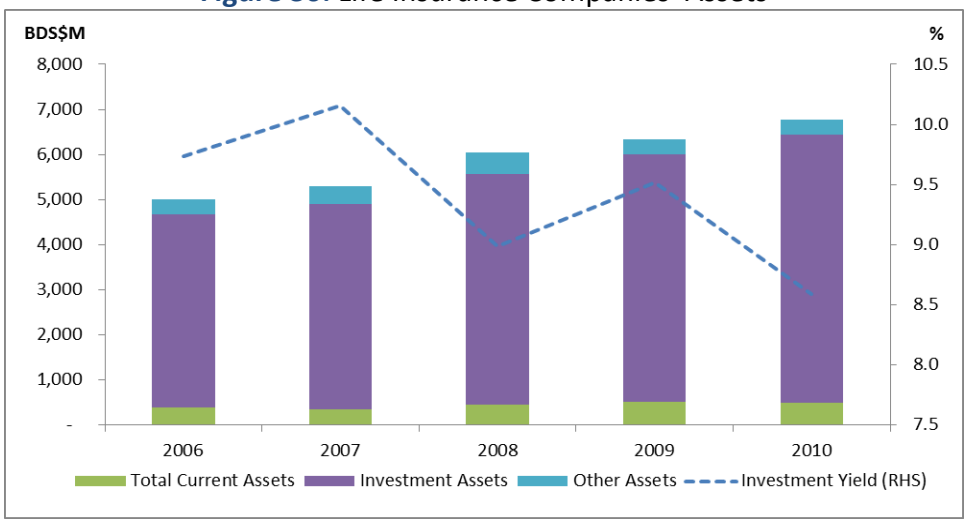
Life Insurance

The life insurance subsector fared less well than the general companies in 2010, with net profits of the two largest companies falling below 2009 levels. Premiums for the subsector were down, while the value of claims paid for the year stagnated. Investment income and total income also fell. CLICO's balance sheet shrunk in 2009 and 2010, but other companies have seen some increase in their business.

[11] Net premiums divided by total equity. This measures the capital supporting the earnings of the insurance company.
[12] Total insurance funds exclusive of pension liabilities.

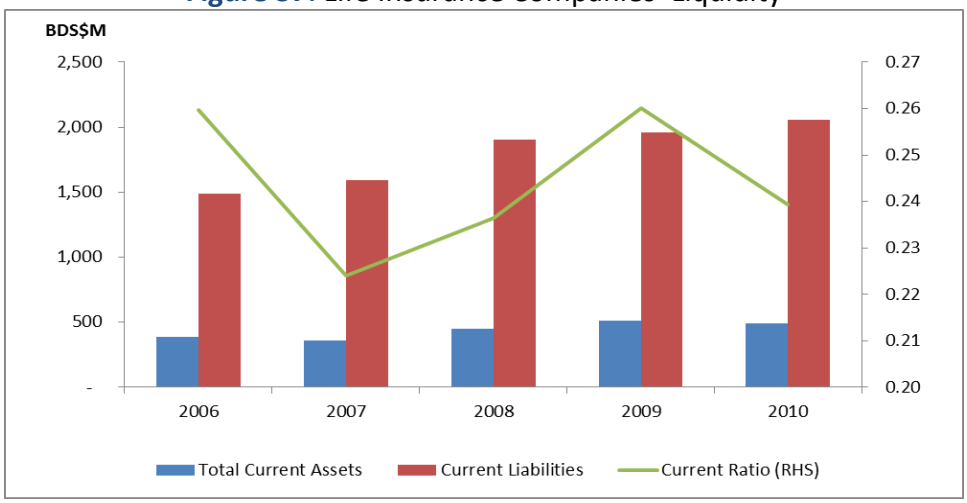
Despite the troubling year, life insurance companies' investment and total assets continued to grow. As at year-end 2010, total assets rose by 6.8% over 2009 levels, to finish at $6.8 billion. Total investment assets grew by $443.8 million, while the average return on investment fell from 9.5% to 8.6% between 2009 and 2010 (Figure 36).

