UWI
ST. AUGUSTINE CAMPUS

CARIBBEAN CENTRE FOR MONEY & FINANCE

Caribbean Regional Financial Stability Report

2015

THE CENTRAL BANK OF THE BAHAMAS

CENTRAL BANK OF BARBADOS

CENTRAL BANK of BELIZE

EASTERN CARIBBEAN CENTRAL BANK

BANK OF GUYANA

BRH
BANQUE DE LA RÉPUBLIQUE D'HAÏTI

BANK OF JAMAICA

CENTRALE BANK VAN SURINAME

CENTRAL BANK OF TRINIDAD & TOBAGO

Caribbean Regional Financial Stability Report 2015

Caribbean Regional Financial Stability Report 2015

Published by the
Caribbean Centre for Money and Finance
The University of the West Indies, St. Augustine,
Republic of Trinidad and Tobago
Phone: (868) 645-1174, Fax: (868) 645-6017
E-Mail: ccmf@sta.uwi.edu
Website: www.ccmf-uwi.org

ISSN 2415-2625

Printed by: SCRIP-J

LIST OF CONTRIBUTORS

Regional Financial Stability Coordination Council (RFSCC) Members

Gobind Ganga(Deputy Chairman)	Bank of Guyana
Brian Langrin	Bank of Jamaica
Dave Seerattan	Caribbean Centre for Money and Finance
Compton Bourne (*Until December 2014*)	Caribbean Centre for Money and Finance
Cleviston Haynes (Chairman)	Central Bank of Barbados
Christine Vellos	Central Bank of Belize
Antoine Grand'Pierre	Central Bank of Haiti
Alwyn Jordan	Central Bank of The Bahamas
Rakesh Adhin	Central Bank of Suriname
Joy Ten Berge (*Until April 2014*)	Central Bank of Suriname
Glenn Gersie (*Until March 2013*)	Central Bank of Suriname
Shelton Nicholls (*Chairman until January 2013*)	Central Bank of Trinidad and Tobago
Wendy Ho Sing (*Until June 2015*)	Central Bank of Trinidad and Tobago
Kennedy Byron	Eastern Caribbean Central Bank

Regional Individual Contributors

Sherene Bailey	Bank of Jamaica
Aroldo Moulton	Bank of Jamaica
Julia Jhinkoo	Caribbean Centre for Money and Finance
Anton Belgrave	Central Bank of Barbados
Kester Guy	Central Bank of Barbados
Barrington Sutherland	Central Bank of Belize
Paula Perez	Central Bank of Belize
Pierre Andre Agelus	Central Bank of Haiti
Malick Dioume	Central Bank of Haiti
Max-Edouard Mondesir	Central Bank of Haiti
Jean-Armand Mondelis	Central Bank of Haiti

Dirk Van Leeuwen	Central Bank of Suriname
Patricia Pocorni	Central Bank of Suriname
Frits Konigferander	Central Bank of Suriname
Agnes Choennie	Central Bank of Suriname
Sanjay Gaurisankar	Central Bank of Suriname
Sharon Branch	Central Bank of The Bahamas
Alma Gomez	Office of the Supervisor of Insurance Belize
Collin Enriquez	Office of the Supervisor of Insurance Belize

Institutional Contributors

Bank of Guyana

Central Bank of Trinidad and Tobago

Eastern Caribbean Central Bank

International Monetary Fund

Consultants

Desiree Cherebin

Maurice Odle

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

BAICO	British American Insurance Company
BCBS	Basel Committee on Banking Supervision
BHS	The Bahamas
BLZ	Belize
BRB	Barbados
CACS	Caribbean Association of Credit Union Supervisors
CAIR	Caribbean Association of Insurance Regulators
CAPS	Caribbean Association of Pension Supervisors
CARICOM	Caribbean Community
CARICRIS	Caribbean Information and Credit Rating Services Ltd.
CBC	Cross Broder Coordinator
CCBG	Committee of Central Bank Governors
CCCU	Caribbean Confederation of Credit Unions
CCMF	Caribbean Centre for Money and Finance
CGBS	Caribbean Group of Bank Supervisors
CGSR	Caribbean Group of Securities Regulators
CIBC	Canadian Imperial Bank of Canada
CLICO	Colonial Insurance Company
COFAP	Council for Finance and Planning
DSG	Domestic Standing Group
DTI	Deposit Taking Institutions
ECCU	Eastern Caribbean Currency Union
ECFSC	Eastern Caribbean Financial Services Commission
ECSE	Eastern Caribbean Securities Exchange
EUR	Euro Area
FDI	Foreign Direct Investment
FSI	Financial Soundness Indicator
GDP	Gross Domestic Product
GUY	Guyana
HTI	Haiti
IMF	International Monetary Fund
JAM	Jamaica
LTD	Loan to Deposit
MPI	Macro-prudential Policy Indicators
NPL	Non-Performing Loans
OECD	Organization for Economic Co-operation and Development
RCMG	Regional Crisis Management Group
RFSCC	Regional Financial Stability Coordination Council
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement
SCOG	Sub-Committee of Governors
SIFI	Systemically Important Financial Institution
SUR	Suriname
TTO	Trinidad and Tobago

UNWTO	United Nations World Trade Organisation
UK	United Kingdom
USA	United States of America
WEO	World Economic Outlook

PREFACE

Central banks have a strong mandate to protect and maintain financial stability, primarily because the health of the financial system has a profound effect on the performance of the economy and its resilience to shocks. The liberalization of financial systems in the Caribbean has led to increasing regional financial integration and the intensification of cross-border financial activity. Over time, this has resulted in a concentrated and interconnected regional financial system which means that national regulators cannot now adequately manage risks and promote financial stability in their national jurisdictions without reference to developments in, and cooperation with, regulators in connected countries. If this reality was not internalized before, the recent failure of a regionally important financial conglomerate and the attendant widespread negative fallout have underscored the importance of enhancing the region's capacity to effectively monitor financial risks and implement policies to preserve regional financial stability.

This Regional Financial Stability Report (RFSR), the first of its kind in the Caribbean Community, represents the culmination of a long process of development and enhancement of the architecture for financial stability in the Region. This necessarily involved the upgrading of national financial stability systems, since the regional financial stability architecture is built on national structures. This process has been led by the CARICOM Group of Central Bank Governors and facilitated by funding from the Inter-American Development Bank (IADB) through a project on Financial Risk Assessment in the Caribbean, managed by the Caribbean Centre for Money and Finance (CCMF), a research institution funded by regional central banks and The University of the West Indies. During this process, the CARICOM Group of Central Bank Governors created a new enabling body, the Regional Financial Stability Coordination Council (RFSCC), which proved to be critical to the successful coordination of technical work related to the completion of this report.

This report complements the national financial stability reports and its purpose is to sensitize the main regional financial stability stakeholders, including the regional public, of issues relevant to the stability of the financial system in the region. By reviewing the main sources of risks to the stability of the regional financial system, as well as the policy measures being used to deal with emerging risks, the report seeks to help build confidence and provide policymakers with guidance on the building blocks to defuse any financial tensions in the system. Further, it identifies the need for financial sector reforms, with an emphasis on increased harmonisation, coordination and cooperation from a regional perspective.

The analytical content in the report benefited from the close involvement of regional regulatory associations such as the Caribbean Group of Banking Supervisors (CGBS), Caribbean Association of Insurance Regulators (CAIR) and the Caribbean Group of Securities Regulators (CGSR). Additionally, the International Monetary Fund (IMF) made a significant contribution by collaborating with participating central banks on the interconnectedness map component of the project. The report also benefited from training organized with the assistance of the financial stability work programme of the Caribbean Technical Assistance Centre (CARTAC). The funding from the IADB in support of targeted workshops and conferences was instrumental in assisting efforts by regional central banks and other regulatory agencies to improve the regional financial stability framework in the Caribbean.

The structure of this Report reflects the breadth and depth of coverage that is required to adequately deal with the issue of stability of the financial system in the Caribbean. The first chapter provides an overview of financial stability in the Caribbean, the second treats with the global and regional macro-financial environment, the third chapter reviews the structure of the Caribbean financial system while the fourth chapter analyses the performance of financial institutions, particularly the commercial banks and insurance companies. The fifth chapter provides an assessment of contagion risk in the Caribbean while chapter six reviews the policy initiatives for maintaining regional financial stability.

This report is a product of a truly collaborative regional effort. In addition to the institutions mentioned earlier, it has benefited from the contributions of Dr Maurice Odle, project consultant and comments from regional experts on earlier drafts. The process that produced this report has helped to reduce data gaps and, although some deficiencies still exist, it is expected that production of this report will become an annual exercise, forming a permanent part of modern Caribbean financial stability architecture. Over time it is anticipated that the residual data deficiencies will be addressed, allowing for further refinement in the analysis of interconnectedness within the Region.

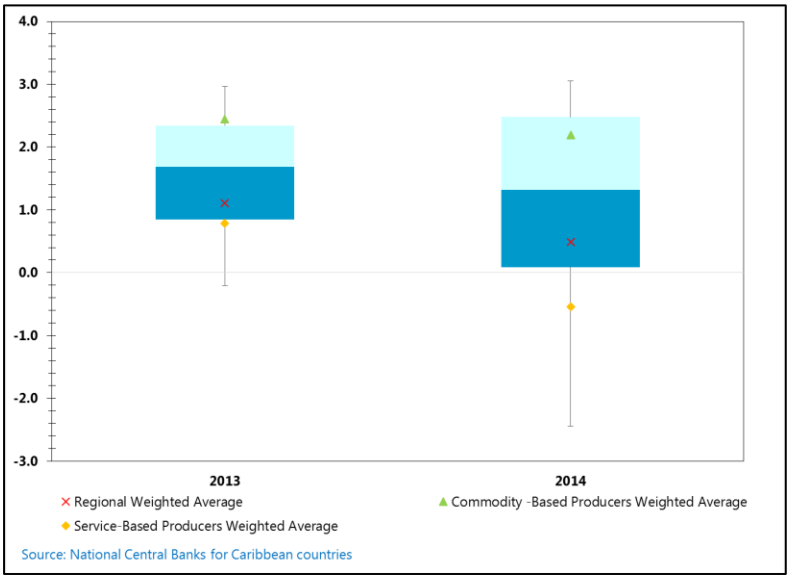
Chapter 1: OVERVIEW OF FINANCIAL STABILITY IN THE CARIBBEAN

1.1 BROAD STATE OF FINANCIAL STABILITY

The overall level of financial stability in the Caribbean has improved significantly over what obtained during the height of the recent global financial and economic crisis. In terms of current performance, the levels of capital adequacy/reserves and liquidity among regional financial institutions are generally above their counterparts in Latin America and there have been improvements in this area again in 2014 relative to 2013. Asset quality and profitability are also generally on par with their peers in Latin America although there has been same slippage in a few jurisdictions. Additionally, significant macroeconomic vulnerabilities still exist which can potentially create challenges for financial stability. In spite of these vulnerabilities, the level of financial system stress is relatively low and the resilience of the system has been buttressed by recent improvements in economic performance, ongoing efforts to upgrade the regional and national architecture for financial stability and significant buffers in terms of liquidity and capital.

1.2 FINANCIAL CONDITION OF BANKS

Figure 1.1: FSI for Banking: Return on Assets (%)



The commercial banks in the Caribbean are the dominant institutional class among financial institutions in the region, both in terms of deposits and financial assets, and the state of their condition is therefore crucial to the stability of financial systems in the region. Commercial banks' average performance was mixed over the period 2013 to 2014. In particular, although capital adequacy and liquidity continued to be robust, the performance in terms of asset quality and profitability weakened in 2014 relative to 2013 driven by relatively weak economic growth in most countries. A closer examination of the financial soundness indicators (FSI) of commercial banks in the region reveals that the weaker performances in terms of asset quality and profitability occurred mainly in service-based economies (see Figures 1.1 to 1.6) which have experienced slower economic growth relative to their commodity-based counterparts in the region.

Figure 1.2: FSI for Banking: Return on Equity (%)

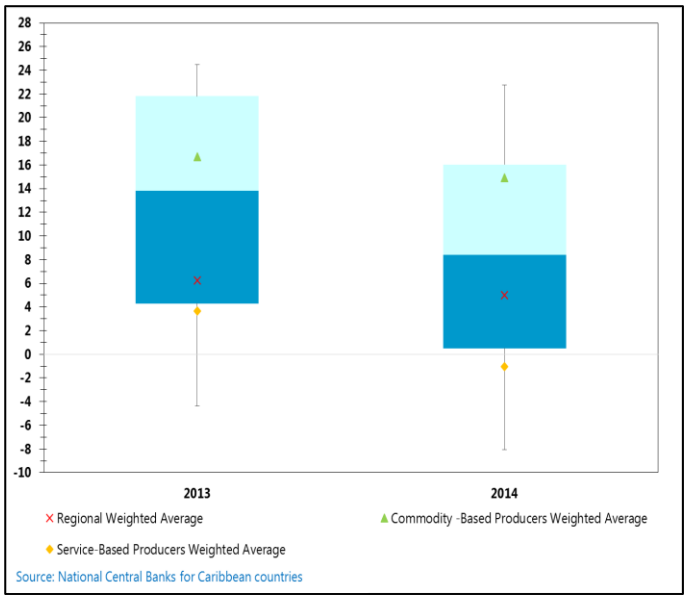


Figure 1.3: FSI for Banking: Regulatory Capital to Risk Weighted Assets (%)

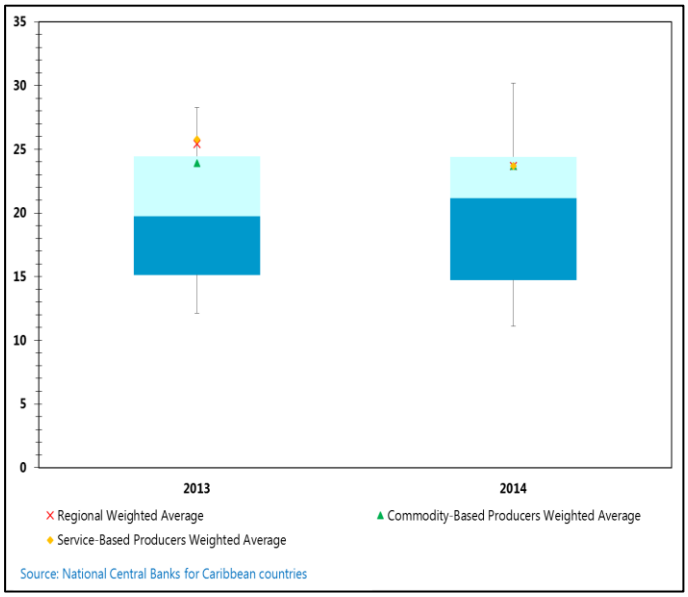


Figure 1.4: FSI for Banking: Regulatory Tier 1 Capital to Risk Weighted Assets (%)

