

Financial Stability Update
August 2013

CENTRAL BANK OF BARBADOS

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Abbreviations

Abbreviation	*Meaning*
CAR	Capital Adequacy Ratio
CBB	Central Bank of Barbados
CIBC	Canadian Imperial Bank of Commerce
DTI	Deposit Taking Institution
FIA	Financial Institutions Act
FSC	Financial Services Commission
FSI	Financial Stability Indicator
GDP	Gross Domestic Product
NPL	Non-performing Loan
ROA	Return on Assets
USA/US	United States of America

Preface

This is the second update of the Central Bank of Barbados' Financial Stability Report (FSR), 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, the assessment of vulnerabilities and the initiation of policies to increase the resilience of the system. 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, insurance companies, non-bank financial institutions, credit unions, the activities of the Barbados Securities Exchange and issues and redemptions of government securities. This update analyses a range of financial stability indicators for banks and other financial institutions. For depository institutions, financial forecasts are used to assess expectations for capital adequacy and the quality of credit. Progressive stress tests are also used to test for possible contagion among banks and banks' exposures to financial institutions abroad.

The full FSR is published annually and this is supplemented with a mid-year update. Like most of the Central Bank's publications, the FSR is available exclusively online.

Financial Stability Update

(September 2012 to March 2013)

1. Overview

Since September, the financial system has remained generally stable and well capitalised. Levels of liquidity across all financial institutions continued to be high and entities were generally profitable, though profit margins continued to be compressed. While credit quality declined further at banks, credit unions and non-bank financial institutions experienced no growth in their non-performing loans. For banks, this deterioration was mainly in the personal mortgage and real estate sectors.

The insurance industry continues to gradually expand, though both the life and general insurance premiums have been falling, as policy-holders grapple with the difficult economic situation.

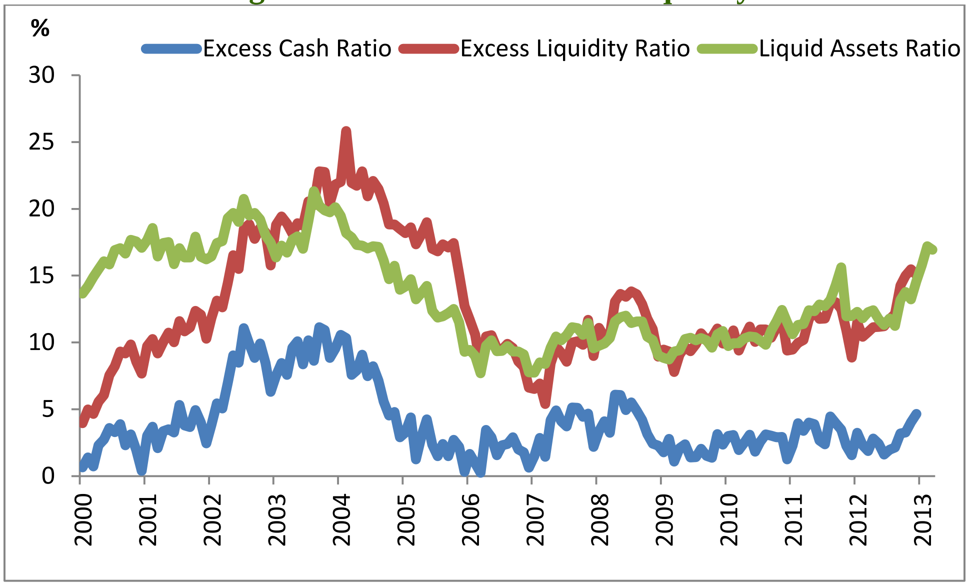
In June 2013, the Judicial Manager presented its final recommendations to the High Court of Barbados in respect of a solution for CLICO. A plan has been advanced for the restructuring of CLICO, the objective of which is to ensure that there is no loss of the principal amount for an individual policy-holder. Under the plan, the principal balances of all individually-owned EFPA[1] policies will be converted into 10 year annuities and, along with the traditional insurance policies, will be transferred to a new company which will then be offered for sale to another insurance company.

2. Commercial Banks

Banks have continued to experience rising liquidity levels as deposits have grown modestly, while loans declined marginally. The increased liquidity has been shared between interest bearing securities and non-interest bearing reserves at the Central Bank of Barbados (CBB) (Figure 1).

[1] Executive Flexible Premium Annuity

Figure 1: Commercial Banks Liquidity

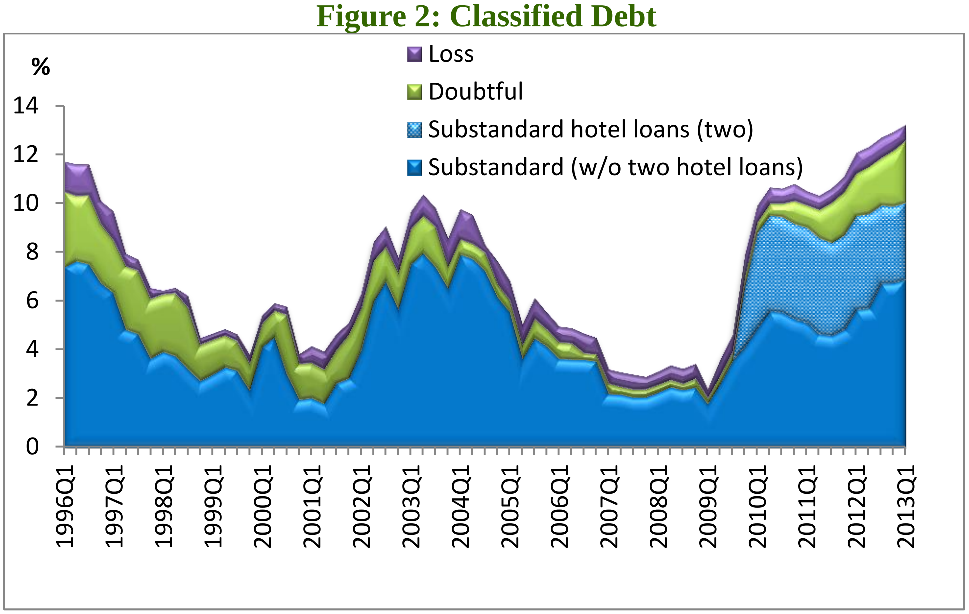


Source: Central Bank of Barbados

Total net external assets improved from a deficit of $296 million in September 2012 to a deficit of $183 million in March 2013, as a result of a reduction in the deposits of non-residents.