Figure 36: Life Insurance Companies' Assets



Source: Selected Insurance Companies

Figure 37: Life Insurance Companies' Liquidity

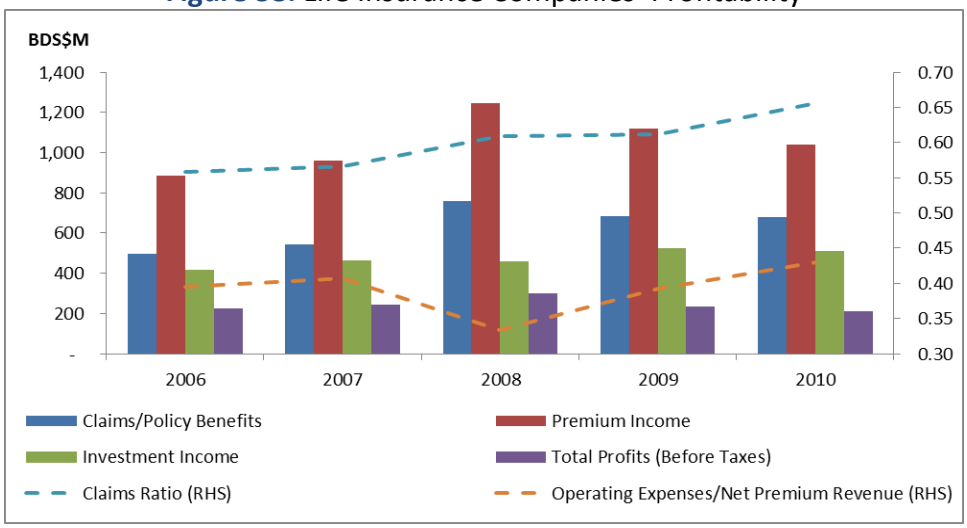


Source: Selected Insurance Companies

Life insurance companies' liquidity positions also reflect the long-term nature of their business model with a current ratio averaging 0.24 between 2006 and 2010 (Figure 37). The current ratio ended 2010 at that level, down from 0.26 in 2009. Current liabilities, particularly deposits and securities, expanded by approximately $95.1 million, with current assets remaining practically constant.

Net profits fell by 9% between 2008 and 2010 (Figure 38), with premium income and investment income declining by 7.1% and 2.4% respectively. This led to a drop in the ROA from 3.7% to 3.1%, down from 5.0% in 2008. The ratio of reinsurance premiums to gross premium revenue remained low relative to that of the general insurance industry at 14%, the lowest since 2005. The sub-sector's claims ratio rose from 0.61 to 0.66. The combined ratio for the industry reached 100% in 2009, standing at 109% for the year 2010. Operating expenses moved from a third of net premium revenues in 2008 to 43% in 2010.