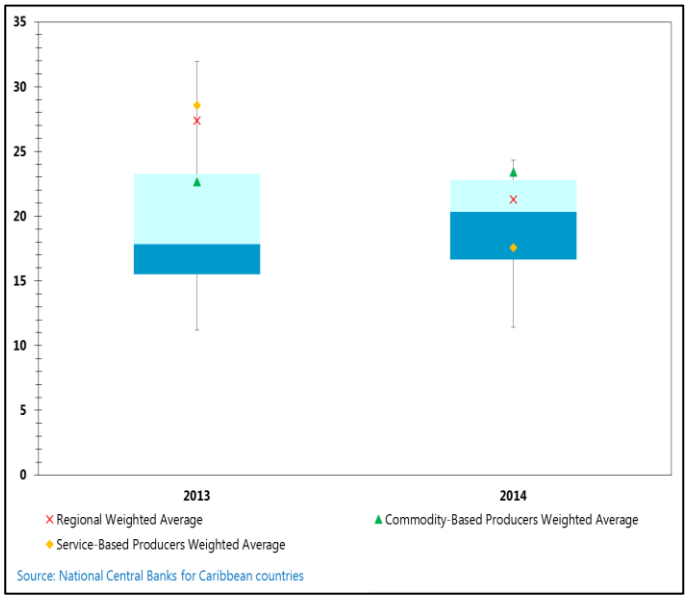
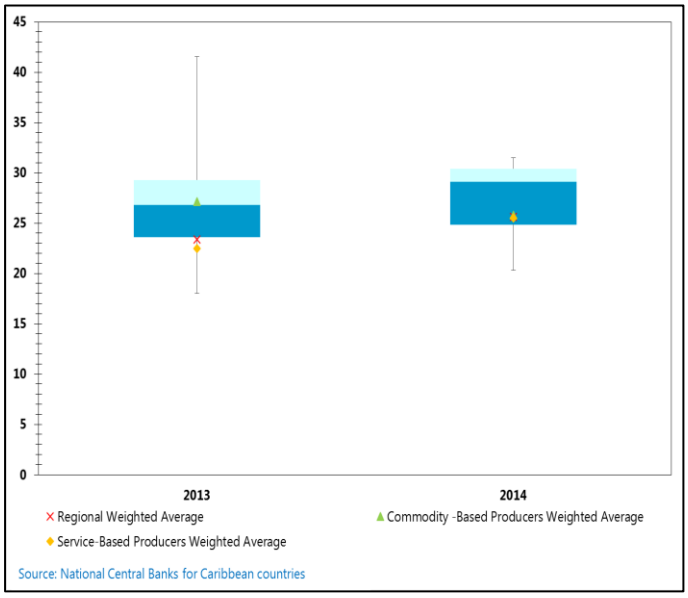
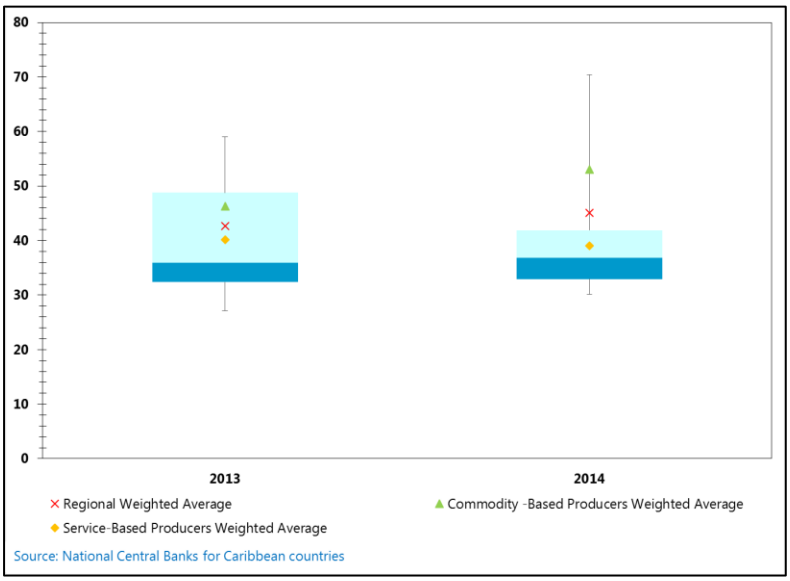


Figure 1.5: FSI for Banking: Liquid Assets to Total Assets (%)



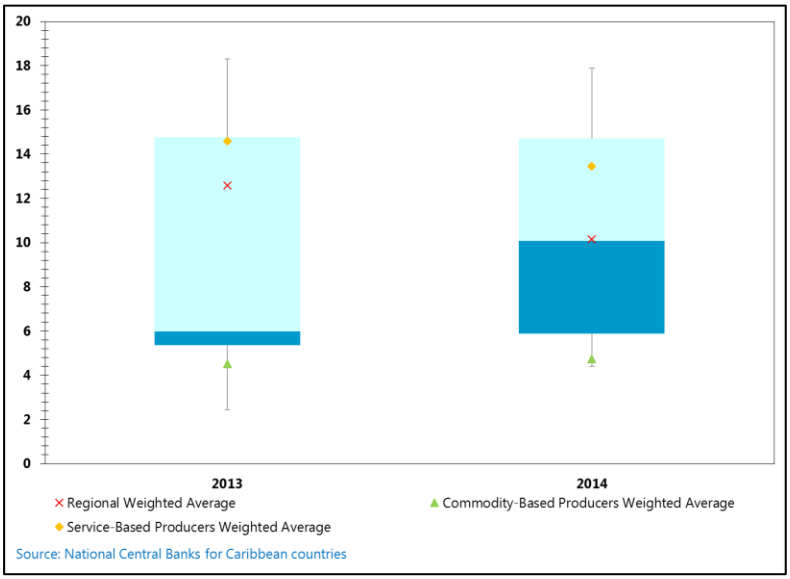
The main reason for the difference in performance between the two groups of countries is the higher incidence of non-performing loans (NPLs) in the services-based economies. The ratio of non-performing loans to total loans was 4.6 per cent in commodity-based economies compared to 13.5 per cent in 2014 for service-based economies. In terms of recent trends, there was a marginal increase of 0.1 percentage point in NPLs for the commodity-based economies while the service-based economies registered a one percentage point decline in their NPL ratio (See Figure 1.7). The higher provisioning related to high NPLs combined with reduced loan demand and lower interest rates led to weaker levels of profitability, especially among the service-based economies in the region.

Figure 1.6: FSI for Banking: Liquid Assets to Short-Term Liabilities (%)



The soundness of the banking system has been strengthened in the post-crisis years, even though Basel II for some jurisdictions, and Basel III for most jurisdictions, is still to be effectively implemented. Stress tests of commercial banks have generally not revealed potential fallibility to certain worst case scenarios. These stress tests suggest that the banking sector, taken as a whole, remains resilient and able to withstand significant adverse shocks emanating from events such as sharp movements in interest rates, credit conditions, sudden deposit runs or adverse changes in local, regional and international macroeconomic conditions.

Figure 1.7: FSI for Banking: Non-performing Loans to Total Gross Loans (%)



This resilience is also buttressed by the fact that most countries are in the process of adopting national crisis management frameworks and a regional crisis management and resolution system

is being developed to deal with contagion effects that can result from the cross-border operations of systemically important banking institutions.

1.3 FINANCIAL CONDITION OF INSURANCE COMPANIES

The insurance penetration ratio in the Caribbean is quite significant in terms of the considerable number of companies and agencies in the various countries. The volume of policies has also been growing significantly as income levels and property and motor vehicle ownership have increased.

Outside of the problems experienced by the collapse of CLICO and the British American Insurance Company (BAICO) (See Box 4.2), the other life insurance companies, with their traditional product offerings, managed to survive the post-2008 downturn in most Caribbean economies. However, compliance with statutory fund requirements needs to be carefully monitored. In the case of non-life business, earnings and profitability have been fairly stable, partly because of the risk averse/transfer strategy of seeking reinsurance (from extra-regional sources) rather than maintaining a high retention of liabilities. This is a sensible strategy given the Caribbean's relatively small market and its vulnerability to hurricanes, floods and other significant natural hazards.

Table 1.1: Insurance Sector (Life and Non-Life) Performance, 2013-2014

	Life		Non-Life	
	2013	2014	2013	2014
Commodity Producers				
Return on Equity	14.8	10.6	19.4	14.0
Capital/Total Assets	21.3	22.7	42.9	44.6
Risk Retention Ratio : *(Net Premium to Gross Premium)*	92.8	93.1	44.9	44.2
Services-Based Producers				
Return on Equity	21.3	21.1	13.8	27.4
Capital/Total Assets	27.6	26.7	30.3	43.9
Risk Retention Ratio: *(Net Premium to Gross Premium)*	87.3	95.4	43.6	46.1

Source: Calculations based on data provided by CCMF from the National central banks for Caribbean countries.
Note: Data are only available for five countries.

Analysis of the insurance sector in the Caribbean is constrained by the paucity of data. The information that is available suggests that the return on equity for life insurance companies in the service-based producers is considerably greater than that for the commodity-based producers, even though the latter economies were performing better. This might be due to the more competitive nature of the former's markets. The capital to total assets ratio is also higher in service-based economies.

In the case of non-life insurance companies, the return on equity improved for service-based economies between 2013 and 2014 while it declined for commodity-based producers over this period. Capital adequacy was generally high for all countries but more so among commodity based producers. The risk retention ratio for non-life insurers was generally low for all countries

indicating that they were generally shifting approximately 55 per cent of the risks to reinsurers and maintaining about 45 per cent of the risks (Table 1.1).

1.4 FINANCIAL SYSTEM RISKS

Credit Risks

Credit risk continues to be a major financial stability issue in the Caribbean and usually first manifests itself in three ways, through the incidence of non-performing loans, rapid credit growth and credit concentration.

The incidence of non-performing loans (NPL) to total loans in the commercial banking sector over the 2009-2014 period was over 60 per cent greater than it was in the immediate pre-crisis period of 2006-2008. Moreover, profitability as measured by both the return on equity and the return on assets fell by more than one-third over the two periods. Recently, the NPL ratio declined slightly from 12.6 per cent in 2013 to 10.3 per cent in 2014. The NPL ratio for service-based economies has been significantly higher than for their commodity-based counterparts since 2009 with the ratio for the former group of countries moving from 14.6 per cent to 13.5 per cent while the latter group moved from 4.5 per cent to 4.6 per cent between 2013 and 2014.

Table 1.2 : Growth of Real Estate Credit as a percentage of Total Private Sector Credit, 2013/2014

Producer-Type Economies	2000-2007 Average	2008-2014 Average	2013	2014	% Change 2013/2014
Commodity	12.80	29.45	21.41	22.11	3.26
Services	13.44	14.96	15.25	15.30	0.27
Average	13.32	19.81	17.89	18.21	1.81

Source: Calculations based on data supplied by National Central Banks for Caribbean countries.

In addition, although credit growth has been relatively stable in commodity-based producers it has increased strongly in some service-based economies. The ratio of total commercial bank credit to GDP did not change much between 2013 and 2014 but the service-based producers had significantly higher ratios compared to their commodity-based counterparts. The credit to GDP gap, a proxy for excessive leverage in the banking sector, increased significantly among the service-based economies in the lead up to the 2008/09 crisis but declined afterwards. Recent data show that the risk of excessive leverage is not a problem but some commodity-based producers do have positive credit to GDP gaps that suggest it may be prudent to monitor this closely to prevent a build-up of vulnerabilities in this area (See Chapter 5). Additionally, there is some evidence in certain countries that credit unions might have taken up some of the risk-taking slack and increased

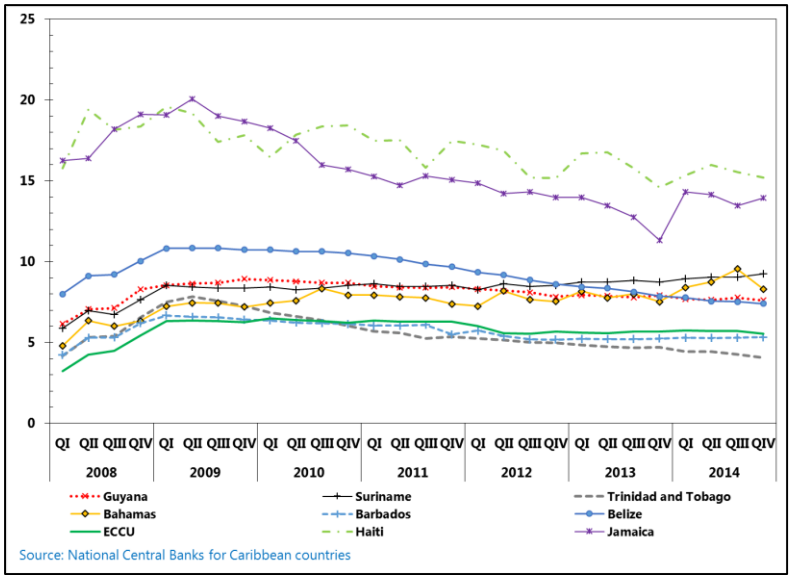
their share of total private sector credit which suggests that these institutions should be more closely monitored.

A significant part of the increase in credit is driven by a steady and uninterrupted rise in real estate credit as a percentage of total private sector credit, which might reflect a certain degree of concentration risk. Credit growth in the region increased significantly in the post-crisis era, especially for the commodity producer economies (Table 1.2). The corresponding figures for the period 2013-2014 was relatively muted but the authorities need to guard against any incipient real estate bubble, as a sharp fall in real estate prices and foreclosures could significantly impair asset quality and the profitability of the commercial banking sector.

Interest Rate Risk

Interest rate risk refers to abrupt interest rate changes that could disrupt market as well as credit activities to impinge the fair value of fixed income bonds and asset quality, respectively. Interest rate dynamics in the Caribbean have generally been relatively stable except in jurisdictions affected by episodic volatility in their foreign exchange markets. More importantly, the spread between domestic rates and benchmark US interest rates have been stable and indeed interest rates in the region have tracked US rates fairly closely over the last five years (Figure 1.8). The inevitable increase in domestic interest rates as US interest rates normalize is therefore unlikely to cause disruption to credit activity since it is likely to be very gradual. Higher lending rates in a context where some countries have relatively high NPLs, however, bears close monitoring to ensure that expected interest rate increases do not intensify any problems in this area.

Figure 1.8: Commercial Bank Average Lending Rate



Source: National Central Banks for Caribbean countries

Liquidity Risks

Liquidity risks for Caribbean banks appear relatively low as most indicators of liquidity do not show any liquidity pressures in any market. In particular, the average liquid assets to total assets

ratio in 2014 was 28.2 per cent compared to 27.0 per cent in 2013. Over the same period the liquid assets to short-term liabilities ratio increased marginally from 38.6 per cent to 41.4 per cent. Fairly high levels of liquidity constitute a traditional operational practice of banks operating in the Caribbean and the authorities have often had to "mop-up" excess liquidity if price stability is threatened.

Sovereign Risk

Concerning sovereign risk, important financial institutions are vulnerable to significant degrees of exposure to sovereigns in the region and the highly indebted nature of some countries means this is potentially a significant source of risk. Moreover, the indebted figures tend not to include government guarantees and other contingent liabilities or shortfalls in national insurance schemes and provident funds. There is also the institutional convention of not provisioning for the possibility of government delinquency in the servicing of its debt. However, a number of Caribbean countries have been or are currently in various forms and phases of structural adjustment and restructuring which has resulted in significant improvements in terms of fiscal and debt sustainability resulting in significant mitigation of the short-term risk.

Foreign Exchange Risks

Table 1.3: Foreign Exchange Reserves Computed as Months of Import Cover, 2013/2014

Producer-Type Economies	2013	2014	% Change 2013/2014
Guyana	3.9	3.6	-8.1
Suriname	3.4	2.7	-20.6
Trinidad and Tobago	12.0	12.7	6.2
Commodity – Based Producers Average	6.44	6.35	-1.4
Bahamas	2.6	2.7	3.8
Barbados	3.7	3.6	-2.2
Belize	5.0	5.7	14.0
ECCU	4.5	5.4	20.0
Haiti	8.4	6.4	-24.0
Jamaica	2.9	4.2	44.8
Services - Based Producers Average	4.5	4.7	3.3
Overall Average	5.2	5.2	3.8

Source: Calculations based on data provided by the National Central Banks for Caribbean countries.

With respect to foreign exchange risks, both financial institutions and host countries are exposed to varying degrees. At the macro level, exchange rates in some jurisdictions have depreciated in the post-global crisis period. Recent declines in import cover, even for commodity-based producers, are also a risk factor that must be closely monitored (Table 1.3). Commercial banks as a group, which account for the bulk of financial system assets in the region, had an average net open position in foreign exchange to capital of 28.1 per cent, with a maximum of 71.3 per cent and a minimum of 4.4 per cent in 2014. This compares with 2013 figures of an average of 91.6 per cent and a minimum of 9.3 per cent. Changes in the banks' net open position have implications for susceptibility to sharp exchange rate changes. A significant degree of dollarization in financial transactions could increase the foreign exchange risk.