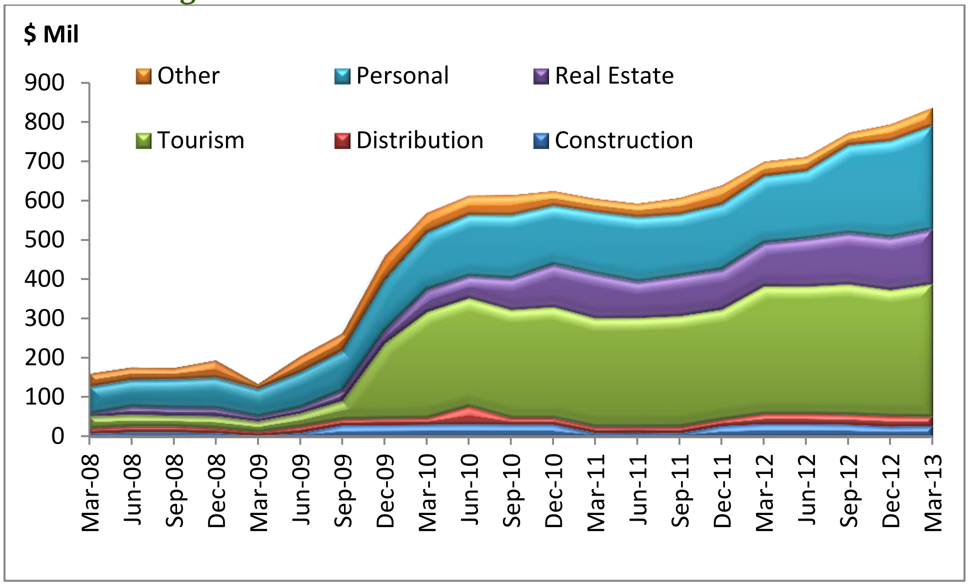
Loan quality continued to weaken due primarily to increased delinquencies in the residential mortgage and real estate sectors and, to a lesser extent, the tourism sector. The NPL ratio grew from 12.7 percent in September, to 13.9 percent in March 2013 (Figures 2, 3 and 4).

Figure 2: Classified Debt



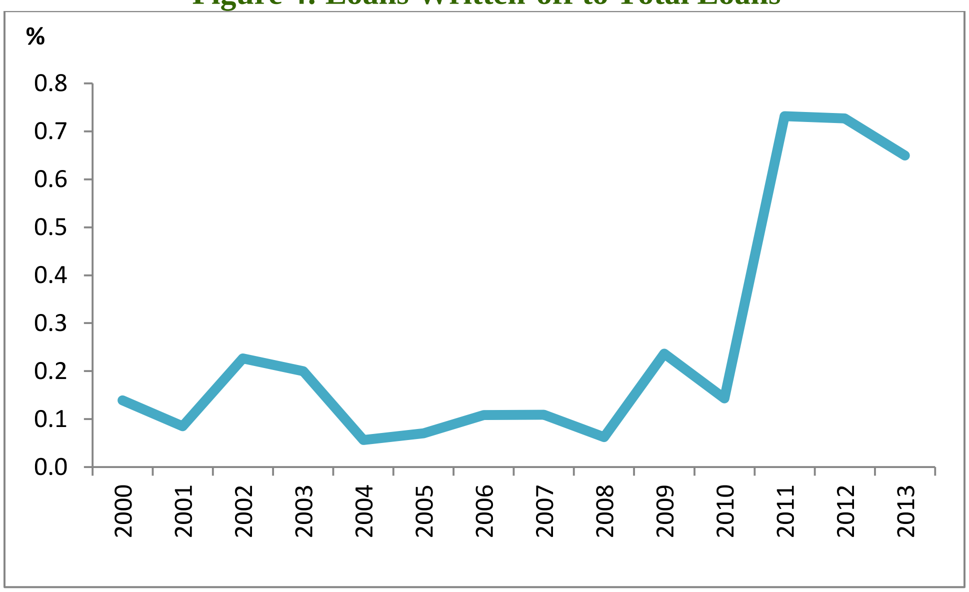
Source: Central Bank of Barbados

Figure 3: Sectoral Distribution of Classified Debt



Source: Central Bank of Barbados

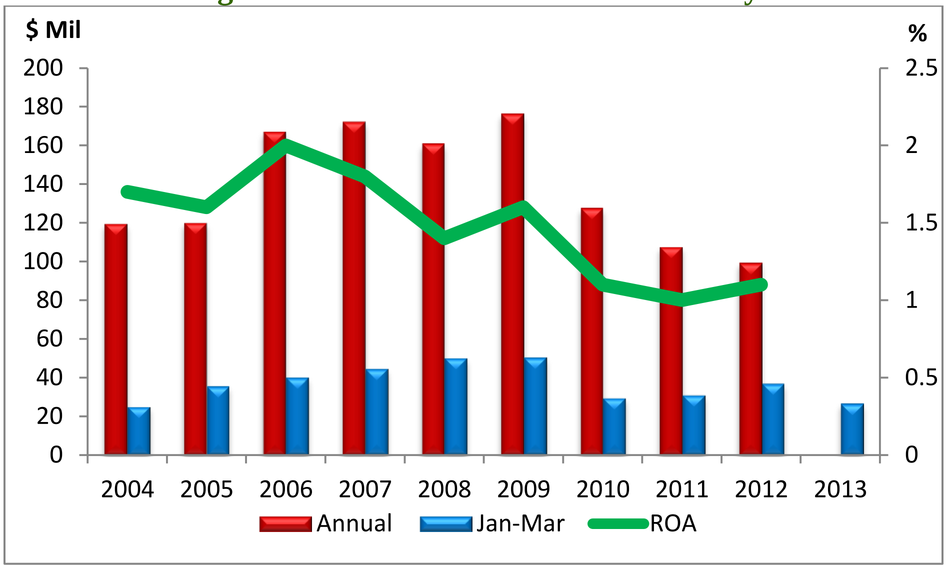
Figure 4: Loans Written-off to Total Loans



Source: Central Bank of Barbados

Commercial banks have continued to be profitable despite the consecutive reductions in profitability witnessed since 2009. Over the six months under review, the performance was uneven across institutions but the overall contraction in profitability for the industry was 40 percent when compared to the similar period of the previous year (Figure 5).