Figure 38: Life Insurance Companies' Profitability

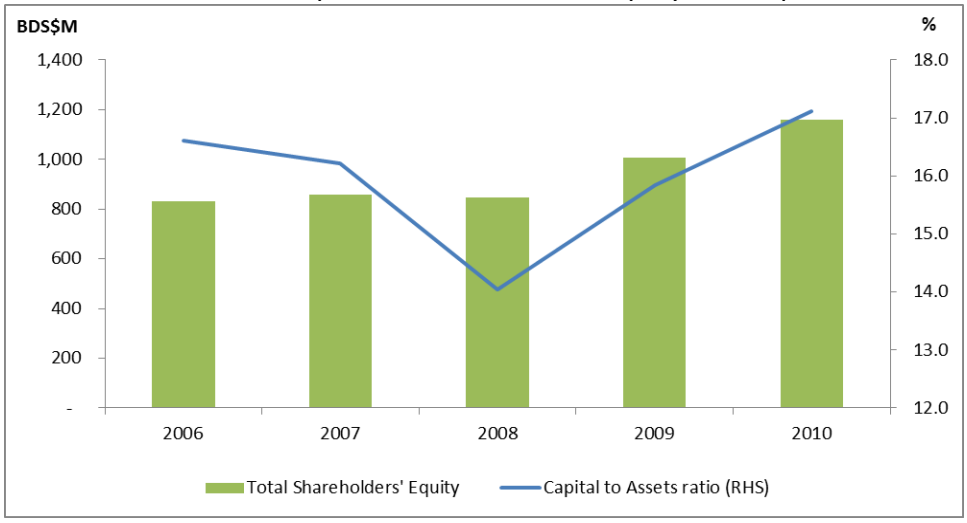


Source: Selected Insurance Companies

Lower profitability did not prevent life insurance companies from accumulating additional shareholders' equity, as all segments of this category experienced moderate growth. Therefore, the capital-to-assets ratio increased appreciably from 15.9% in 2009 to 17.1% in 2010, and the long-term debt-to-equity ratio of the sub-sector decreased from 336.0% to 307.1% over the same two years, as additional buffers were created amidst the depressed global, regional and domestic economic environment (Figures 39 and 40). The long-term maturity structures of life insurance companies explain the very high leverage ratio (long-term debt-to-equity). However, the underwriting leverage ratio was relatively low at 90% in 2010, down from 147% and 111% in 2008 and 2009, respectively.[13]

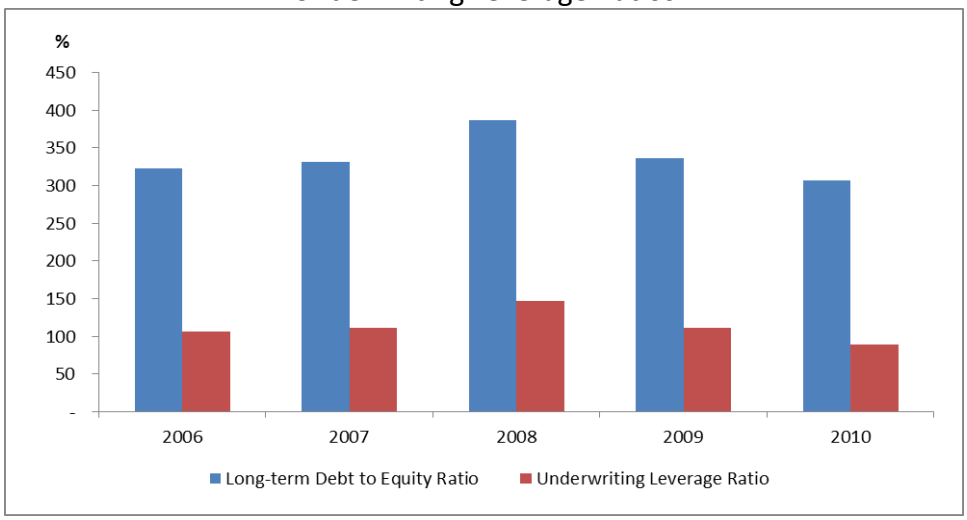
[13] An underwriting leverage ratio of less than 100% illustrates that the level of insurance risk relative to capital buffers is reasonably low in the sector.

Figure 39: Life Insurance Companies' Shareholders' Equity and Capital to Assets Ratio



Source: Selected Insurance Companies

Figure 40: Life Insurance Companies' Long-term Debt to Equity and Underwriting Leverage Ratios