Table 1.4: US Dollar Deposits as a percentage of Total Bank Deposits, 2013/2014

CARICOM Jurisdiction	End-December 2013	End-December 2014
Bahamas	4.3	3.5
Barbados	5.4	5.0
Belize	5.1	4.4
ECCU	10.5	11.7
Guyana	3.0	2.9
Haiti	56.2	54.9
Jamaica	42.5	44.5
Suriname	52.5	52.8
Trinidad and Tobago	24.2	21.6
Average	22.5	22.4

Source: Based on data provided by the National Central Banks for Caribbean countries.

Already, certain Caribbean countries permit both foreign residents and local citizens to hold dollar-denominated risks but there could arise a mismatch between foreign exchange liabilities and foreign exchange assets, including currency and maturity issues. As Table 1.4 illustrates, foreign currency deposits are very important to at least four jurisdictions – Haiti, Jamaica, Suriname and Trinidad and Tobago. For the Region as a whole, the average US dollar (US$) deposits, as a percentage of total bank deposits, was 22.50 in 2014, very slightly above that for 2013 (Table 1.4). In certain jurisdictions, banks have been actively searching for more profitable investment opportunities overseas, such that the foreign/local asset exposure increased.

Exposures to Caribbean Non-Financial Sectors

Caribbean countries' export earnings are highly concentrated and extremely dependent on either tourism-related services or primary commodities. They are therefore vulnerable to international shocks to the international tourism and commodity markets. The financial sector is exposed to the above vulnerabilities in the non-financial sector and related risk and other vicissitudes. The banks' outturn, following the onset of the global crisis, is partly a reflection of the composition of their asset portfolios. The banks are less involved in financing of the commodities sector, which is more dependent on foreign investment and retained earnings. In the insurance sector, government securities and corporate bonds are a significant part of the asset portfolio but, in recent years, local and foreign equity have risen appreciably as insurance companies (and the pensions sector) attempt to seek higher yields, given the lack of buoyancy in the domestic economies. This greater appetite for risk-taking poses management challenges for the companies and creates a need for keener oversight by the authorities with respect to maintaining financial stability.

1.5 RISKS AND VULNERABILITIES EMANATING FROM MACRO-IMBALANCES

There are a number of macroeconomic imbalances that can act as a trigger and/or magnify certain financial risks. One important macroeconomic imbalance relates to the problem of deficits on the current account of the balance of payments. The region's balance of payments had been an area of concern prior to the recent international economic and financial crisis due to underlying structural

issues, as well as vulnerability to international economic shocks and natural disasters. These vulnerabilities intensified in the post-crisis period with the service-based economies registering bigger imbalances relative to their commodity-based counterparts. This divergence abated somewhat in 2014 as commodity prices softened.

Weakness in this area is ameliorated somewhat by the fact that foreign direct investment flows (FDI) into the region are fairly strong. In fact, FDI flows have actually increased in the post-crisis period in some jurisdictions. The commodity-based producers tended to do better than their service-based counterparts in this area. These factors imply that although the region has serious weaknesses on the external accounts it also has a fair degree of resilience in terms of buffers against international shocks.

Other important imbalances relate to the fiscal and sovereign debt situation. Many Caribbean countries had pre-existing vulnerabilities in these areas which intensified in the wake of the international financial and economic crisis. Most recently, the overall fiscal balance as a percentage of GDP for the region improved slightly from -4.5 per cent in 2013 to -4.1 per cent in 2014. This improvement was driven in large part by increased tax revenue as growth improved in tourism-based economies driven by stronger growth in the USA, the UK and Canada, the major sources of their tourist arrivals.

The Caribbean region's indebtedness recorded a slight decline moving from 66.1 per cent to 65.9 percent of GDP between 2013 and 2014. The level of indebtedness has, however, declined significantly from the pre-crisis period reflecting the adjustment that the more indebted service-based economies have been pursuing over the last five years. External debt is, on average, slightly more than half of total debt and the foreign exchange servicing of this debt component (payment of interest plus principal/total export earnings) is somewhat more onerous for the service-based economies. The total debt service/government revenue ratio is also somewhat higher for the service-based economies relative to the commodity-based counterparts (despite significant domestic debt re-negotiation/exchange in recent years).

1.6 SYSTEMIC AND REGIONAL CONTAGION RISKS

While all the risks identified above will continue to be relevant, risks that have the potential to imperil the region's financial system is the focus of this section.

First, certain banks and insurance companies are large enough for each to account for a very significant share of the sector's assets and liabilities in the national domain, such that a collapse

could imperil the integrity of the financial system. In addition, a collapsing SIFI may have conglomerate-style ownership and network arrangements with firms in other financial and real sectors, thus generating a transmission of risk to these entities. In addition to the national dimension, there is almost invariably a regional dimension in that the Systemically Important Financial Institution (SIFI) has a network of affiliates around the region which could imperil the regional financial system. In order to cope with this situation, the authorities in the various jurisdictions have devised, *inter alia*, a system of cross-border supervision in which information is exchanged and joint assessments made of the workings of particular SIFIs, from time to time. This Supervisory College concept is an important mechanism for identifying and evaluating cross-border risk and an important element in the early warning system.

A study of the extent of regional financial interconnectedness in the Caribbean indicates the major financial groups in the Caribbean such as Scotiabank, First Caribbean, Royal Bank of Canada, Republic Bank and Sagicor have a large presence in the region. Using the latest available data as at end-June 2013, banks and insurers in the region had significant total exposures to cross-border claims of over 10 per cent of total assets particularly in the case of Barbados, Guyana, Jamaica, Suriname and Trinidad & Tobago.

None of the financial sectors in the region had greater than 10 per cent of total assets exposed to sovereign assets based on positions at end-June 2013. Despite representing small exposures relative to total assets at end-June 2013, regional sovereign cross-border claims of banks and insurers were more significant than inter-institutional exposures, with the five largest exposures in United States dollar terms being to regional sovereigns (See Figure 5.16). Further, these institutional claims were on the domestic sovereign in each case.

The structure of the regional cross-border network also appears to be incomplete with Belize, Suriname and Haiti showing limited interconnectedness with the rest of the region at end-June 2013. In contrast, Barbados, Jamaica and Trinidad & Tobago appear to be most susceptible to regional contagion with a greater clustering of exposures compared to the rest of the region. This suggests the greater importance of a regional approach to managing potential contagion for these three countries.

1.7 FINANCIAL POLICY REFORM: LEGISLATIVE, REGULATORY AND SUPERVISORY DEVELOPMENTS

As a result of the global crisis, and in keeping with revised best practice guidelines of the international organizations, there has been a thorough ongoing attempt to effect financial sector

reform in the various national jurisdictions. Much progress has also been made with respect to regionalizing the policy framework, given the considerable degree of regional financial integration.

With respect to strengthening the Caribbean institutional frameworks, a Regional Financial Stability Coordination Council (RFSCC) was created to buttress the work of the Committee of Central Bank Governors (CCBG). In addition, the Caribbean Group of Bank Supervisors (CGBS) was given new consolidated (cross-border) supervision responsibilities and a financial stability department (or committee) was created in many of the national central banks. With respect to the non-bank sector, the Caribbean Association of Insurance Regulators (CAIR); the Caribbean Association of Pension Supervisors (CAPS); the Caribbean Confederation of Credit Unions (CCCU); and the Caribbean Group of Securities Regulators (CGSR) all played important roles in enhancing the financial stability framework in the Caribbean. Their activism was a reflection of the fact that national regulators could not deal comprehensively with financial stability issues in their jurisdictions without reference to connected countries.

Important legislative, regulatory and supervisory developments occurred in each of the major financial sectors. The typical Caribbean Central Bank's legislative powers were upgraded and the institution was assigned stability and quasi-development roles, in addition to the traditional monetary role of inflation control. Banking legislation was strengthened and modernized, in keeping with the pivotal role of that institution in the financial sector and its potential for transmission of risk and contagion. The authorities are also addressing the issue of more intensive supervision of bank asset portfolios. Like banks, some insurance companies were also seen to have systemic and region-wide importance and so the sector was subjected to an equally in-depth policy reform agenda. Credit union reform was also initiated with several jurisdictions identifying the central bank as the regulator of choice for credit unions.

However, there are still policy gaps remaining to be filled, including the following:

- Some jurisdictions are still grappling with the choice between the single regulator concept and the multiple regulator approach;
- Capital frameworks for the respective sectors need to be enhanced in line with international trends;
- The systemically important financial institutions need to be identified and a decision made as to whether they should be subject to any special regulatory regime;
- Intensification of regional harmonization of legislation, relating to local asset ratios;

- Broadening the regional coverage of depositors' protection; and
- Finalising the Crisis Management and Resolution Framework.

1.8 CONCLUSION

The financial system in the Caribbean has weathered the international financial and economic crisis fairly well. However, while the operational practices of its dominant financial enterprises are in the main fairly traditional and risk averse, the Region's financial stability still bears careful watching, partly because of the risks and vulnerabilities emanating from significant macro-imbalances, the risks associated with its less than mature financial markets, the skewed nature of the exposure to the non-financial sectors, the limited degree of asset diversification in the critical banking and insurance sectors; the significant weighting of systemically important financial institutions (SIFIs); and the incomplete state of financial reform and restructuring in the various jurisdictions.

In this context, regional central banks and other important stakeholders have long recognized the need for a more comprehensive and regional approach to financial supervision and regulation and have continued to build up the financial stability architecture in the region. These efforts have led to the continuous upgrade over time of the financial stability framework in the Caribbean. The regional authorities are currently focused on conducting not only stress tests on national financial systems but also cross-border contagion stress tests which are at the heart of regional macroprudential surveillance. These stress tests on individual institutions are aimed not just at estimating the resilience of domestic financial systems, but at seeing how failure of individual institutions would propagate through the region, and therefore whether there are domestic risks that are regionally systemic in magnitude. These ongoing enhancements to the architecture for financial stability in the Caribbean reflect the commitment of regional stakeholders to continue improving the resilience of the financial system in the region.

Chapter 2: GLOBAL AND REGIONAL MACRO-FINANCIAL ENVIRONMENT

2.1 OVERVIEW

Caribbean economies, structurally open and dependent, are vulnerable to external shocks. The global economy has been recovering from the onset of the international financial and economic crisis. However, regional economies continue to face macro imbalances, created in part by the uneven and weaker than expected economic growth in the global economy and episodic volatility in financial markets. The forces driving the performance of the global economy have become increasingly complex with structural challenges and potential risks entrenching asymmetries and creating a mixed bag of winners and losers. This has often served to frustrate regional policy coordination which is critical to successfully confronting the myriad challenges facing the global economy.

The spillover effects on the performance of regional economies and, by extension, the performance of regional financial systems have been reflected in low growth which suggests significant output gaps, fiscal and debt sustainability issues and balance of payments imbalances. Notwithstanding these general observations, the regional economic performance itself has been uneven, reflecting differences in the structure of the economies and the size and nature of pre-existing vulnerabilities. In this context, financial stability challenges cannot be evaluated without reference to these structural challenges in the region. This chapter highlights the key developments in the global environment and how these have manifested themselves on regional economies.

2.2 GLOBAL ECONOMIC ENVIRONMENT

2.2.1 Economic Growth

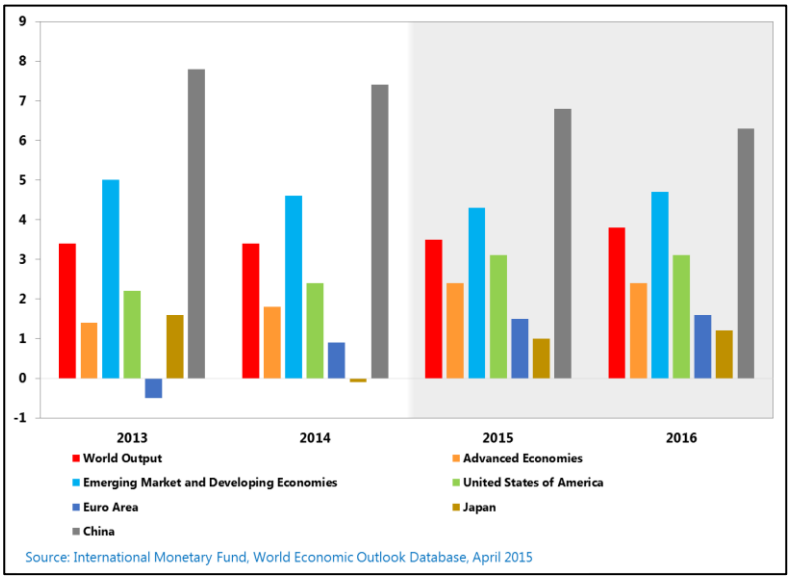
Over seven years after the onset of the international financial and economic crisis and despite improvements in key advanced economies, the global economy is still characterized by uneven and weaker than expected economic growth. The lower than expected outturn in 2014 and the propensity for reversals over the last five years reflect underlying structural weaknesses in some major economies and global vulnerability to major downside risks. These downside risks include long-standing issues such as inadequate and incomplete policy responses to structural weaknesses, problems with international policy coordination, lingering vulnerabilities in the international financial systems from the recent crisis and global imbalances, as well as more recent challenges such as commodity price and exchange rate volatility and risks associated with the normalisation of monetary policy in advanced economies. A continuing pattern of downward revisions in global economic growth forecasts is testament to these vulnerabilities and reversals.

The forces driving the performance of the global economy have become increasingly complex with structural challenges and potential risks entrenching asymmetries and creating a mixed bag of winners and losers. This often serves to frustrate international policy coordination which is critical to successfully confronting the myriad challenges facing the global economy. The performance of the global economy in 2014 has been characterised by divergence amongst major economies and differential performances between developed and emerging economies.

Overall global economic growth in 2014 was slower than expected at 3.4 per cent, mirroring the growth rate achieved in 2013. In particular, growth in the United States and the United Kingdom has improved strongly driven by accommodative monetary policy. This, very importantly, has led to a strengthening of the labour markets in these countries which suggests the improvements are more durable. In contrast, the recovery has been relatively weak and inconsistent in the Euro Area while the Japanese economy contracted in 2014 reflecting the serious vulnerabilities still confronting these countries due to legacy issues related to the global financial crisis, as well as other structural weaknesses. Additionally, growth in China has been decelerating to a still robust but slower pace as services replace manufacturing and real estate investments as the main drivers of growth. Emerging and developing economies also registered slightly slower growth in 2014 relative to 2013, with the Latin America and the Caribbean regions recording the most significant deterioration in growth. This was due to weaker external demand, domestic tightening and political uncertainties, compounded by geopolitical problems in the Middle East and Africa and domestic fragilities in some countries.

The fact that growth in the US disappointed in the first quarter of 2015 as growth declined by 0.2 per cent relative to the fourth quarter of 2014 highlighted the relative fragility of the recovery and the tendency to reversals that have characterised the global economic recovery over the last five years. Nevertheless, global economic growth is projected to improve from 3.4 per cent in 2014 to 3.5 per cent in 2015 based on improvements in developed market economies driven by lower oil prices, softer fiscal adjustment and accommodative monetary policy. Emerging and developing economies on the other hand are expected to record slower growth because of developments in China, the weaker performance of oil exporters and slower growth in Latin America as commodity prices weaken. By 2016 the global economy is projected to grow by 3.8 per cent due in large part to expectations of a better performance from emerging and developing economies as commodity prices start to rise, a rebound in world trade and the normalisation of growth in countries growing well below potential (Russia, Mexico and other parts of Latin America). Moreover, it is expected that 2016 could mark the beginning of the monetary tightening cycle in the USA and the UK which is likely to result in slightly lower growth in those countries in 2017 (See Figure 2.1).

Figure 2.1: Global Economic Growth (%)



Source: International Monetary Fund, World Economic Outlook Database, April 2015

In this environment, although risks to global growth prospects have abated somewhat, they are still mostly weighted on the downside. These include potential spikes in commodity prices, particularly oil prices above current low expected prices embedded in oil futures and disruptive financial asset price shifts driven by expectations about the monetary policy stance for major economies. This in turn can cause a reversal in capital flows to developing countries and further strengthening of the US dollar against other major currencies related to expected interest rate and growth changes, creating huge challenges for portfolio management and negative trade implications in some emerging and developing countries. Additionally, increased geopolitical risks which have implications for the international tourism industry, the possibility of stagnation in Europe and Japan and slower growth in important emerging and developing countries are important risks to global growth prospects.