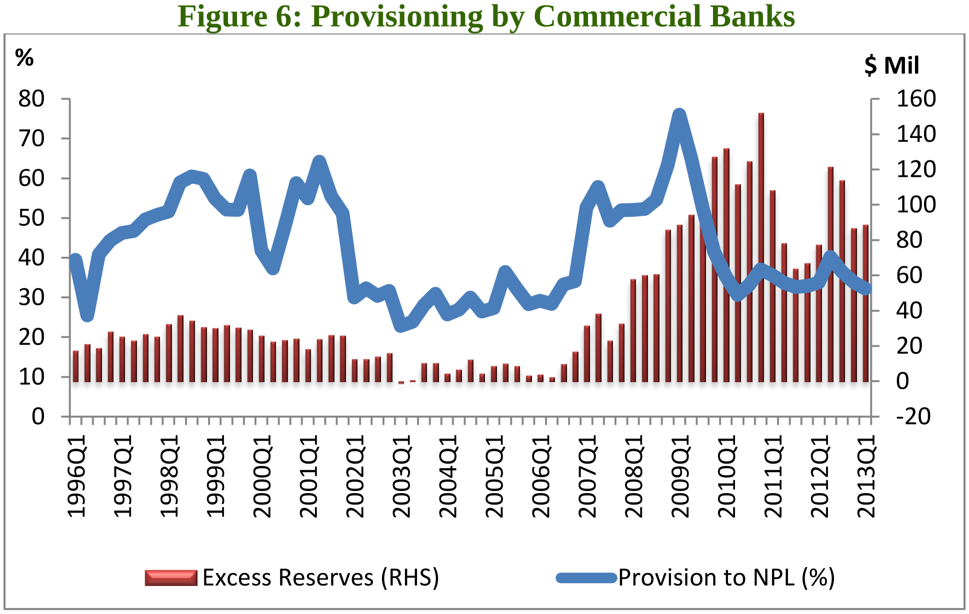
Figure 5: Commercial Banks Profitability



Source: Central Bank of Barbados

Although the provision-to-NPL ratio has declined from 37 percent to 32 percent relative to September 2012, banks continue to hold reserves in excess of statutory requirements (Figure 6).

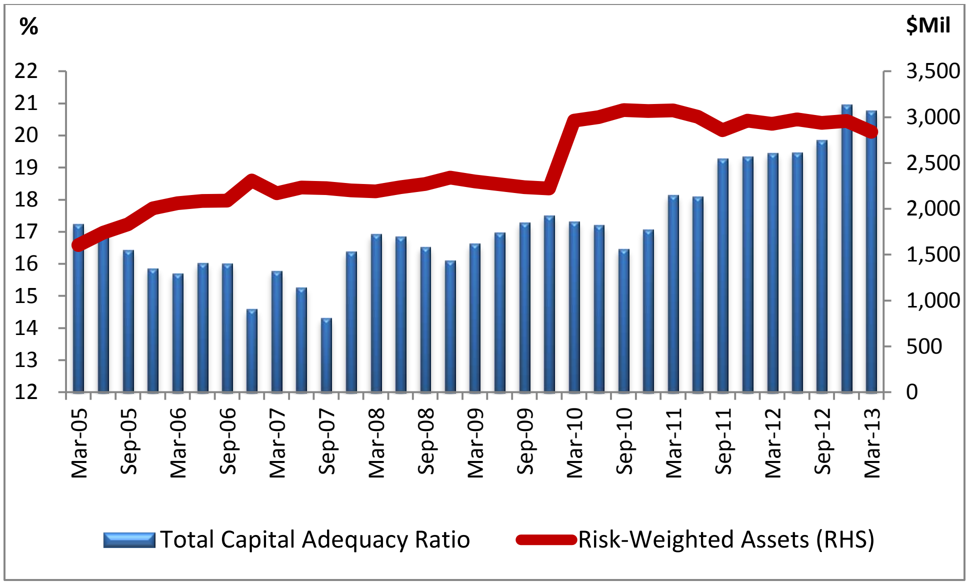
Figure 6: Provisioning by Commercial Banks



Source: Central Bank of Barbados

Additionally, the total capital adequacy ratio rose from 19.9 percent in September to 20.8 percent in March 2013 (Figure 7).

Figure 7: Commercial Banks Capital Adequacy



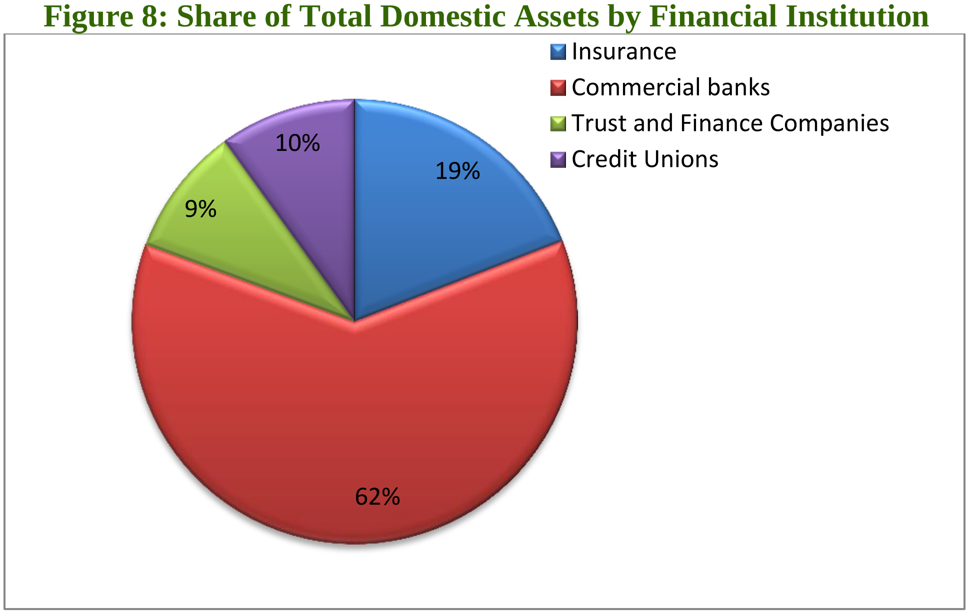
Source: Central Bank of Barbados

3. Non-Bank Financial Institutions

3.1 Finance Companies and Trusts

Trust and mortgage finance companies and finance companies and merchant banks account for approximately 9 percent of total domestic assets of financial institutions (Figure 8).