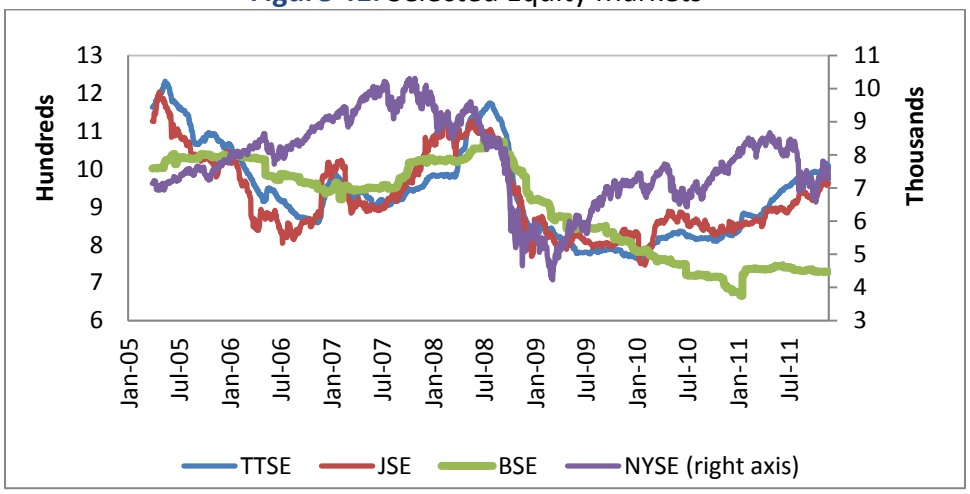
Source: Selected Insurance Companies

7. The Equity Market

The Barbados Stock Exchange (BSE) index remained flat during 2010, in contrast to the indices for the Trinidad and Tobago Stock Exchange (TTSE), the Jamaican Stock Exchange (JSE) and the New York Stock Exchange (NSYE), which all recovered from the 2008-2009 slump (Figure 41). The slight jump (8.4% increase) observed on the BSE in January reflected the completion of the purchase of Barbados Light and Power Holdings (BL&P) by Emera Inc. Currently there are 26 listed companies on the BSE, two of which are on the junior market and four trading across the region. For 2011, 16.2 million shares,

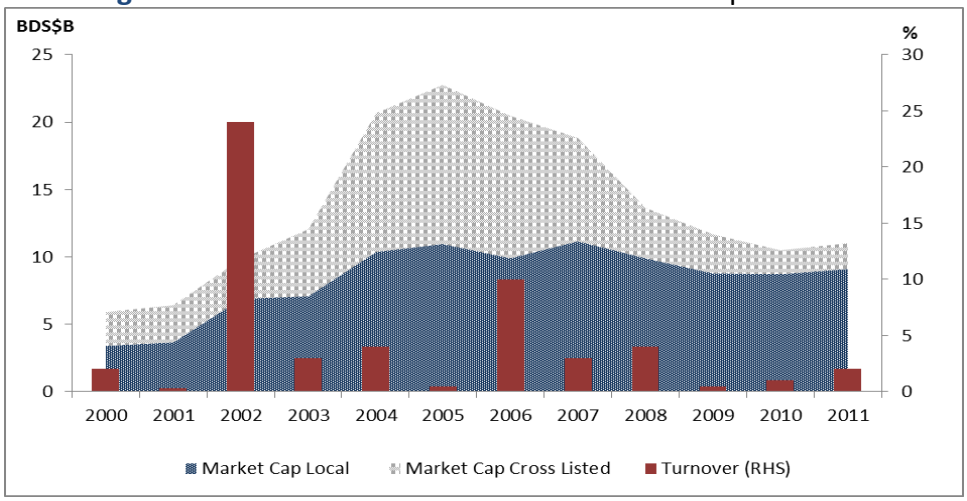
valued at $238 million, were traded. The number of trades was 895, with an average trade size of eighteen thousand. Four of these trades however, were for more than 500,000 shares. The Emera transaction alone accounted for $188 million of the value traded. Total market capitalisation stood at 130% of GDP compared to 125% in December 2010 (Figure 42).

Figure 41: Selected Equity Markets[14]



Source: TTSE, JSE, BSE and NYSE Stock Exchanges

Figure 42: Stock Market Turnover and Market Capitalisation



Source: Barbados Stock Exchange and Central Bank of Barbados' Calculations

[14] The Jamaican Composite Index was scaled down (by 100).

Activity on the BSE remained quite low as reflected by the stock market turnover ratio,[15] especially when compared to the US (Table 6). The spike in 2002 and 2006 on the BSE reflected extraordinary transactions associated with mergers and acquisitions. The turnover ratio for 2011 was 2.1% and the total market capitalisation was $11.5 billion, which reflected an 8% increase in investors' wealth.

Table 6: Turnover Ratios for Selected Countries

	2006	2007	2008	2009	2010
Argentina	6.4	9.9	19.3	5.4	4.6
Barbados	10.1	3.2	3.9	0.7	2.1
Brazil	42.9	56.2	74.3	73.9	66.4
Canada	81.1	84.7	111.1	92.4	71.1
Chile	18.5	23.0	21.2	22.0	19.7
Jamaica	2.3	2.9	3.6	1.8	3.3
Malta	5.9	1.8	1.6	0.7	1.2
Trinidad & Tobago	2.6	2.3	2.6	2.0	1.2
USA	182.8	216.5	230.2	348.6	189.1