2.2.2 International Commodity Markets

Table 2.1: Selected Commodity Prices

Commodity	Actual				Forecast	
	J-D 2012	J-D 2013	J-D 2014	Latest October 2015	J-D 2015	J-D 2016
Crude Oil – average $/bbl	105.0	104.1	96.2	46.0	53.0	57.0
Natural Gas US - $/mmbtu	2.8	3.7	4.4	2.0	3.0	3.0
Aluminium - $/mt	2023.0	1847.0	1867.0	1516.0	1850.0	1878.0
Rice Thai- $/mt	563.0	505.9	422.8	373.0	415.0	411.0
Sugar (World) - $/kg	0.5	0.4	0.4	0.3	0.3	0.3
Bananas (US) - $/kg	1.0	0.9	0.9	0.9	1.0	1.0

Source: Commodity Price Pink Sheet, November 2015 and Commodity Price Forecast April 2015, World Bank.

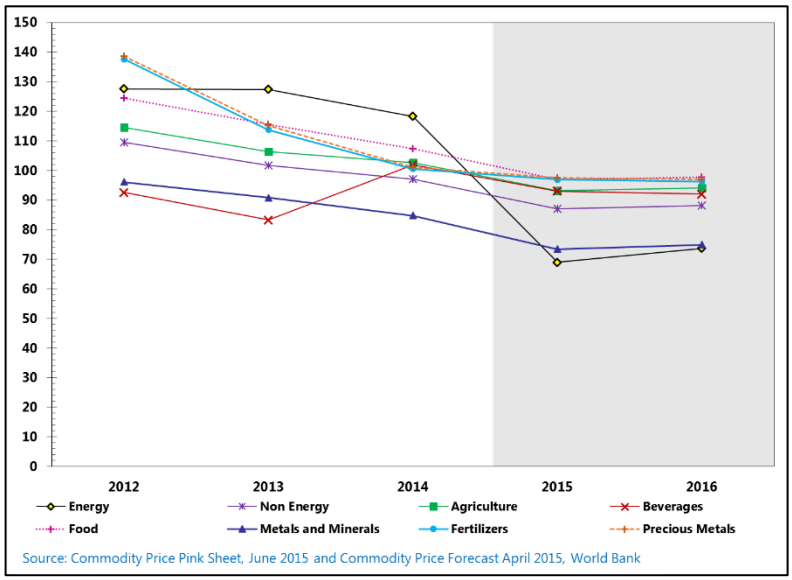
Commodity prices have broadly tracked the trajectory in the global economy with prices softening due to decreased demand from important emerging markets, most notably China. The fact that oil prices have fallen more sharply than other commodities suggests that factors idiosyncratic to the oil market are at play. In particular, improvement in supply from non-OPEC countries, the maintenance of supply volumes by OPEC in the face of decreased demand, increased energy efficiency and the appreciation of the US dollar against major currencies have also helped to drive prices lower in 2014 when compared to 2013 (See Table 2.1). This softness in energy prices continued unabated in spite of significant geopolitical risks

in the Middle East, North Africa and Russia. Natural gas prices trended higher in 2014 relative to 2013 but the latest data show that prices have come down significantly with the same trend observed for aluminium prices. Agriculture prices such as rice and sugar also softened but banana prices improved slightly over the review period.

The main commodity groups, except beverages, all declined in 2014 relative to 2013, with energy, metals, agriculture, fertilizers and precious metals all falling significantly in this period. This actually represents a trend that began as far back as 2012 with metals and agriculture prices. The sharp drop in metals to date is due in large part to improved supplies and a slowdown of the construction sector in China. In the case of agricultural commodities, prices softened through a combination of bumper harvests, weaker demand and a stronger US dollar (See Figure 2.2).

The prospects for commodity prices indicate that prices for individual commodities of interest, especially oil prices, are likely to soften further in 2015 with a mild recovery expected in 2016. The only exceptions include rice prices which are expected to continue falling in 2016 and banana prices which are expected to strengthen in the next two years. Key commodity indices are projected to decline in 2015 due mainly to abundant supplies and then recover moderately in 2016 but stay below the average price for 2014 as the market rebalances and as global demand improves and worries about geopolitical risks in oil-producing countries ease. The exceptions to this trend include beverages, fertilizers and precious metals which are all expected to soften further in 2016 (See Table 2.1 and Figure 2.2).

Figure 2.2: Commodity Price Indices (2010=100)



These trends have huge implications for global growth since the prospects for growth in both developed and developing and emerging economies are dependent on commodity price developments. Commodity price trends also matter for the degree to which countries can forestall tightening policy with the attendant implications for interest and exchange rate risks.

2.2.3 The International Tourism Industry

Despite serious concerns about the global economy, the international tourism industry continues to show resilience and is one of the few sectors to grow strongly. The United Nations World Tourism Organisation (UNWTO) estimates that, as a worldwide export category, international tourism is ranked fourth after fuels, chemicals and foods. Very importantly, it is ranked first in many developing countries. UNWTO indicates that international tourist arrivals increased by 4.4 per cent relative to 2013 to reach 1,135 million visitors in 2014 (See Table 2.2).

This growth in the international tourism industry, which is above the historical average of four per cent, in an environment of uneven global growth and geopolitical problems in Ukraine, the Middle East and North Africa, highlights the resilience of this sector. International tourism receipts also

Table 2.2: International Tourism Industry: Arrivals and Receipts

Country/Region	Total Arrivals (Millions)		Total Receipts (US$ Billions)		% Change Arrivals		% Change Receipts	
	2013	2014	2013	2014	12/13	13/14	12/13	13/14
Europe	566.6	583.6	491.7	508.8	4.9	3.0	4.2	3.6
Northern Europe	68.0	72.5	74.8	80.7	4.1	6.7	7.6	5.1
Western Europe	170.8	174.6	167.1	171.1	2.8	2.2	2.2	1.5
Cent. /East. Europe	126.9	121.6	60.3	57.7	7.3	-4.1	3.5	-0.8
South./Med. Europe	201.0	214.9	189.5	199.3	5.6	6.9	4.8	6.2
Asia and the Pacific	249.8	263.4	360.7	376.9	6.8	5.4	8.6	4.2
North-East Asia	127.0	136.3	184.9	198.1	3.4	7.3	9.3	5.2
South-East Asia	94.3	96.8	108.2	106.8	11.3	2.7	10.8	0.4
Oceania	12.5	13.2	42.9	44.8	4.6	5.8	2.4	7.1
South Asia	16.0	17.1	24.7	27.2	11.4	6.6	6.4	7.8
Americas	168.0	181.5	264.4	274.0	3.4	8.1	5.0	3.0
North America	110.7	120.9	204.7	210.7	4.0	9.3	5.4	2.0
Caribbean	21.1	22.5	25.4	27.3	2.8	6.5	3.9	6.9
Central America	9.1	9.6	9.4	10.2	2.6	5.6	4.0	7.6
South America	27.1	28.5	24.9	25.9	1.5	5.2	3.2	6.0
Africa	54.8	55.8	35.1	36.2	4.8	1.8	2.7	3.4
North Africa	19.6	19.8	10.2	10.5	6.0	0.6	-1.0	2.4
Sub-Saharan Africa	35.1	36.0	24.9	25.7	4.2	2.5	4.3	3.8
Middle East	48.2	50.4	45.1	49.2	3.4	4.6	-7.0	5.7
Advanced Economies	586.0	620.0	784.0	815.0	4.9	5.8	5.8	3.2
Emerging Economies	501.0	514.0	413.0	430.0	4.5	2.6	4.0	4.8
World	1087.0	1135.0	1197.0	1245.0	4.7	4.4	5.1	3.7

Source: UNWTO World Tourism Barometer Volume 13, April 2015.

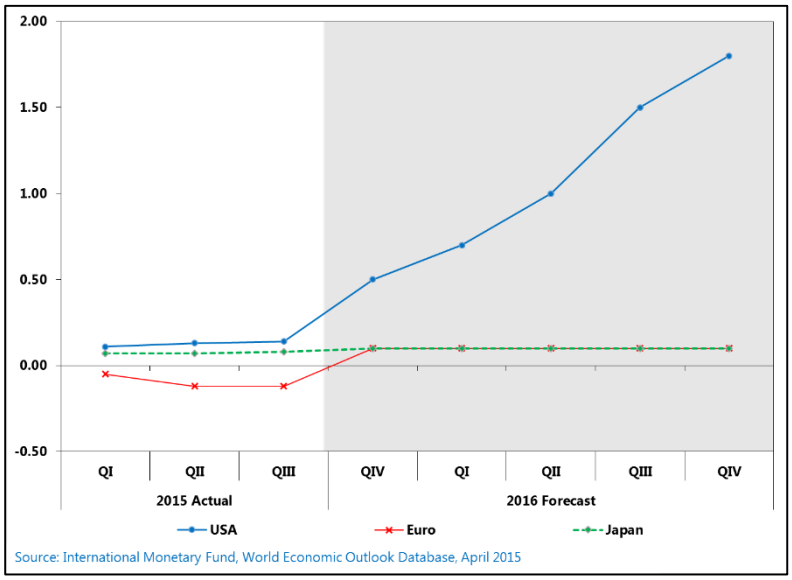
increased by US$ 48 billion to reach a record US$ 1,245 billion. When the US$ 221 billion from international passenger transport is added international tourism would have generated US$ 1.5 trillion in export earnings, proving this sector's ability to boost economic growth, export earnings and employment.

In terms of the regional distribution of tourist arrivals, advanced economies (5.8%) grew at a faster pace than emerging economies (2.6%) in 2014 when compared to 2013, reflecting the differential growth performance of these two groups of countries. Traditional source markets such as the USA, Canada and the UK increased expenditure abroad (4%- 6%) driven by better economic performance.

The outlook for the tourism industry in 2015 is for growth of between three and four per cent. The appreciation of the US dollar presents a price competitiveness challenge for developing and emerging countries which are highly tourism-dependent and pegged to the US dollar. This challenge is meliorated somewhat if the major source market for tourists into these economies is the USA where consumer expenditure is improving because of stronger economic growth.

2.2.4 The Normalisation of Monetary Policy in Advanced Economies and Financial Risks

Figure 2.3: International Policy Interest Rates (%)



Source: International Monetary Fund, World Economic Outlook Database, April 2015

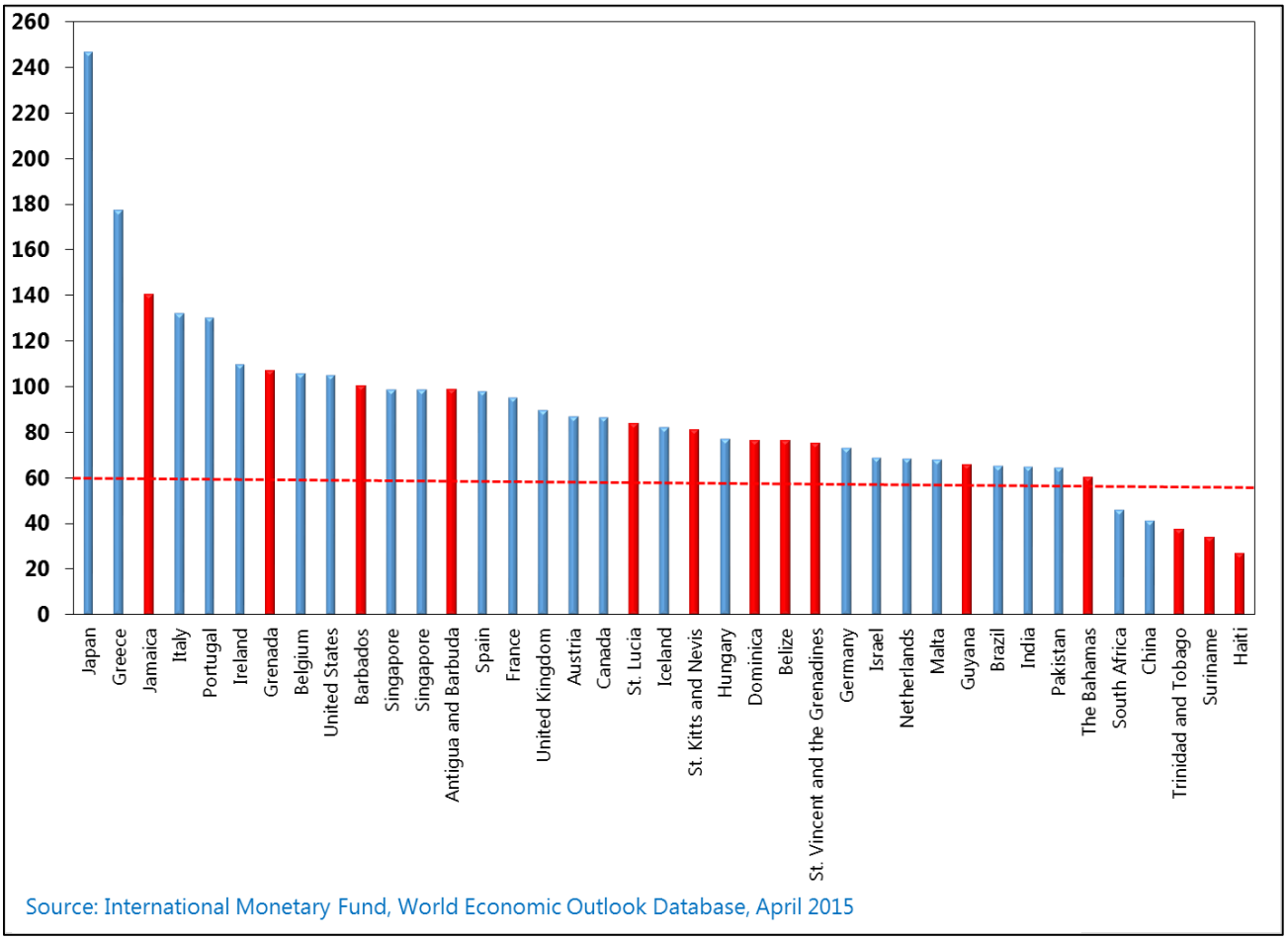
The divergence in growth between advanced economies and the related strengthening of the US dollar have increased portfolio tensions in the market and exposed some emerging and developing countries to market and liquidity risks. These developments have some volatility in financial markets which have heightened risks for countries during these episodes. The potential for liquidity problems to occur, especially in countries with high external funding requirements in this tighter funding environment, is now a major risk for some emerging market economies. This could set the stage for sudden reversals in capital flows and the attendant crisis in capital and currency markets in some emerging and developing economies. Indeed, this has already happened in some emerging markets.

The real possibility of the normalisation of monetary policy in the US will lead to interest rate divergence amongst major economies (Figure 2.3) which would accentuate these challenges and is one of the main risks to global economic growth. Indeed, many market participants are already pricing this risk into their decision making with the attendant knock-on effects on capital flows and exchange rates.

2.2.5 Sovereign Debt and Fiscal Consolidation

A major drag on the international economy recovering to pre-crisis levels has been the very high degree of indebtedness in certain major advanced economies (Figure 2.4) and problems related to attempts to rectify the fiscal imbalance that gave rise to this situation.