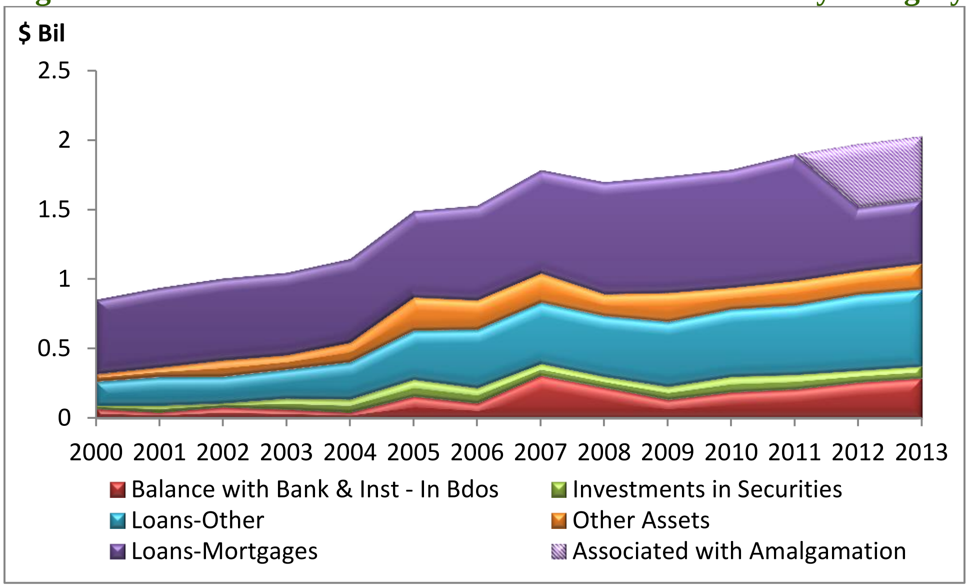
Figure 8: Share of Total Domestic Assets by Financial Institution



Source: Central Bank of Barbados

The growth in assets for the deposit taking institutions (DTIs) was about 2.7 between September 2012 and March 2013. This growth was led by expansion of commercial and personal non-mortgage loans which rose by 5 percent, as well as increased holdings of securities (up 13%). Mortgage loans grew marginally (Figure 9).

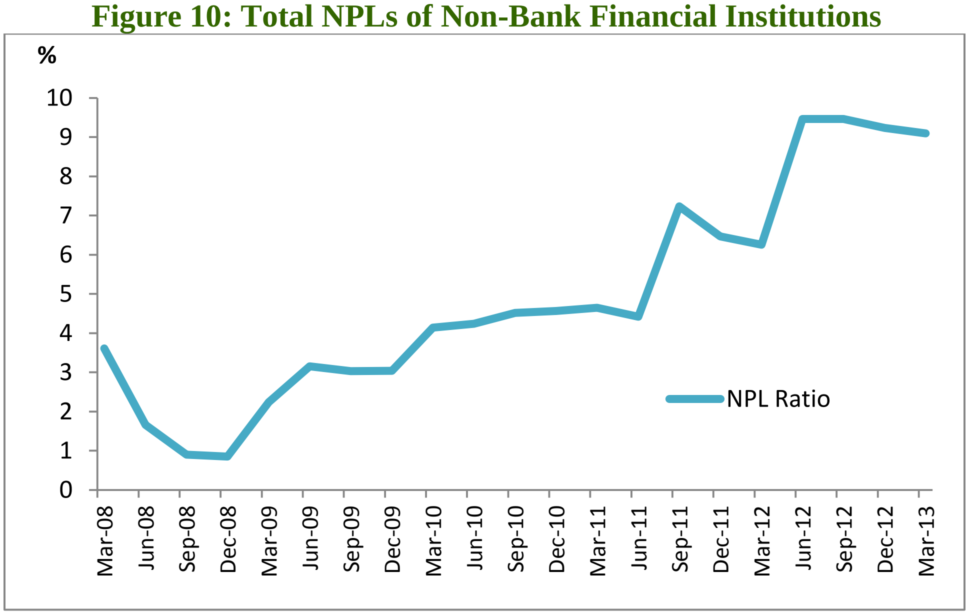
Figure 9: Total Assets of Non-Bank Financial Institutions by Category



Source: Central Bank of Barbados

Over the six month period, there has been little change in NPLs (Figure 10).

Figure 10: Total NPLs of Non-Bank Financial Institutions

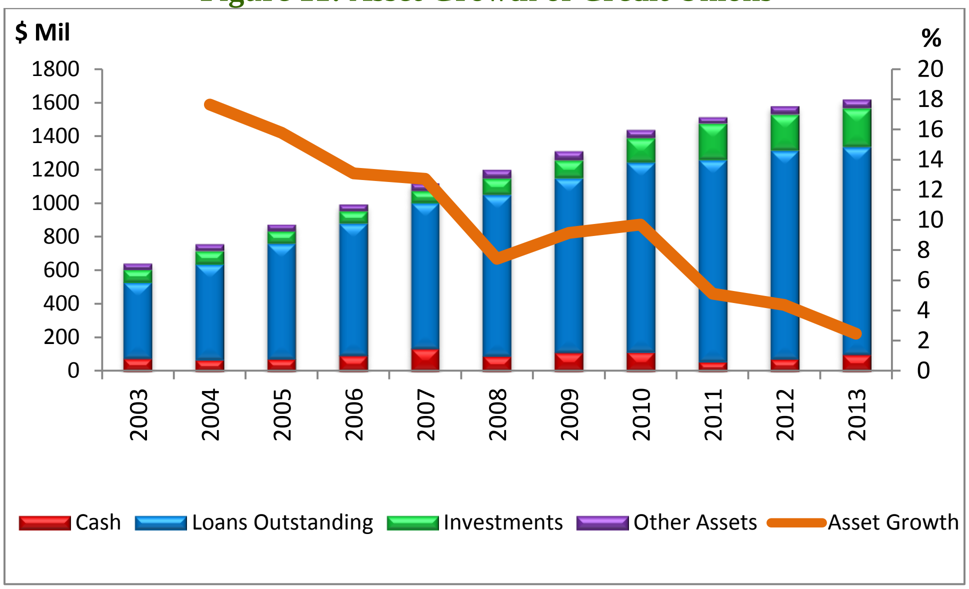


Source: Central Bank of Barbados

3.1.1 *Credit Unions*

Credit Unions account for approximately 10 percent of total domestic assets of financial institutions (Figure 8). Continuing the trend of previous years, credit unions have grown faster than commercial banks, expanding at a rate of 3.6 percent between September 2012 and March 2013. This expansion was driven by growth in investments and other assets, funded by a commensurate increase in members' savings (Figure 11).