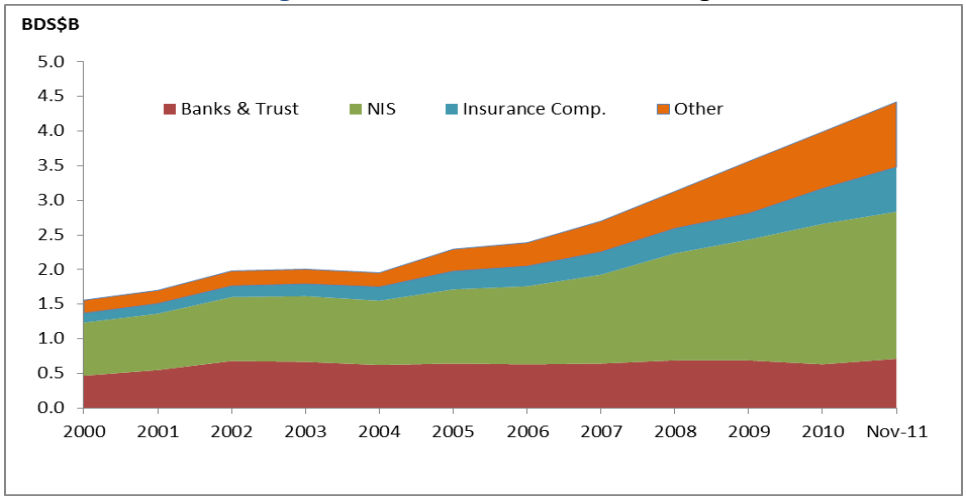
Source: World Bank

8. Debt Securities

The domestic bond market primarily consists of Government's debt securities. During the year, eight new Government bonds carrying a total face value of $550 million were issued. Of this, $486.7 million was allotted, thus bringing the total stock of outstanding debentures at the end of the year to $ 4,250 million. Since the early 1990s the National Insurance Scheme (NIS) has played a major role in providing financing to government and currently holds about 50% of total debentures outstanding (Figure 43).

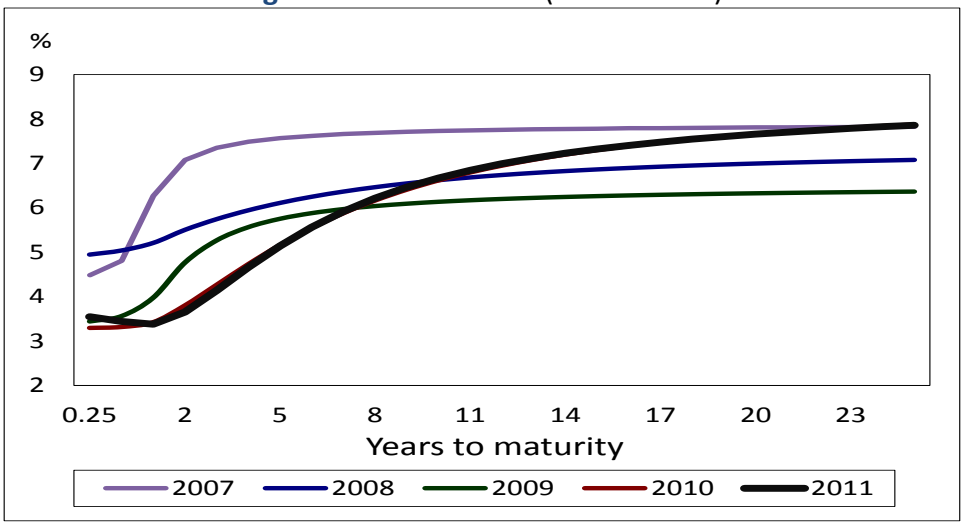
[15] Turnover ratio is the total value of shares traded during the period divided by the average market capitalisation for the period.

Figure 43: Debentures Outstanding



Source: Central Bank of Barbados

Figure 44: Yield Curves (2007 – 2011)



Source: Central Bank of Barbados' Calculations

Barbadian yield curves have become less steep over the recent past (Figure 44). Short-term returns continue to be low, driven by low treasury bill rates but longer term yields for 2011 are comparable to those of 2010.

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