Figure 2.4: Gross Government Debt 2014 (% of GDP)



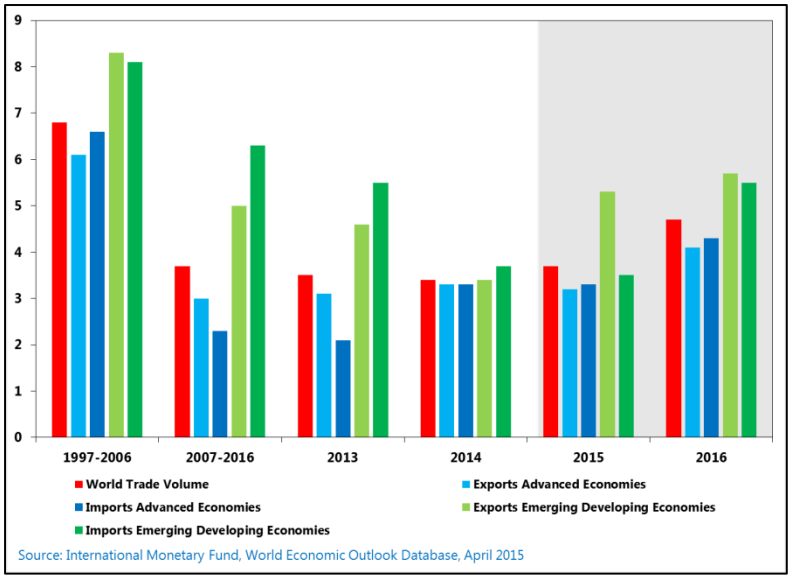
Source: International Monetary Fund, World Economic Outlook Database, April 2015

Nervous market sentiment and fear that servicing of the debt had become an untenable burden to governments has led to fiscal sustainability programmes with resulting tension and conflict *vis a vis* another government objective of promoting growth and creating jobs. Moreover, the high level of private indebtedness, and the resulting cautious mood of consumers, has not helped the situation.

2.2.6 Trade and Investment Flows

With the onset of the global financial crisis, international trade slowed down and continues to trend below the historical average. In particular, whereas in the decade before the crisis global trade in goods and services expanded at an annual average rate of 6.8 per cent, in 2014 merchandise trade increased by 3.4 per cent compared to 3.5 per cent in 2013. A major factor driving this slowdown is weak global demand, rather than due to higher tariffs, difficulties in the implementation of regional trade agreements, or other supply side difficulties. Very importantly, imports in developed market economies continue to trend significantly below historical averages with the 1997-2006 period averaging 6.6 per cent growth in imports from developed market economies compared to growth of 2.3 per cent in the post 2007 era (World Economic Outlook, April 2015, IMF).

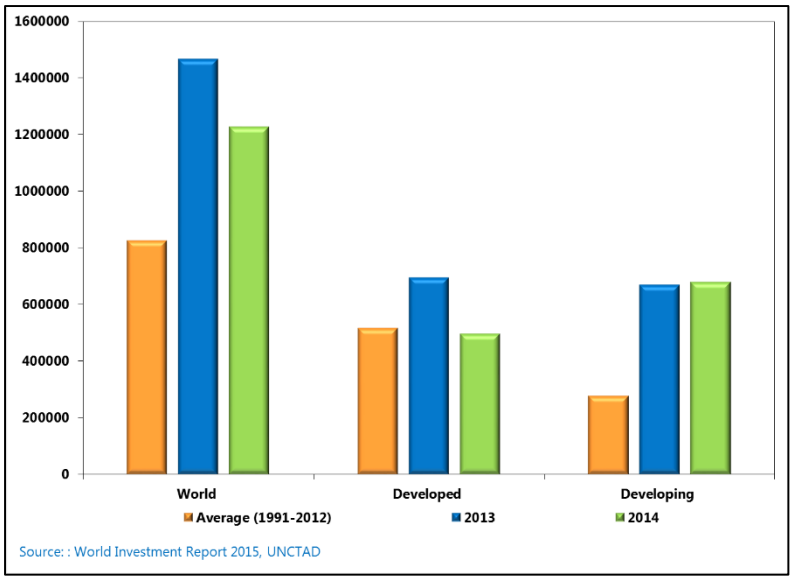
Figure 2.5: World Trade (% Change)



Source: International Monetary Fund, World Economic Outlook Database, April 2015

Recent trends in international trade reflect the uneven growth in 2014 with overall trade volumes falling slightly but with advanced economies increasing their trade volumes while emerging and developing countries recorded a fall-off in trade volumes between 2013 and 2014. Trade is however expected to increase in 2015 and 2016 to 3.7 per cent and 4.7 per cent respectively but still track below the pre-crisis average trade growth of 6.8 per cent (see Figure 2.5).

Figure 2.6: World Foreign Direct Investment Flows (US$M)



Source: : World Investment Report 2015, UNCTAD

Global foreign direct investment (FDI) inflows also fell by 16 per cent in 2014

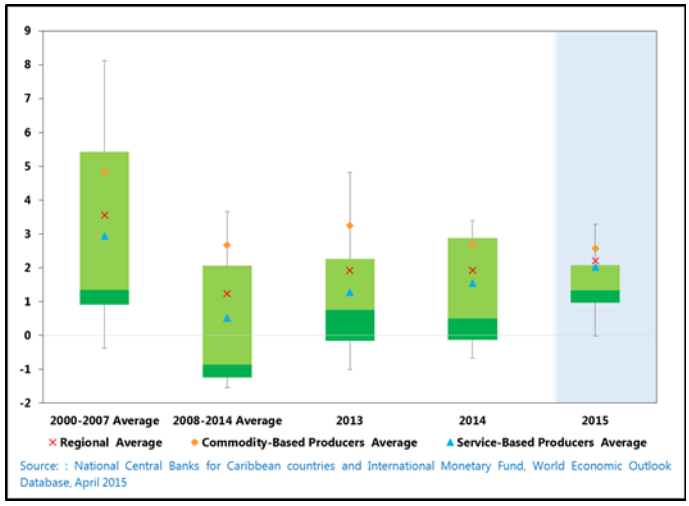
relative to 2013 driven by a difficult economic environment, policy uncertainty and elevated geopolitical risks. Declining FDI inflows into developed economies was the main factor underpinning this decline since FDI inflows to developing countries increased by two per cent with China becoming the world's largest recipient of FDI (Figure 2.6). The overall performance by developing countries, however, masks differential performances across this group of countries. In particular, FDI declined in South America while FDI increased in Asia on the strength of China. In the context of the expected normalization of US monetary policy and the related implications for capital outflows this is a serious downside risks for developing countries, especially those with pre-existing vulnerabilities on their external accounts and those that are highly dependent on foreign capital.

2.3 REGIONAL ECONOMIC ENVIRONMENT AND MACROECONOMIC IMBALANCES

The highly open nature of CARICOM countries means that global economic developments drive the economic fortunes of the region. The global economy has been recovering, albeit slowly, since the international economic and financial crisis in 2008. The recovery has, however, been characterized by slower than expected growth, uneven growth across regions, many reversals and episodic volatility in financial markets. Growth in the region has been negatively affected by these developments which in many cases accentuated pre-existing vulnerabilities in areas such as fiscal sustainability, the external accounts and financial stability. In this context, financial stability challenges cannot be evaluated without reference to these structural challenges in the region. The main structural imbalances in the region include low growth which suggests significant output gaps, fiscal and debt sustainability issues and balance of payments imbalances.

2.3.1 Regional Economic Growth

Figure 2.7: Real GDP Growth of CARICOM Economies (Annual % Change)



The post-2008 period has been characterized by slower growth for most CARICOM countries relative to the period before the international financial and economic crisis. These performances were driven by a difficult international economic environment and structural weaknesses in many countries. Commodity-based producers have consistently outperformed the serviced-based economies but the gap has since narrowed as commodity prices fell off in 2014. The difference in performance

across countries was widest during the peak and trough in the growth cycle due to asymmetric responses to commodity price shocks (Figure 2.7).

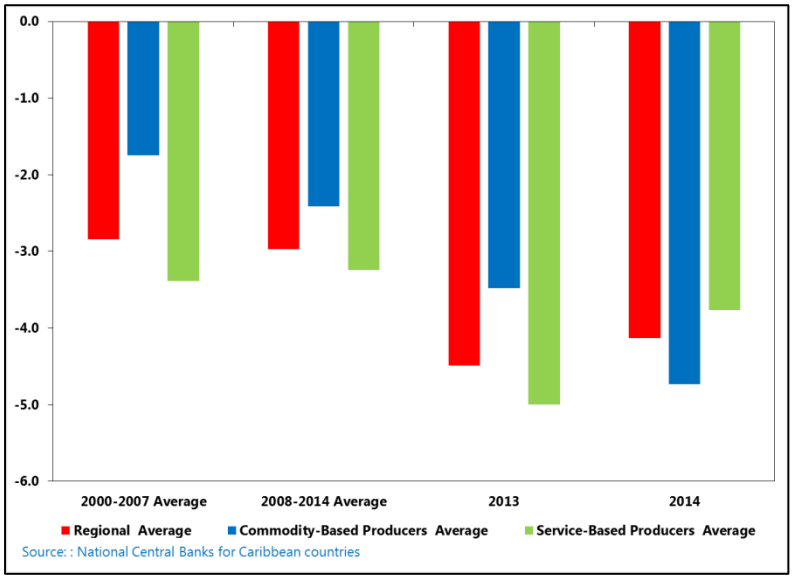
In the review period, average regional growth has improved from 1.7 per cent in 2013 to two per cent in 2014. This was due mainly to better outturns in tourism-dependent economies driven by better economic performance of important source markets such as the USA and the UK. The commodity-producing economies experienced moderate declines in their level of economic activity in 2014 partly because of the drastic drop in commodity prices in the latter half of 2014 (Figure 2.7). Forecasts for 2015 suggest that growth dynamics in the region will be characterized by increased growth rates, as well as the convergence of performance across commodity and service-based economies, based on the continued improvement in the tourism-based economies and the soft commodity prices.

A related problem in this period of low growth is the apparent existence of significant negative output gaps in some countries given the prolonged period of low growth accompanied by high levels of unemployment, low core inflation rates and low interest rates. In this environment, there are potential problems for financial stability driven by issues of asset quality and profitability at banks, as well as major problem for life insurance companies and the fund management industry in the form of falling investment income and increased interest rate risks.

2.3.2 Fiscal and Debt Sustainability

Other important imbalances relate to the fiscal and sovereign debt situation. Many Caribbean countries had pre-existing vulnerabilities in these areas which intensified in the wake of the international financial and economic crisis (Figure 2.8). Most recently, the average overall fiscal balance as a percentage of GDP for the region improved slightly from - 4.5 per cent in 2013 to -4.1 per cent in 2014. This improvement was driven in large part by increased tax revenue as growth improved in tourism-based economies

Figure 2.8: Fiscal Balance in CARICOM Economies (% of GDP)



driven by stronger growth in the USA, the UK and Canada, the major sources of their tourist arrivals.

The Caribbean region's indebtedness was relatively static, moving from 66.1 per cent to 65.9 per cent of GDP between 2013 and 2014. Very importantly, the more vulnerable countries in terms of debt and fiscal sustainability are moving in the right direction.

The expansion of external debt was the main source of the increased total indebtedness for the majority of the countries. External debt is on average slightly more than half of total debt and the foreign exchange servicing of this debt component (payment of interest plus principal/total export earnings) is somewhat more onerous for the service-based economies (Figure 2.9). The total debt service/government revenue ratio is also somewhat higher for the service-based economies relative to the commodity-based counterparts (despite significant domestic debt re-negotiation/exchange in recent years).Very importantly though, the majority of countries beset by fiscal and debt sustainability pressures are moving in the right direction, that is, lower debt overhangs and stronger fiscal accounts (Figure 2.10).

Figure 2.9: Debt Overhang and Servicing in CARICOM Economies (% of GDP)

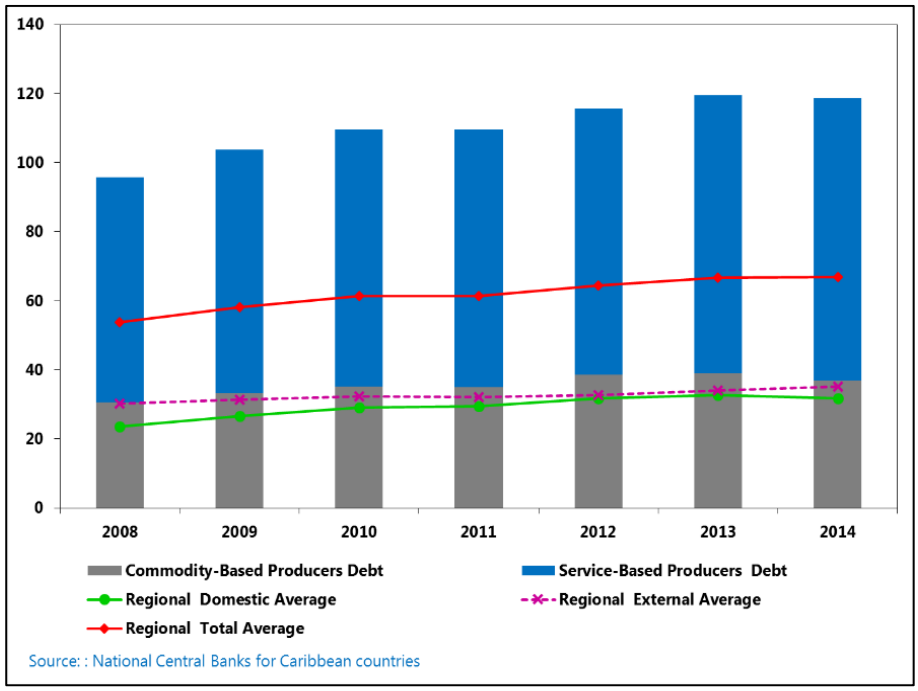
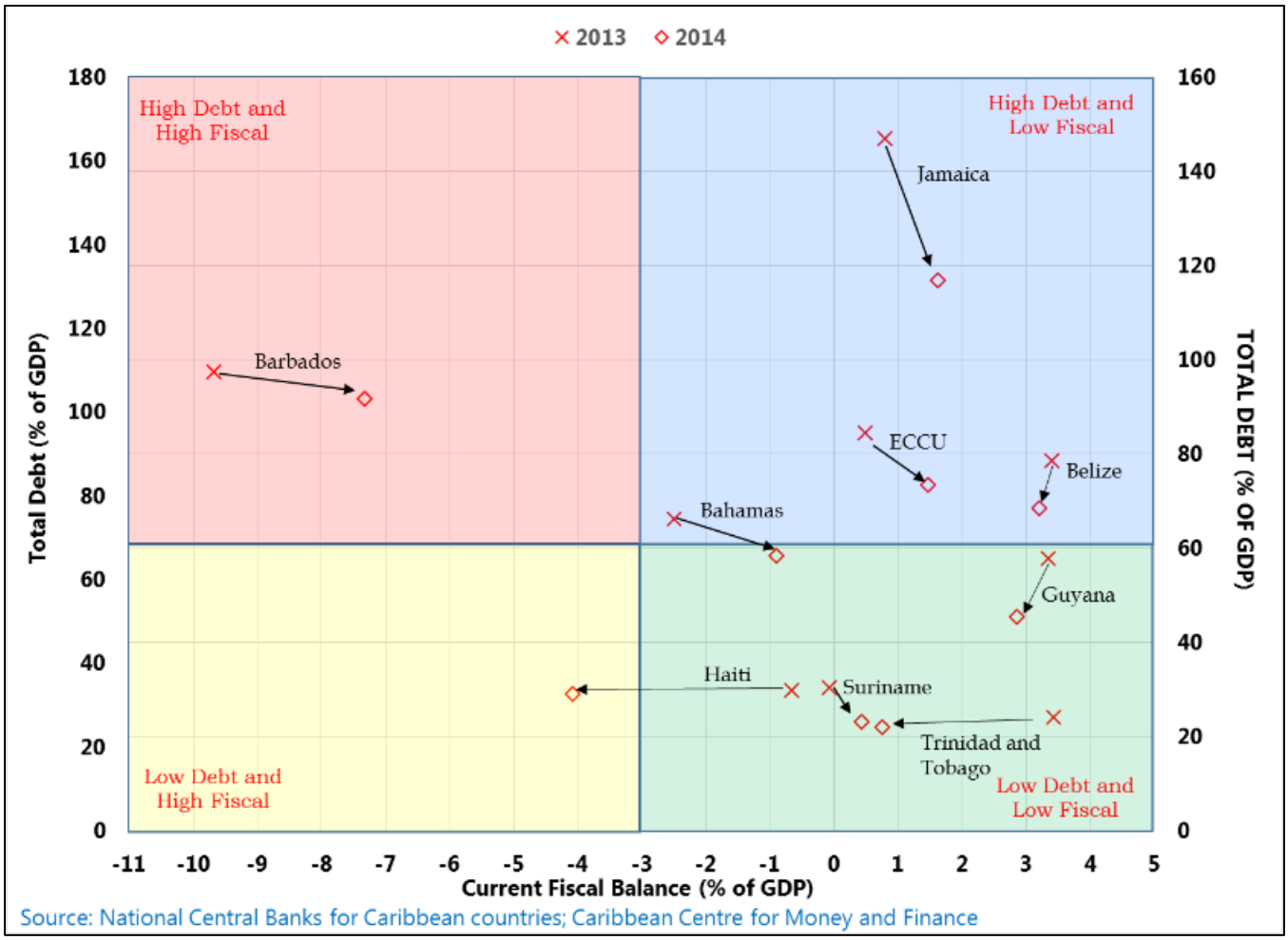