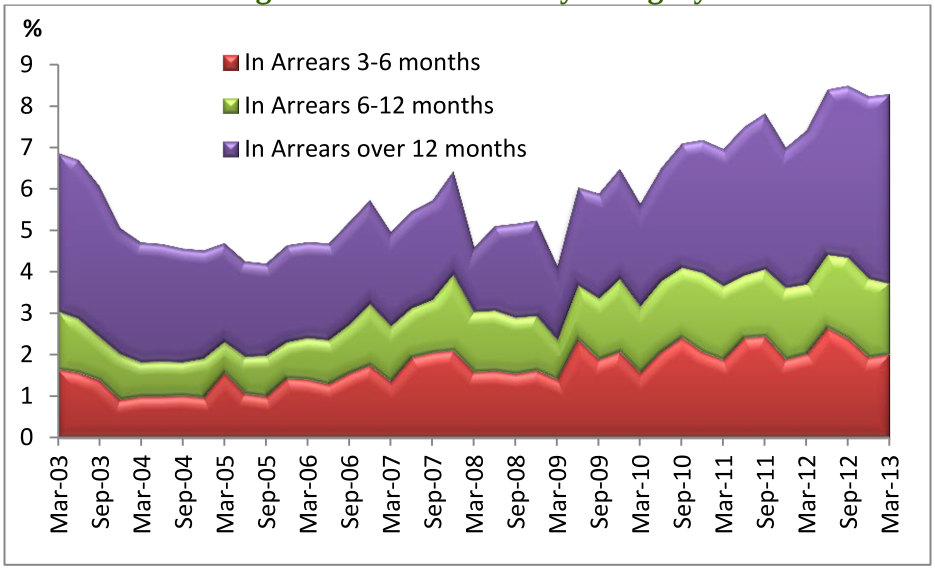
Figure 11: Asset Growth of Credit Unions



Source: Central Bank of Barbados

The NPLs of credit unions have stabilized over the six-month period under review.

Figure 12: Total NPLs by Category

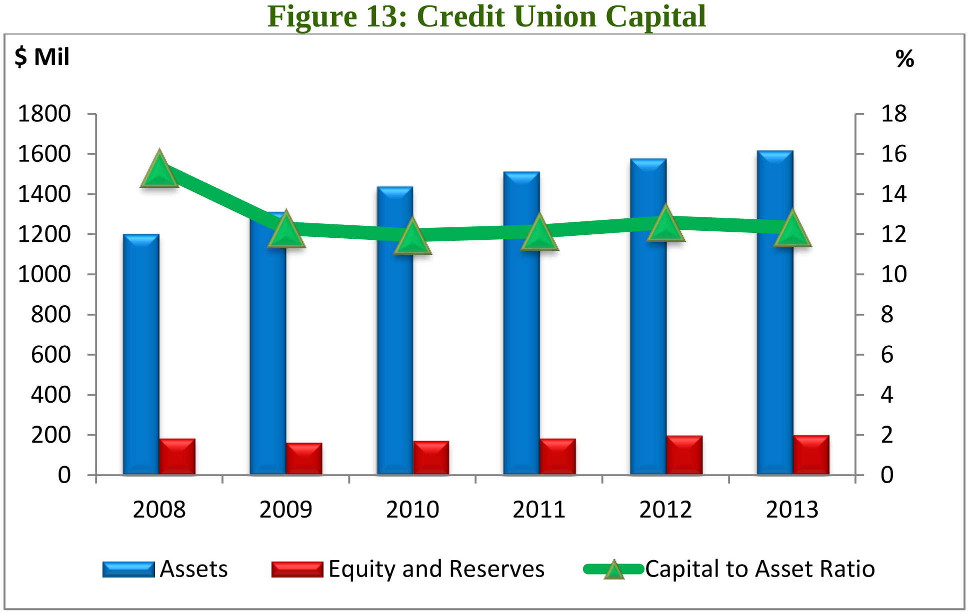


Source: Central Bank of Barbados

However, the majority of NPLs held by credit unions have been in arrears over twelve months (Figure 12). There is also a substantial variation in the quality of the loan portfolio with NPLs among smaller credit unions substantially higher than among the larger entities, as measured by asset size.

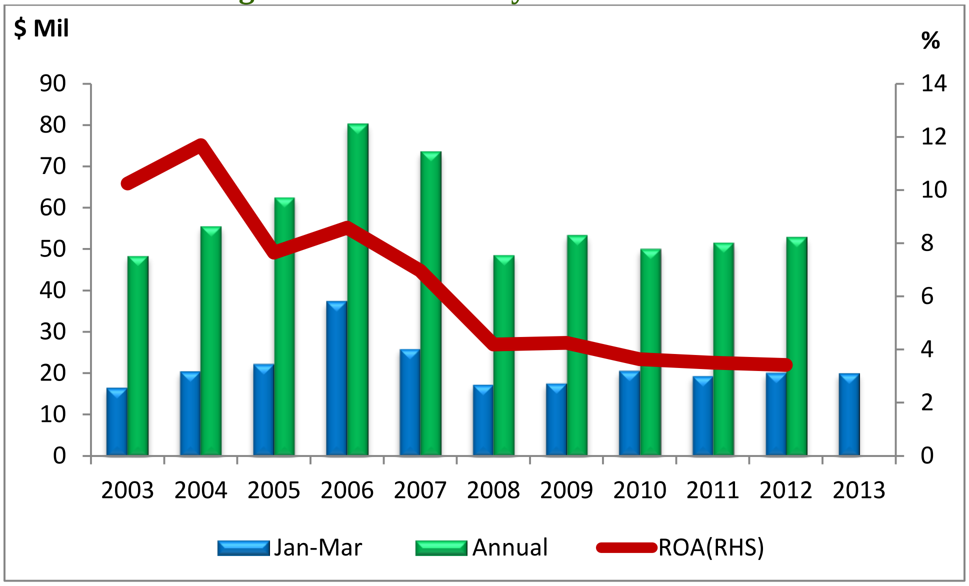
Credit unions' capitalisation remained relatively unchanged at approximately 12.3 percent. Additionally, profitability has been somewhat constant over the previous three years (Figures 13 and 14).