Figure 2.10: CARICOM Economies - Current Fiscal Balance and Total Debt (% of GDP)



Source: National Central Banks for Caribbean countries; Caribbean Centre for Money and Finance

2.3.3 External Imbalances

Figure 2.11: CARICOM Economies- External Current Account (% of GDP)

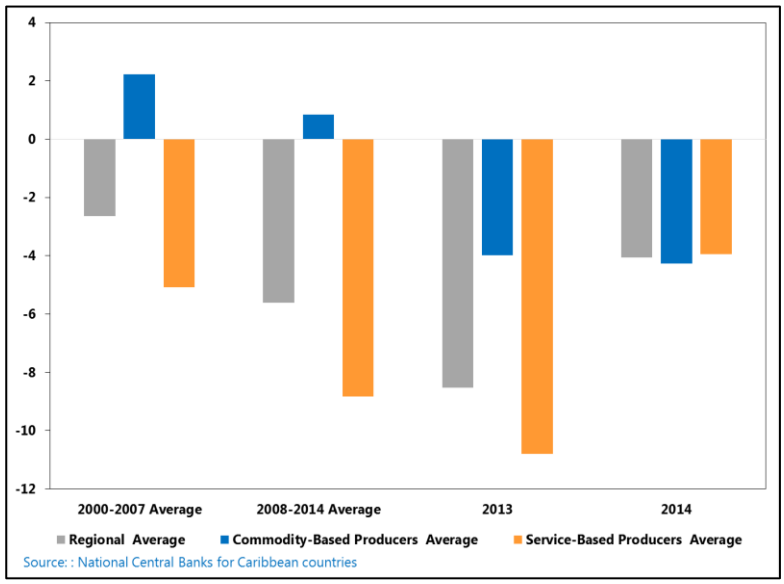
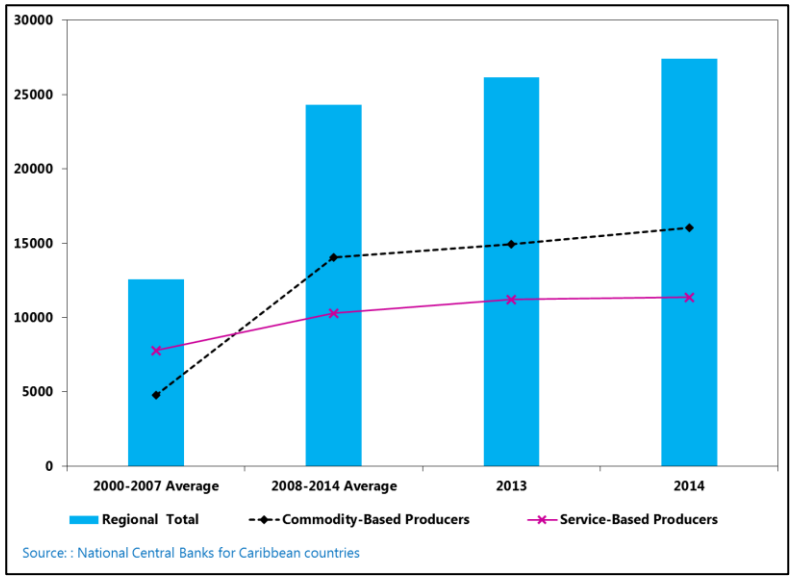


Figure 2.12: CARICOM Economies - Gross International Reserves (US$M)



The external current account balance is another major area of vulnerability for the region. The region's balance of payments had been an area of concern prior to the recent international economic and financial crisis due to underlying structural issues, as well as vulnerability to international economic shocks and natural disasters. These vulnerabilities intensified in the post-crisis period with the service-based economies registering bigger imbalances relative to their commodity-based counterparts. This divergence abated somewhat in 2014 as commodity prices softened (See Figure 2.11).

Weakness in this area is ameliorated somewhat by the fact that the region has fairly strong external reserves (Figure 2.12). Moreover, capital flows, especially FDI, have actually increased in the post-crisis period (Figure 2.13). These factors imply that the region may have a fair degree of resilience in terms of buffers against international shocks. In both cases the commodity-based producers tended to do better than their service-based counterparts in these areas. This combination of fiscal deficits, balance of payment deficits and a high level of indebtedness in some countries continues to prevent the CARICOM countries from employing effective counter-cyclical measures in the face of the adverse impact from the global economic downturn. The high import intensities in these countries also means counter-cyclical spending can worsen balance of payment deficits further limiting the

Figure 2.13: CARICOM Economies - Foreign Direct Investment (% Change)

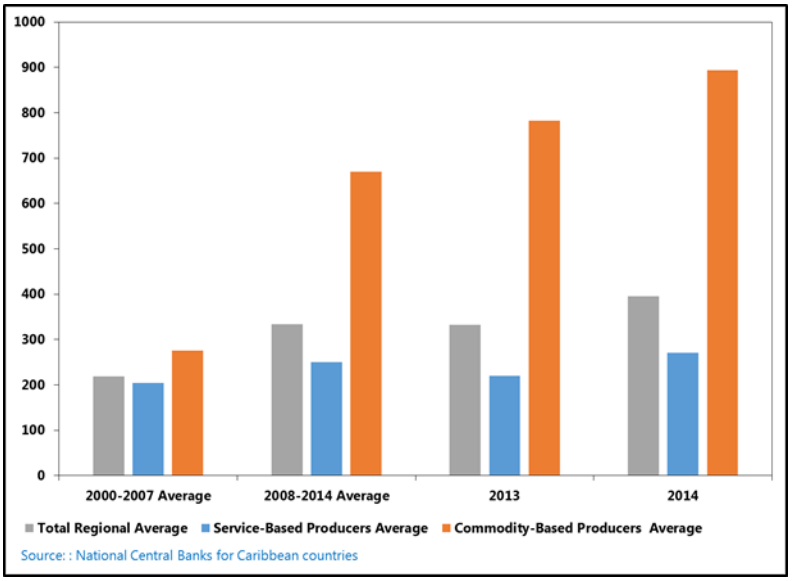
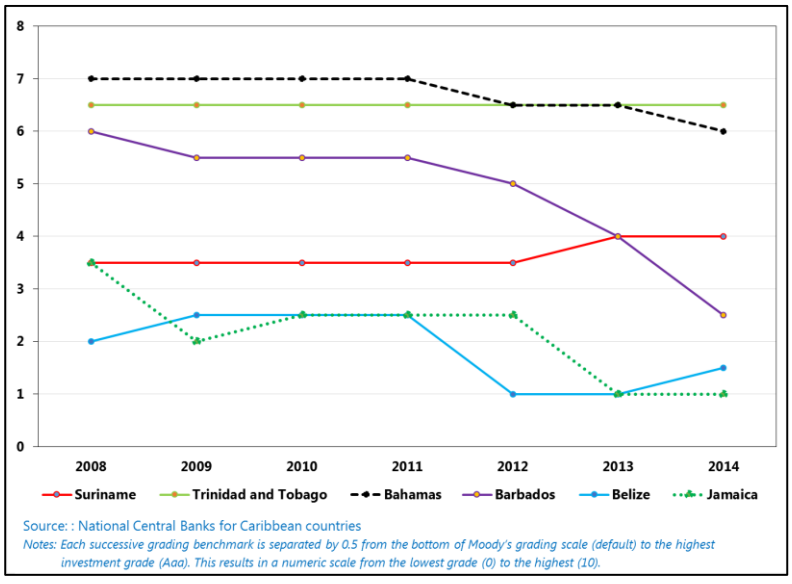


Figure 2.14: Recent Credit Ratings of Selected Caribbean Countries



ability of countries to pursue this strategy, especially when the duration of the slump is relatively long. These imbalances are of course not helped by the region's vulnerability to hurricanes and other natural hazards. These developments have invariably had a negative impact on some countries' credit ratings (Figure 2:14).

The region therefore appears to be improving slowly, not only in terms of the growth performance but also in terms of the control of imbalances on the fiscal and external accounts. Growth is, however, still slow by historical standards and the related problems of relatively high unemployment and low interest rates when viewed in the context of still significant macroeconomic imbalances in some countries present a number of financial stability challenges to policymakers in the Caribbean.

Given that the global economy in at least the short run will be characterized by moderate and uneven growth with many risks weighted on the downside, attention in the region should continue to focus on controlling emerging regional risks to financial stability and building up resilience by improving buffers to protect against international shocks. Very importantly, the resilience of the region can be improved by upgrading the architecture for monitoring and controlling risks to national and regional financial stability.

Chapter 3: CARICOM FINANCIAL SYSTEMS

3.1 OVERVIEW

The economies of CARICOM tend to have national financial sectors that are broadly similar as it relates to the types of institutions and services offered, patterns of ownership, markets and regulatory frameworks. These similarities may be attributable to common historical factors, the stage of economic development and factor endowments. However, there is some variation in the financial depth within the respective economies and in the way that non-banks are regulated. Financial markets are largely driven by the banking sector and, where other markets exist, they are unevenly represented across the region. However, the sector is undergoing change as governments seek to eliminate gaps, enhance the efficiency of the infrastructure and narrow differences among economies.

3.2 STRUCTURE OF THE FINANCIAL SYSTEM

The financial system[1] within CARICOM encompasses a wide range of institutions including commercial banks and other deposit-taking institutions (DTIs) such as credit unions, finance companies, trust and mortgage companies and building societies which offer traditional deposit and loan facilities to households and firms. While these institutions are not sophisticated by international standards, they complement their physical branches with access to banking services through technological products such as debit cards, credit cards, internet banking and mobile payments. The deposit-taking intermediaries are supported by development banks which are engaged in providing long term funding to the private sector and by life and general insurance companies. A range of investment instruments including bonds, listed stocks, mutual funds and pension funds provide alternative forms of investments in the market.

In 2014, total financial assets in the CARICOM area exceeded 120 per cent of regional GDP, with traditional banking system assets at 81.1 per cent and non-banking assets at 39.1 per cent. Insurance companies are estimated to be the largest category of non-bank institutions, with assets accounting for 19.7 per cent of GDP, but it should be noted that on-going data deficiencies contribute to some understatement of the size of the credit union and insurance sectors and, by extension, the non-

[1] This analysis does not incorporate entities licensed to provide financial services to non-residents only.

banking sector. However, given that the data gaps are principally in the smaller economies, the size of the financial sector depth is unlikely to vary significantly from the current estimate.

Table 3.1: Structure of CARICOM Economies Financial Systems (Total Assets as % of GDP) - 2014

	Bahamas	Barbados	Belize	ECCU[2]	Guyana	Haiti	Jamaica	Suriname[3]	Trinidad and Tobago	Caribbean Total
Banks	113.6	141.5	87.2	163.6	66.2	46.2	52.3	58.0	74.3	81.1
Credit Unions	4.1	19.9	22.5	15.4	0.9	1.1	5.3	0.1	6.5	6.6
Insurance Companies	19.5	34.7	6.9	12.0	7.7	n.a	20.7	8.5	29.4	19.8
Other DTIs[4]	n.a	27.3	n.a	n.a	15.6	n.a	52.2	n.a	5.3	12.9
Total	137.2	223.3	116.6	191.0	90.4	47.3	130.6	67.5	115.6	120.3

Sources: National Central Banks for Caribbean countries, World Council of Credit Unions, International Monetary Fund.

Table 3.1 shows the approximate size of the domestic financial sector assets in relation to GDP in the CARICOM territories. Banks are especially dominant in the fixed exchange rate economies of The Bahamas, Barbados and the ECCU sub-region, serving as the main source of lending and deposit taking. Credit unions have grown in significance across the region as an alternative to banks in a specialised segment of the market, but account for less than seven per cent of regional GDP. However, penetration as measured by credit union share of assets to GDP is in double digits in Belize, the ECCU and Barbados.

Table 3.2: Structure of CARICOM Economies Financial Systems: Number of Licensees (2014)

	Bahamas	Barbados	Belize	ECCU	Guyana	Haiti	Jamaica	Suriname	Trinidad and Tobago	Caribbean Total
Banks	8	6	6	40	6	9	6	9	8	98
Local	3	0	1	14	3	7	1	8	2	39
Foreign	5	6	5	26	3	2	5	1	6	59
Credit Unions	7	35	11	49	28	70	37	24	131	391
Insurance Companies	29	26	13	155	15	n.a	15	13	38	303
Other DTIs	10	7	1	14	6	n.a	35	8	22	103
Total	54	74	31	258	55	79	93	52	199	895

Sources: National Central Banks for Caribbean countries, World Council of Credit Unions.

[2] Ogawa, Sumiko, Joonkya Park, Diva Singh, and Nita Thacker (2013), "Financial Interconnectedness and Financial Sector Reforms in the Caribbean" IMF Working Paper 13/175 estimated that at end-2011 insurance sector assets represented 12% of GDP.

[3] International Monetary Fund (2014), Suriname Article IV Consultation Staff Report estimated that insurance sector was 8.6% of GDP in 2012.

[4] Includes Securities Firms.

There are certain discernible variations particularly in relation to financial depth among CARICOM economies. Based on the available data, the financial sectors of Barbados (223 %), the ECCU (191%), The Bahamas (137%) and Jamaica (131%) constitute the largest financial sectors in relation to their national GDP. However, the Trinidad and Tobago and the Jamaican financial sectors are perhaps the most diversified in terms of the range of institutions and sophistication of instruments available to the public. For example, Jamaica has a significant broker-dealer industry which is dominated by deposit-taking institutions and predominantly engaged in taking short-term funding and investing in long-term government securities.

Table 3.2 indicates the location of financial intermediaries in the CARICOM region. As evidenced by the data, the number of institutions does not necessarily correlate with the size of the economy and it should be noted that within the ECCU sub-region, the number of financial institutions appears inflated because the same institution may be operating in each of the eight islands. For example, Bourne (2014)[5] notes that of 161 registrants in the insurance sector in the ECCU sub-region, there were 61 companies offering services to the public. Neither can it be said that greater numerical strength translates into greater sectoral competitiveness, as the financial sector across the region is generally marked by a high degree of concentration.

The banking structure within the CARICOM area is dominated by private banking institutions and features a mix of foreign and indigenous institutions. The extent of indigenous banks varies from none in Barbados to a significant incidence in the ECCU, Suriname and Haiti. The foreign banks are mainly Canadian and operate across the region in most regional jurisdictions. Polius (2012)[6] estimated that the three large Canadian banks accounted for approximately 61 per cent of regional banking assets. Traditionally, these banks have operated as branches of their parent banks but, in recent years, there has been an emerging trend of establishing regional holding companies to oversee their regional operations. These new groups also operate in other non-CARICOM countries such as the Cayman Islands, Aruba, Turks and Caicos and Curacao. Two indigenous banks, headquartered in Trinidad and Tobago, also boast a significant regional presence, emphasising the interconnectedness of the regional banking system. However, most of the indigenous banks continue to operate only in their national jurisdictions. In addition, within the ECCU sub-region,

[5] Compton Bourne (2014), "Consolidation of the ECCU Financial Sector' in Caribbean Centre for Money and Finance Newsletter Vol 7 No 1.

[6] Tracy Polius (2012) "Systemic Risk in the Context of a Financially Integrating Caribbean: A Rudimentary Analysis" in Caribbean Centre for Money and Finance Newsletter: Vol 5 No 3.

some indigenous banks have cross-shareholdings and governments and national insurance schemes are also shareholders.

Box 3.1: PRIVATE PENSION FUNDS SECTOR IN THE CARIBBEAN

Current data on the private pensions fund sector is limited but it is evident that pension schemes are of growing importance within the CARICOM region. The size of financial assets that are managed by the sector and the large number of persons that potentially can be impacted by the failure of the sector have led to increased legislative and regulatory focus in recent years. Evidence of the growth of the sector is reflected in ratios of pension assets to GDP of 22.2 per cent and 21.4 per cent in 2014 in Jamaica and Trinidad and Tobago, respectively. However, in Guyana they accounted for only 7.4 per cent of GDP in 2013. This disparity is not uncommon within economic groupings. In 2013, within the OECD, Korea, Mexico and New Zealand recorded ratios of 6.5 per cent, 2 per cent and 8.9 per cent, respectively while the United States achieved a pensions asset ratio of 83 per cent.

Pension fund liabilities are traditionally long term and predictable and so can be rationally matched with relatively high-yielding long-term assets. However, increasing longevity (particularly relevant for annuities and defined benefit schemes) and declining interest rates on securities, could impair the future funding capacity of pension plans. In its 2014 Financial Stability Report, the Central Bank of Trinidad and Tobago noted a decline in the average funding ratio for the triennium 2011-2013 to 122 per cent from 135 in the previous triennium. This partly reflects the low interest rate environment. However, the Bank of Guyana has reported an uptick in its ratio to 137 per cent in 2013 from 124 per cent a year earlier.

The principal investment instruments are sovereign debt[1], real estate, mutual funds, and domestic and foreign equities. It is evident that diversified portfolios would enable the sector to better manage its credit risks encountered by the sector. Given the need to be prudent, cautious and risk sensitive with respect to retirement funds, some Caribbean authorities have regulations in place relating to the distribution of the asset portfolio. For example, between 50 and 70 per cent of the asset portfolio must be in fixed income securities so as to reduce price related risk; and between 80 and 100 per cent must be in locally issued securities so that local assets could fairly match local liabilities. Such restrictions together with exchange controls, where they exist, create an incentive to develop the local capital market.

Notes:
1: In 2014, Jamaica pension funds held over 40% of assets in sovereign debt.

In the case of insurance, the limited data suggest that the largest sectors by assets are in The Bahamas, Barbados, Jamaica and Trinidad and Tobago and that there is some correlation with the presence of private pension plans, an overview of which is provided in Box 3.1. Regional

conglomerates in insurance dominate the sector, with SAGICOR, headquartered in Barbados, and Guardian Life, headquartered in Trinidad and Tobago, possessing large insurance networks that also operate outside the region.

3.3 FINANCIAL INFRASTRUCTURE

The financial sector infrastructure within the region has marked differences. All central banks are responsible for the regulation of commercial banks, but regulation of non-banks is subject to varied structures. Increasingly, credit union regulation is transitioning to the central banks but this practice is not universal. To date, central banks have responsibility for credit unions in The Bahamas, Belize, Haiti and Suriname while consideration is being given to do so in Guyana, Jamaica and Trinidad and Tobago. Insurance regulation is already conducted under the aegis of the central bank in Guyana, Trinidad and Tobago and Suriname while in Jamaica and Barbados this responsibility falls to a consolidated non-bank regulator. This shift towards broadening the remit of the central banks or to the creation of consolidated regulators for the non-banking sector represents a deliberate effort to ensure that the quality of regulation of non-banks is brought in line with banking regulation.

Table 3.3: Financial Sector Infrastructure of CARICOM

	Deposit Insurance	Credit Bureau	RTGS	Central Securities Depository	Stock Exchange
Bahamas	✓	-	✓	-	✓
Barbados	✓	-	✓	✓	✓
Belize	-	-	-	-	-
ECCU	-	-	-	✓	✓
Guyana	-	✓	-	-	✓
Haiti		✓	-	-	-
Jamaica	✓	✓	✓	✓	✓
Suriname	-	-	✓	-	✓
Trinidad & Tobago	✓	✓	✓	✓	✓

Sources: National Central Banks for Caribbean countries, Stock Exchanges.

As evidenced by Table 3. 3, the safety net for depositors in the banking system exists only in four jurisdictions at present, but there are plans to extend the net elsewhere. In addition, some jurisdictions are considering extending depositor protection to credit unions. Credit bureaus are still in an embryonic stage, as countries seek to enhance their ability to better manage credit risk. Bureaus currently exist in four countries but several other jurisdictions have expressed an interest in establishing these entities.

The need for modern payments systems to improve efficiency and reduce risk in the payments process has also been recognized but there is not yet global use of real time gross settlement systems (RTGS). This partly reflects the concern that the volumes of transactions may be insufficient to support such enhancements in the payment systems. In addition, while most territories now possess small stock exchanges, not all have established centralized securities depository systems to facilitate the transfer of securities.

3.4 FINANCIAL MARKETS

Caribbean financial markets are shallow with an emphasis on the credit market.[7] Apart from credit, the principal markets for activity are the equity, the bond and the foreign exchange markets, each of which is a potential source of instability.

3.4.1 Equity Market

Not all the Caribbean countries have fully-fledged stock markets as Caribbean firms continue to rely on bank loans and, in some jurisdictions, on corporate bonds to finance their activities. The principal stock exchanges are in Barbados, the ECCU, Jamaica and Trinidad and Tobago but the listings in each of these jurisdictions are relatively small[8]. Despite the ownership patterns of the major institutions and the small number of significant financial institutions in each jurisdiction, financial sector listings are prominent in some markets. Other stock exchanges also exist in The Bahamas, Guyana and Suriname but these operate as independent entities in contrast to the larger stock exchanges where some cross-border listings are prevalent as a means of encouraging enhanced resource allocation efficiency across the Region.

Table 3.4: Stock Price Indices (% Change), 2010-2014

Year	Barbados	ECCU	Jamaica	Trinidad and Tobago
2010	-5.17	7.7	2.3	9.2
2011	7.0	4.1	11.8	21.2
2012	1.1	7.8	-3.4	5.1
2013	1.4	-6.7	-12.5	11.4
2014	-17.5	-3.4	-5.3	-2.9

Sources: Barbados Stock Exchange; Eastern Caribbean Securities Exchange; Jamaica Stock Exchange; Trinidad & Tobago Stock Exchange.

Table 3.5: Selected Financial Sector Stock Prices in Currency of Country of Origin, 2008-2014

	BDS$	*BDS$*	*BDS$*	*TT$*	*TT$*	*J$*
Year	FCIB	Sagicor	ICBL	Republic	Guardian	NCBJ
2008	3.3	3.5	4.1	86.0	18.0	18.0
2009	2.8	3.5	3.0	74.0	14.1	16.0
2010	3.0	2.9	3.1	76.2	12.8	19.3
2011	2.9	2.9	2.5	96.4	14.5	28.1
2012	3.1	2.2	2.6	105.5	18.5	23.9
2013	3.0	2.2	2.6	115.8	14.0	16.4
2014	1.8	1.8	2.4	119.7	13.3	18.5

Sources: Barbados Stock Exchange; Eastern Caribbean Securities Exchange; Jamaica Stock Exchange; Trinidad & Tobago Stock Exchange.

In 2014, the stock exchange indices in Barbados, the ECCU, Jamaica and Trinidad and Tobago all declined (Table 3.4). Only the Trinidad and Tobago market had grown in each of the previous four years, while the indices in Jamaica and the ECCU also fell in 2013. Financial sector stocks have not done well since the global

[7] Discussion on regional credit markets can be found in Chapter 5.

[8] For example, the equity listings for 2014 were Jamaica, 55; Trinidad and Tobago, 28; Barbados, 17 and ECCU, 13.

financial crisis. A sample of financial sector stocks shows that in Barbados stocks declined by 42 per cent to 49 per cent from 2008-14. In contrast, however, Republic Bank rose 39 per cent on the Trinidad and Tobago market over the same period (See Table 3.5). It is of note that two of the financial sector stocks were cross listed on the Barbados and Trinidad and Tobago exchanges. While correlations of price changes were high for Barbados – Trinidad and Jamaica – Trinidad cross listed stocks, substantial opportunity for price arbitrage remained for investors. This observation is consistent with the findings of Howard and Craigwell (2010)[9] who, in a study based on daily data for market returns for the cross-listed securities on the stock exchanges of Barbados, Jamaica and Trinidad and Tobago found that, while the markets are becoming increasingly integrated, the convergence of the returns of the cross-listed securities is debatable, indicating some degree of information asymmetry.

Table 3.6: Market Capitalization and Stock Turnover Ratio, 2010-2014

	Market Capitalization (% of GDP)[10]				Turnover Ratio (%)			
	Barbados	ECSE	Jamaica	Trinidad and Tobago	Barbados	ECSE	Jamaica	Trinidad and Tobago
2010	118.7	75.6	48.1	58.0	0.7	0.11	3.1	1.1
2011	126.2	73.1	48.9	60.4	2.2	0.13	3.4	1.1
2012	131.6	76.8	44.7	61.6	1.7	0.01	3.1	0.8
2013	121.2	75.0	34.6	64.9	0.8	0.01	3.7	1.0
2014	94.4	n.a.	19.0	61.2	0.3	n.a.	6.3	1.0

Sources: Barbados Stock Exchange; Eastern Caribbean Securities Exchange Annual Report; Bank of Jamaica, Financial Stability Reports; Central Bank of Trinidad and Tobago, Annual Economic Surveys.

Activity on the exchanges as measured by new issuance has been low. In Jamaica, seven[11] new issues were raised in calendar year 2014, compared to 14 the previous year but in Barbados there were none for the same period. The degree of market capitalization[12] varies among the various countries, with capitalization of 94 per cent in Barbados in 2014 compared to 19 per cent and 61 per cent in Jamaica and Trinidad and Tobago, respectively. The turnover ratios in the region have been habitually low and in 2014, Jamaica's turnover increased from 3.7 per cent to 6.3 per cent while the ratios for Trinidad and Tobago, Barbados were 1.0 per cent and 0.3 per cent, respectively (See Table 3.6).

[9] Howard, Stacia and Roland Craigwell (2010), "Convergence of Caribbean Stock Exchanges" (mimeo).

[10] For this table, ECSE data is for the year ending March.

[11] See Bank of Jamaica (2015), 2014 Financial Stability Report.

[12] Market cap in the ECCU is dominated by one cross-listed stock which accounts for about 78% of market cap.

3.4.2 Bond Market and Money Market

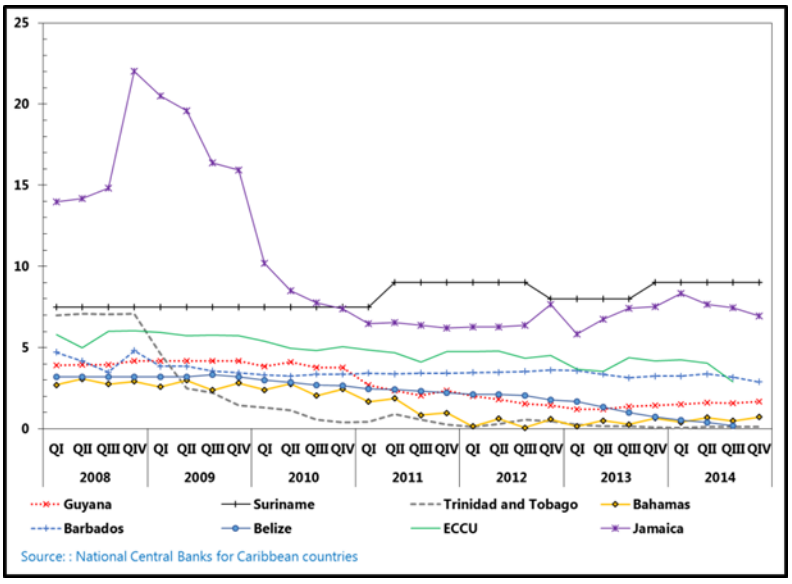
The domestic bond markets in the Caribbean are dominated by Government securities. While data is limited, it is evident that there are very few private sector bond listings in the region. For example, in Trinidad and Tobago, one of the most active capital markets in the region, the private sector, inclusive of two banks and one insurance company, made five bond placements in 2014 while there were none in Barbados.

Table 3.7: Sovereign Debt Ratios of CARICOM Economies (% of GDP), 2012-2014

	Domestic Debt			External Debt			Total Debt		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Bahamas	40.8	45.0	47.1	12.6	14.1	18.7	53.4	59.1	65.8
Barbados	54.3	63.7	66.7	31.4	34.0	34.8	85.4	97.7	101.5
Belize	12.4	11.9	11.1	64.5	67.0	66.3	76.9	78.9	77.3
ECCU	43.2	39.2	37.8	42.7	45.2	44.9	85.9	84.4	82.7
Guyana	16.0	16.1	12.3	47.7	41.8	39.5	63.7	57.8	51.8
Haiti	14.1	12.5	12.2	13.5	17.7	20.6	27.6	30.2	32.8
Jamaica	75.4	74.2	68.4	58.1	59.0	63.0	133.5	133.2	131.4
Suriname	10.7	15.7	12.5	16.4	18.8	21.2	27.1	34.5	33.7
Trinidad & Tobago	18.3	16.0	16.8	6.6	8.3	8.1	24.9	24.3	24.9

Source: National Central Banks for Caribbean countries.

Figure 3.1: Treasury Bill Rates (%)



In contrast, activity in government securities is significant, especially in primary issuance as there is limited secondary activity in most jurisdictions. Domestic sovereign indebtedness varies across the region with Belize, Guyana, Haiti and Trinidad and Tobago recording domestic ratios below 20 per cent of GDP while the ECCU, The Bahamas, Barbados and Jamaica had ratios at end 2014 of 37.8 per cent, 47.1 per cent, 66.7 per cent and 68.4 per cent, respectively. However, the lack of a strong secondary market for government securities and related low turnover in most of the Caribbean countries suggest a situation of low price volatility.

As evidenced by Table 3.7, some jurisdictions' combined debt ratios have risen to uncomfortable levels, with Barbados, Jamaica and some ECCU territories exceeding 100 per cent of GDP. Debt ratios do not necessarily align with domestic treasury bill rates which vary considerably in the

region, with the highest rates traditionally in Jamaica. Suriname, which issues only six-month bills, also has exhibited very high rates (See Figure 3.1). However, rising sovereign debt levels have impacted sovereign credit ratings and have induced a number of Caribbean countries, including Antigua and Barbuda, Belize, Grenada, Jamaica and St. Kitts and Nevis to pursue debt restructuring in recent years.

The financial sector, through banks, insurance companies and pension funds, is a significant player in the domestic bond market. In addition, there is an intra-regional bias on the part of these institutions in regard to holding sovereign bonds. Debt restructuring by regional sovereigns therefore poses heightened credit and sovereign risk, with potential consequential impact on financial stability both in domestic markets and where financial institutions are exposed to holding their debt.

Chapter 4: PERFORMANCE OF FINANCIAL INSTUTIONS

4.1 OVERVIEW

Given the importance of commercial banks[13] and insurance companies to financial stability in the Caribbean, the analysis in this chapter is focused on their performance from an aggregated microprudential perspective. The small number of players in each market limits competition in some segments of the market. At the same time, high demonstrated levels of risk aversion, particularly in the banking sector, has contributed traditionally to favourable outcomes of financial stability indicators.