Figure 13: Credit Union Capital



Source: Central Bank of Barbados

Figure 14: Profitability of Credit Unions



Source: Central Bank of Barbados

3.2 Insurance Companies

(Data to 2012)

The domestic insurance sector remains a significant component of the financial sector in Barbados with total assets of approximately $3 billion being held by insurance companies or approximately 19 percent of total domestic assets of financial institutions. During the financial year 2012, there were twenty six (26) domestic insurance companies, twenty two (22) insurance brokers, thirty seven (37) insurance agents, seven (7) sub agents, nine (9) intermediaries (loss adjusters/surveyors), and four hundred and seventy two (472) sales persons registered under the Insurance Act Cap. 310 to conduct insurance business within Barbados.

The combined industry's (life and general insurance) gross premiums written in 2012 was $647 million and has remained within the range of $645 million to $685 million over the past three years. The market is dominated by general insurance premiums which account for approximately 77 percent, while the life insurance sector contributes 23 percent. Motor and property insurance policies are the key policy types sold in the general insurance market, accounting for over 75 percent of the gross premiums written. In the life insurance market the key products sold are whole life, term life, and universal life. The insurance loss ratios[2] have improved over the previous three years with the motor

[2] The loss ratio is the ratio of total losses incurred (paid and reserved) in claims plus adjustment expenses divided by the total premiums earned

insurance gross loss ratio falling from 62 percent in 2010 to 45 percent in 2012. Similarly, the property insurance gross loss ratio fell from 14 percent in 2010 to 5 percent in 2012.

The amount of reinsurance ceded by insurance companies in 2012 was $290 million thus implying that the net premiums written in the industry stood at $357 million. The reinsurance amount ceded in 2011 was $292 million.

The industry's combined net income in 2011 was reported at $246 million. Of the total industry assets of $2.4 billion, approximately $1.1 billion is held in statutory funds in support of policy holder liabilities, of which approximately $423 million are held in Government bonds in Barbados. The industry's net income in 2012 was $38 million with the drop in income due mainly to reductions in the investment returns and increased operational expenses in the life insurance sector.

These statistics point to a relatively stable and solvent domestic insurance industry; however, there has been no industry growth over the past 3 years.

4. Stress Testing Analysis

The simulations contained in this report assess the extent to which the capital buffers of financial institutions are able to withstand losses generated from imposed shocks. Under each scenario, the full impact of the shock was directly transmitted to the institution's capital. As at March 2013, the capital adequacy ratios (CARs) for the major lending sectors in the financial system ranged between 15 and 35 percent.[3] The scenarios focused mainly on credit risk channels, inter-bank and cross-border exposures.

4.1 Credit Risk

Institutions are required to make provisions based on the classification of their loan portfolio. In Barbados, the current standard for provisions for institutions licensed under the Financial Institution's Act (FIA), is 10 percent for 'substandard loans', 50 percent for 'doubtful loans' and 100 percent for the lowest category, 'loss loans'. No provisions are required for 'pass loans' or 'special mentioned' loans.

[3] Regulatory capital was derived from the balance sheet of branch institutions since they do not report capital positions. This facilitated the calculation of capital adequacy ratios for the banking system. Furthermore, capital ratios for credit unions were obtained using the bank methodology.

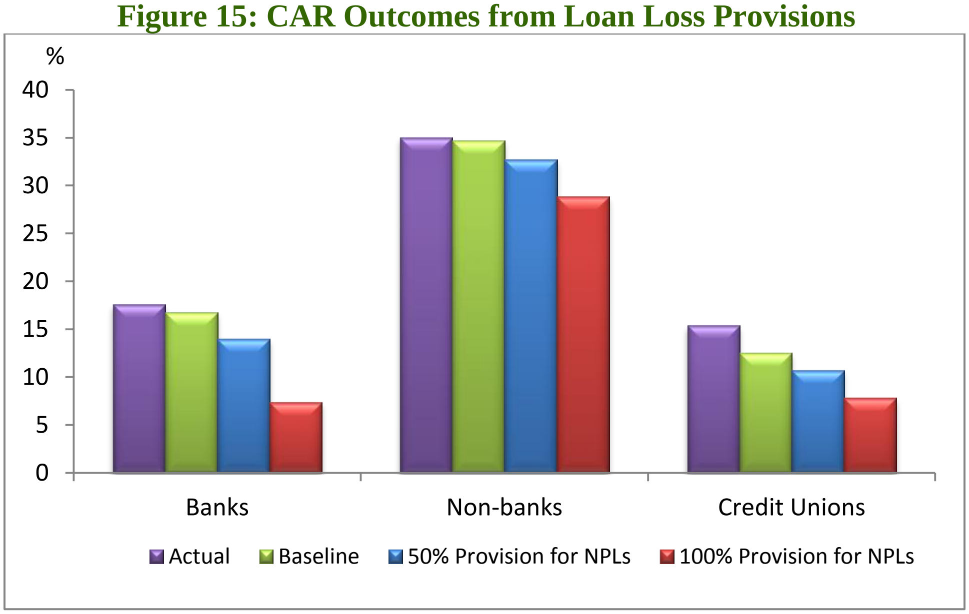
The first simulation examined the extent to which the current provisions of each institution can be undermined given their current loan classification. By adjusting provisioning rates across the loan classifications, the urgency with which an institution may require additional capital to maintain prudential standards would indicate the adequacy of provisions held.

Figure 9 provides a snapshot of the current capital adequacy ratios of the DTIs and the adjusted CARs under various loan loss provisioning requirements. The actual CAR is the position as at March 2013, while the baseline CAR assumes that institutions make allocations for 1 percent of their pass loans, 5 percent of their 'special mention' loans and 20 percent of 'substandard loans', in addition to the 50 percent and 100 percent requirements on 'doubtful' and 'loss' categories, respectively. Table 1 below shows the details of th**e** provision rates under the various scenarios

Table 1: Provisioning Rates for Scenarios

	Pass	Special Mention	Substandard	Doubtful	Loss
Actual	0	0	10	50	100
Baseline	1	5	20	50	100
Scenario A	1	10	50	50	100
Scenario B	1	20	100	100	100

Figure 15: CAR Outcomes from Loan Loss Provisions



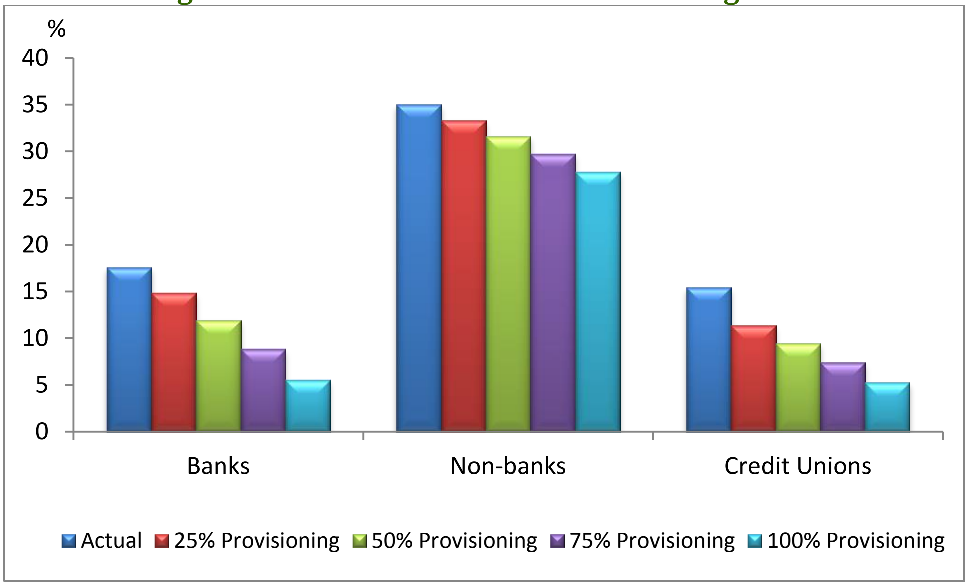
Source: Simulation Results, Central Bank of Barbados

The results show that reserves held in the financial sector are sufficient to support sizeable adjustments to the provisioning rates. The impact on capital ratios for both banks and non-banks is less than 1 percentage point when moving to the baseline assumptions. In scenario A (10 percent for the 'special mentioned' category and 50 percent for the substandard category), the sectors as a whole remained well capitalised, but one bank would require additional capital. However, in the extreme case, Scenario B, two banks and one non-bank would be in breach of the 8 percent prudential threshold.

4.1.1 Increase in NPL

Another scenario assessed the impact of rising non-performing loans on the CAR of institutions. In the first instance, NPLs were assumed to grow in 25 percent bands up to 100 percent, using the baseline provisioning framework for each of the iterations. The results suggest each institution had sufficient capital to absorb losses and remain in line with the prudential capital requirement. The next scenario combined NPL growth with changes in the provisioning requirements. Figure 16 depicts the impact of 100 percent increase in NPLs along with increases in the provisioning requirements on CAR ratios. It was observed from the results that the banking sector and non-banks maintained CAR levels above 8 percent even when the provisioning requirements were 75 percent. Increasing provisions to 100% would cause the aggregate CAR of banks to fall below the statutory requirement, but only one bank would be in breach of the statutory requirement. The credit union sector falls below the requirement when provisioning of 75 percent is applied.

Figure 16: CAR Outcomes from Increasing NPLs

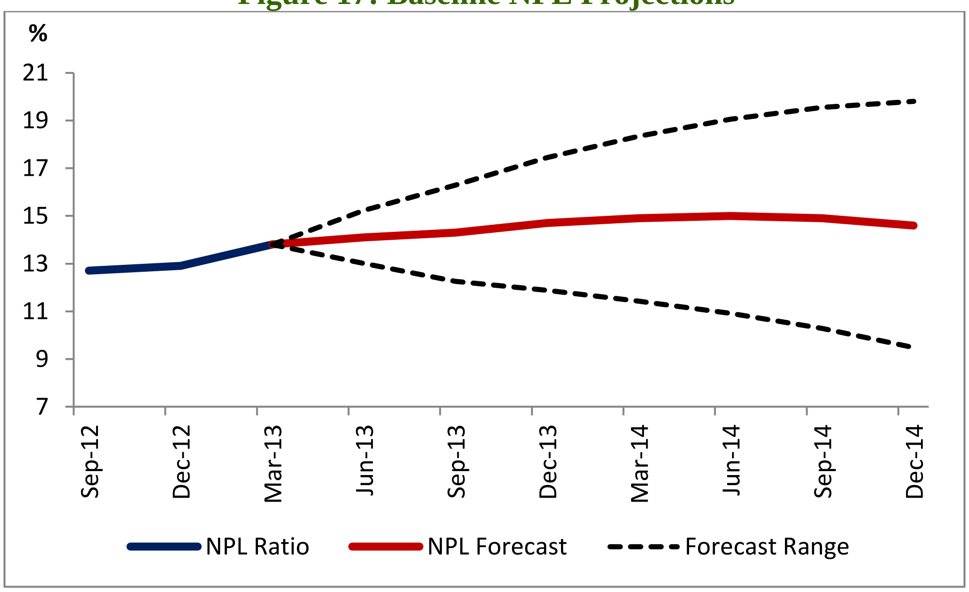


Source: Simulation Results, Central Bank of Barbados

Large exposure risks were also examined by the impact on the institutions' capital if the largest borrowers in the portfolio defaulted. The five largest borrowers per institution were identified and the shocks applied sequentially for up to five rounds. The assessment was first done assuming a 10 percent provisioning requirement, followed by a 50 percent and 100 percent requirement, respectively. All institutions maintained significantly high CAR levels under the 10 percent provisioning. Under the 50 percent provisioning assumption, aggregate bank capital fell below 8 percent after the four largest borrowers defaulted; however, this break was concentrated in two banks. With 100 percent provisioning, two banks would contribute to the breaking point of the banking system after a shock to the two largest loans.

In completing the credit risk assessment, the medium term path of bank NPLs was mapped out based on the current economic environment (Figure 17). Simulations from the macro-prudential framework suggest that NPLs are likely to remain within the 10 to 20 percent range over the next year. The stress test scenarios provide some evidence that all institutions have sufficient capital to provide a buffer from the potential losses associated with this level of vulnerability.

Figure 17: Baseline NPL Projections



Source: Simulation Results, Central Bank of Barbados

An investigation into the impact of inter-bank exposures, as well as cross-border exposures on bank capital has revealed that related company activities pose the most significant threat. Nevertheless, given the current exposures and level of reserves held, the banking system has been proven to be resilient to the simulated shocks from these sources.

In terms of the domestic inter-bank market, only a few firms had some level of exposure, which was too small to create any real concern. For the cross-border impacts, it was assumed that the foreign exposures, classified by region, were eroded. The sizes of these losses were then matched by the capital reserves to determine the overall impact on the institutions' CAR. Table 2 presents the results based on cross-border exposures and shows the resulting range of the capital adequacy for each region of exposure.

Overall the results suggest significant exposures to Caribbean and Global Affiliates with one bank failing in each case. Losses to all other geographic regions were insufficient to erode capital levels below the 8 percent threshold.

Table 2: Results of Default of Individual Banking Sectors and Groups

Shocks	**System After Shock CAR (%)**	**Range of After Shock CAR (%)**	**Banks with CAR<8%**
Europe	17.0	13.6 – 21.7	-
Canada	16.7	13.5 – 20.4	-
USA	15.1	13.4 – 17.9	-
Caribbean Affiliates	17.5	(4.5) – 22.1	1
Global Affiliates	17.0	(20.6) - 21.9	1

5. Appendix Tables

Table 1: Selected Financial Indicators – Commercial Banks

	2008	2009	2010	2011	2012	2012Q3	2013Q1
Solvency Indicators							
Capital Adequacy Ratio (CAR)	16.1	17.5	17.1	19.3	21.0	19.6	20.8
Liquidity Indicators#							
Loan to deposit ratio (%)	63.7	65.5	67.2	70.9	73.6	75.6	72.7
Demand deposits to total deposits (%)	34.8	36.6	35.2	32.1	29.3	27.3	29.4
Domestic demand deposits to total domestic deposits	32.1	27.9	27.1	27.6	26.8	24.4	26.4
Liquid assets, % of total assets	9	10.8	11.5	12	14.6	13.2	16.9
Credit Risk Indicators							
Total assets (growth rate, %)	4.2	-5.6	-1.5	-4.7	11.5*	9.0*	-0.5
Domestic assets (growth rate, %)	9.2	2.3	0.6	-6.1	6.1*	4.8*	1.8
Loans and advances (growth rate, %)	12.4	0.9	0.6	-0.5	-1.1*	-1.9*	-1.4
Non-performing loans ratio (%)	3.4	7.9	10.8	11.1	12.9	12.7	13.9
Substandard loans/ Total loans (%)	2.5	6.7	9.1	8.7	9.9	9.9	10.6
Doubtful loans/ Total loans (%)	0.4	0.4	1	1.8	2.3	1.9	2.6
Loss Loans / Total loans	0.6	0.9	0.7	0.6	0.8	0.8	0.6
Provisions to non-performing loans (%)	63.4	41.5	37.4	32.9	33.9	36.5	32.3
Foreign Exchange Risk Indicators							
Deposits in Foreign Exchange (% of total deposits)	14.8	13.3	12.9	6.6	4.9	4.0	4.3
Profitability Indicators							
Return on Assets (ROA)	1.4	1.6	1.1	1.0	1.1	n.a	n.a

Source: Central Bank of Barbados

* *Reflects removal of financial consolidation;* # *Includes foreign components unless otherwise stated*

Table 2: Selected Financial Indicators – Non-bank Financial Institutions

	2008	2009	2010	2011	2012	2012Q3	2013Q1
Solvency indicator							
Capital / Assets (%)	21.2	22.6	23.5	23.8	23.6	23.9	23.8
Liquidity indicators							
Loan to deposit ratio (%)	180.0	168.3	167.6	152.3	109.9	156.6	99.5
Demand deposits to total deposits (%)	25.0	22.4	29.0	23.0	25.5	27.7	17.7
Liquid assets/Short Term Liabilities (%)	54.7	46.7	52.8	77.4	89.8	56.5	40.3
Credit risk indicators							
Asset Growth	-5.0	2.5	2.9	6.3	3.9*	4.7*	3.0
Nonperforming loans ratio (%)	3.3	5.2	5.7	8.6	9.1	6.8	9.1
Substandard loans/Total loans (%)	3.0	4.8	5.2	7.4	6.0	5.9	6.0
Doubtful loans/Total loans (%)	0.1	0.1	0.1	0.7	2.0	0.2	2.1
Loss loans/Total loans (%)	0.2	0.3	0.3	0.6	1.1	0.6	1.0
Reserves to nonperforming loans (%)	21.2	16.2	14.5	17.0	36.8	23.6	37.7
Profitability indicators							
Net Income/Capital (%)	10.4	11.1	10.9	8.3	5.2	9.1	10.9
Return on Assets (ROA)	2.1	2.4	2.5	1.9	1.2	n.a	n.a

Source: Central Bank of Barbados

** Reflects the underlying growth in assets.*

Table 3: Selected Financial Indicators – Credit Unions

	2008	2009	2010	2011	2012	2012Q3	2013Q1
Solvency Indicator							
Reserves to Total Liabilities (%)	9.5	9.1	9.4	9.2	10.0	9.8	10.0
Liquidity Indicators							
Loan to deposit ratio (%)	123.5	114.3	114.8	113.4	117.1	116.5	113.2
Liquid assets/Short Term Liabilities (%)	10.2	11.8	11.3	5.2	6.3	6.7	8.2
Credit risk Indicators							
Total assets, annual growth rate (%)	7.4	9.1	9.7	5.1	4.4	3.2	5.2
Loans, annual growth rate (%)	10	8	8.6	7	3.7	1.7	2.2
Nonperforming loans ratio (%)	5.2	6.5	7.2	7.0	8.2	8.5	8.3
Arrears 3-6 months/ Total Loans	1.6	2.1	2.1	1.9	1.9	2.4	2.0
Arrears 6 – 12 months/Total Loans (%)	1.3	1.8	1.9	1.7	1.9	2.0	1.7
Arrears over 12 months/Total Loans (%)	2.3	2.7	3.2	3.4	4.4	4.1	4.6
Provisions to Total loans (%)	1.8	1.9	2.2	2.8	3.2	3.1	3.1
Profitability Indicator							
Return on Assets (ROA)	4.2	4.3	3.6	3.5	3.4	n.a	n.a

Source: Financial Services Commission