The financial system, as measured by the IMF's core financial soundness indicators (FSIs), has generally performed well in the post-2008 period, despite the concerns caused by the collapse of the affiliated CLICO and BAICO insurance companies[14]. The FSIs, as seen in Appendix and Tables 4.1 and 4.3, depict:

i. Significant variations across the region for both banks and insurance companies;
ii. Capital adequacy ratios that are considerably higher than those in the selected developing countries and the selected emerging economies, when compared with data in Appendix Tables 6 and 7 for selected developing countries and emerging economies;
iii. Rates of return that were invariably below average when compared with certain selected countries out of the group of developing and emerging economies for which 2013 data are available. Besides the relatively high incidence of non-performing loans, the lower earnings of Caribbean banks were probably related to a lack of economies of scale and limited use of cost-saving electronic banking (as against numerous branch offices);
iv. Comparable liquidity ratios when compared with developing and emerging economies, and;
v. Improving indicators for the insurance sector.

[13] Prudential data on Credit Unions is limited (See Box 4.1).

[14] See Box 4.2.

Box 4.1: CREDIT UNIONS AND FINANCIAL STABILITY

Credit Unions, with assets equivalent to almost seven per cent of regional GDP, have become important institutions in CARICOM countries. Credit union membership, as a percentage of the economically active total population, is quite high, with the penetration ratio in 2014 above 50 per cent in most countries. Notable exceptions were The Bahamas, Guyana, Haiti and Suriname but the average penetration ratio for the Caribbean was well above the global penetration ratios[1] of 8.2 per cent. While membership has grown, there has been consolidation of the sector in some jurisdictions. This trend has resulted in the closure of entities that were not financially viable. At the same time, it is reflected in heavy concentration in some jurisdictions. For example, in Barbados, four of the 35 credit unions account for more than 85 per cent of the total assets, membership, loans and deposits.

Loans, principally for consumers, real estate and mortgages, dominate credit union balance sheets. At end 2014, loans as a percentage of total assets were estimated at 76 per cent for the region. As with the banking sector there has been deterioration in asset quality post the global financial crisis, but data gaps prevent a comprehensive analysis of the scale of the decline. In Barbados, where NPLs have trended upwards, the return on assets has been very low but in The Bahamas and Belize the return on assets has risen during this period. Capital adequacy as measured by capital to assets ratio exceeded 10 per cent for the three countries for which data was available.

A key challenge facing the sector as it seeks to contribute to financial stability has been the desire to engage in portfolio diversification. Some credit unions were impacted by their investments in instruments issued by CLICO and BAICO while the collapse of the very large Hindu Credit Union in Trinidad and Tobago in 2008 was deemed to be mainly as a result of branching out into a large variety of businesses. As a result, the Government of Trinidad and Tobago has drafted legislation designed to limit non-core activities as travel agency services, resorts, gym facilities, day-care services, retail outlets and real estate development. Under the legislation, such services would be limited to five per cent of assets and ten per cent of revenues.

Source: CCMF Newsletter, May 2014.
N*otes: 1: World Council of Credit Unions 2014 Statistical Report*

Box 4.2: THE CLICO ISSUE

The operations of the CL Financial Group, a mixed group conglomerate that was headquartered in Trinidad and Tobago, spanned 32 jurisdictions including all of the CARICOM countries except Haiti and Jamaica. Its activities included insurance, banking[1] and other financial services, with Colonial Insurance Company (CLICO) and British American Insurance Company (BAICO) providing the major financial services footprint within the Region. By 2007, group assets represented approximately 30 per cent of regional GDP[2].

In January 2009, two of its financial subsidiaries in Trinidad and Tobago, CLICO Investment Bank and CLICO (Trinidad) Ltd, an insurance company, encountered liquidity problems and were intervened by the Central Bank of Trinidad and Tobago. The ripple effect across the Region was immediate and significant, with each jurisdiction eventually placing the local operation under judicial management. The scale of the problem varied, with the risk exposure in Trinidad and Tobago estimated at 10 per cent of GDP while in the ECCU the exposure was estimated to be 17 per cent of GDP[3].

Resolution of the problem has been protracted and on-going, especially where the size of the exposure has been large and fiscal space for the impacted governments limited. Sale of some businesses, public sector guarantees and the reimbursement of investments in some jurisdictions have been some of the strategies adopted so far. In some markets, the guarantees are intended to complement efforts to establish new companies to take over the good assets of CLICO and facilitate the long term sale of illiquid assets.

At the micro level, the impact of the downfall of the group was felt across "… depositors, investors and policyholders, including individuals, corporate and public pension schemes, and financial institutions."[4] It served to highlight the degree of interconnectedness and the risks such interconnectedness poses within regional financial systems as several financial institutions held instruments sold by the CL Financial subsidiaries. In addition, apart from the uncertainty and reduced access to benefits and investments, it raised concerns about the quality of collateral which other financial institutions may have been holding.

Notes:

Among its assets were 55% of the shares of Republic Bank, Trinidad and Tobago's largest bank.

[2] Ogawa, Sumiko, Joonkya Park, Diva Singh, and Nita Thacker (2013), "Financial Interconnectedness and Financial Sector Reforms in the Caribbean" IMF Working Paper 13/175

[3] International Monetary Fund (2011), IMF Country Report No. 11/174: Trinidad and Tobago Selected Issues.

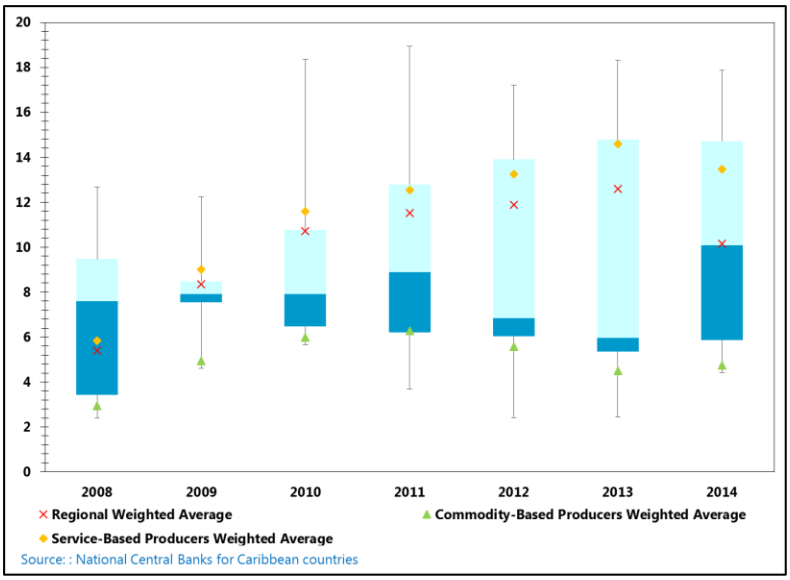
[4] Ibid.

4.2 COMMERCIAL BANKING SECTOR

4.2.1 Asset Quality

Non-performing loans rose significantly in the aftermath of the global financial crisis as the slowdown in economic activity, particularly in service-based economies, weakened corporate performance and the capacity of private individuals to service domestic debts, including mortgages[15] (Figure 4.1). Non-performing loans were already above five per cent in most markets in 2008, except in Barbados, Jamaica and Trinidad and Tobago and, by 2011, had risen sharply, with Barbados, The Bahamas, the ECCU and Belize all recording double digit ratios. The ratios also more than trebled in Jamaica and Trinidad and Tobago by 2011, but stayed below 10 per cent. In Suriname, non-performing loan ratios stabilised while Haiti reported a declining ratio of only 3.7 per cent.

Figure 4.1: FSI for Banking (Asset Quality) - Non-Performing Loans Ratio (%)



Since 2011, asset quality across the region has performed unevenly and by end 2014 the regional weighted average was 10.3 per cent, down from 12.6 per cent a year earlier. Non-performing loan ratios in The Bahamas, the largest market in the region, and the ECCU have driven the deterioration. In Barbados, the ratio remained above 10 per cent but has shown evidence of stabilizing while Belize reported modest reductions from the peaks of over 18 per cent in 2010-11. In Guyana, the gains of 2010-2013 were reversed in 2014, but Jamaica's ratios returned to 2009 levels.

The variations in the incidence of non-performing loans among the countries are probably attributable in part to differences in the sectoral distribution of loans and perceived credit risk within individual economies. For example, the regional average for services-based economies in

[15] See Box 4.3.

2014 was 13.5 per cent whereas in commodity-based economies the ratio fell below five per cent. However, despite the significant non-performing loans differences among the countries, the various stress tests performed seemed to generally indicate a certain degree of resilience for the financial system[16].

Box 4.3: REAL ESTATE DEVELOPMENTS

The regional financial system needs to guard against any potential real estate bubble. Banks, credit unions and insurance companies have significant exposures through real estate arising from lending for mortgages and using real estate as security for loans, including for commercial loans. In buoyant markets the value of real estate can rise quickly but during protracted downturns there is a risk that property values will be adversely impacted especially where the supply of property for resale exceeds the demand. A sharp fall in property prices where the value of the property falls below the value of the loan could create incentives for borrowers to walk away, thus creating further downward pressure on the market. To better track real estate prices, regional jurisdictions will need to focus on the development of real estate price indices. Preliminary work has started in Jamaica and Trinidad and Tobago but this needs to be extended to other jurisdictions, including the service-based economies whose prices have been influenced by foreign direct investment.

The high incidence of non-performing loans asset may partially reflect the historical absence of credit bureaus to provide the sort of information to creditors that would prevent delinquents with a bad repayment record in one financial institution from accessing a loan in another institution. Asset quality reviews are therefore receiving the attention of the Caribbean authorities. The demand for asset reviews also reflects a recognition that the methods employed by lending institutions in determining whether the repayment history of a loan is such as to warrant it being described as sub-standard, in distress, or in default may not be similar across the industry.

4.2.2 Earnings and Profitability

In good times Caribbean banks perform well in terms of profitability due in large measure to high interest rate spreads. Wide variations exist for regional interest rate spreads which have traditionally been attributed to high administrative costs, growing levels of excess liquidity and

[16] An overview of financial sector resilience is provided in Chapter 5.

investment in low-yielding government securities.[17] For example, at December 2014, the average spread in Haiti was 16.1 per cent compared to four per cent in Suriname and 5.9 per cent in Barbados. Since 2008, there has been no convergence of these spreads in terms of direction or levels and during 2014, spreads in six jurisdictions narrowed.

However, weak credit growth and the general deterioration in non-performing loans, with an attendant increase in provisioning, have had an adverse impact on the profitability of banks across the region. The weighted average return on assets fell to 0.27 per cent in 2014 from 2.7 per cent in 2008, with the ROA declining everywhere except Guyana. In 2014, four countries continued to achieve returns in excess of two per cent, but losses[18] in the Bahamian sector reduced substantially the weighted average. The average rate of return on equity for commercial banks in the Caribbean mirrored the performance of the ROA, with the ROE declining from 17.2 per cent in 2008 to five per cent in 2014. There was a very wide range of national outturns as the ROE remained above 20 per cent in the case of Guyana and Suriname. The adverse effect on the average profitability of commercial banks in the Caribbean that was precipitated by the global financial and economic crisis is depicted in Figures 4.2 and 4.3.

Figure 4.2: FSI for Banking (Earnings and Profitability)-Return on Assets (%)

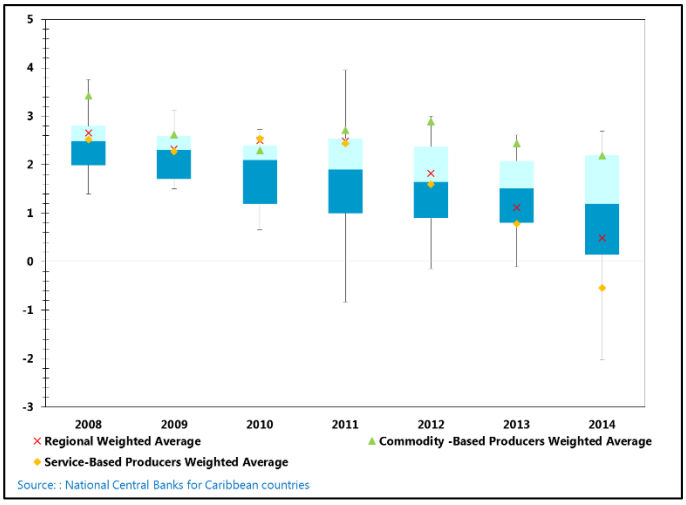
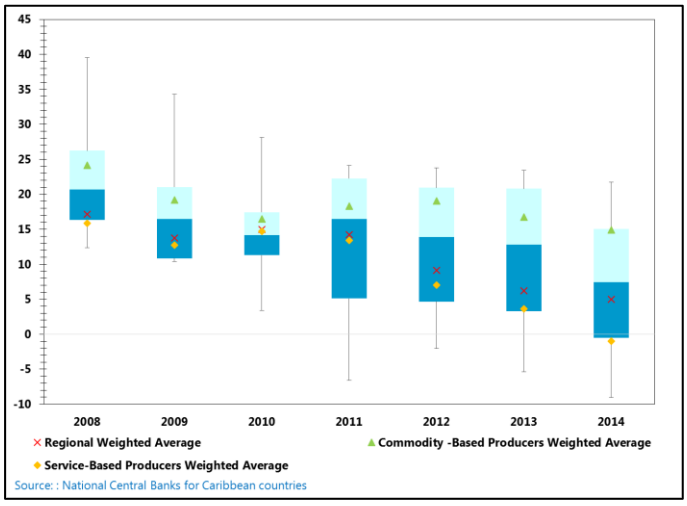


Figure 4.3: FSI for Banking (Earnings and Profitability) - Return on Equity (%)



[17] See Ganga G and G Ramdas (2012), Macro-Prudential Surveillance of the Guyana Financial System. Paper presented at the 44th Annual Monetary Studies Conference Suriname, 7-9 November 2012.

[18] The ECCU and Belize also realized small losses in 2011-13.

4.2.3 Bank Capital Adequacy

Commercial banks in the CARICOM area carry capital adequacy ratios well above the Basle I's eight per cent standard. It should be noted that while the region has not yet migrated to Basel 11/111, the main risk faced by banks is credit risk and the capital structure of banks does not have the complexity of banks in more advanced economies. While banks might be expected to keep a level of capital reserve that is not much above the recommended ratio to assets, banks in the region recorded high ratios even before economic activity was adversely impacted by the global crisis. For example, in 2008 the lowest ratios were 10.1 per cent and 12.7 per cent in Suriname and Haiti, respectively but the average of regulatory capital to risk weighted assets was 21.7 per cent. With weak loan demand and increased conservatism by banks since then, the average rose to 23.7 per cent in 2014, on the back of an exceptional 30.2 per cent ratio in The Bahamas. Indeed, there has been considerable variation among the countries, ranging from over 24 per cent in the case of The Bahamas, Belize and Trinidad and Tobago to just over 11 per cent in the ECCU and Suriname where the incidence of state banks and indigenous private banks is more common. The distribution of capital adequacy ratios is depicted in Figures 4.4 to 4.5.

Figure 4.4: FSI for Banking (Capital Adequacy) - Regulatory Capital to Risk Weighted Assets (%)

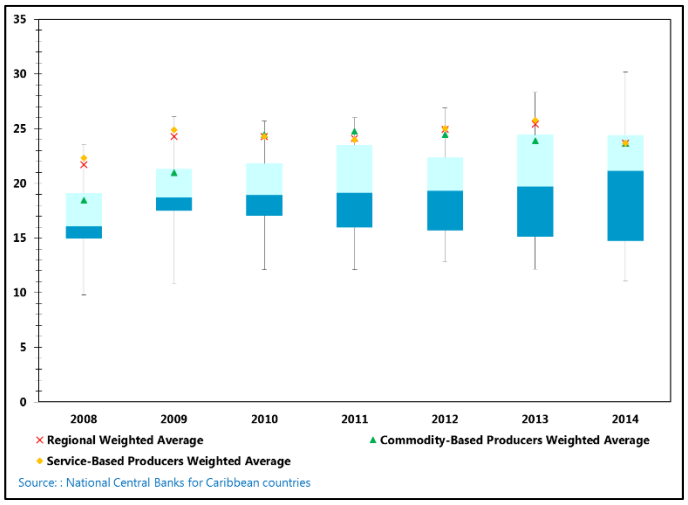
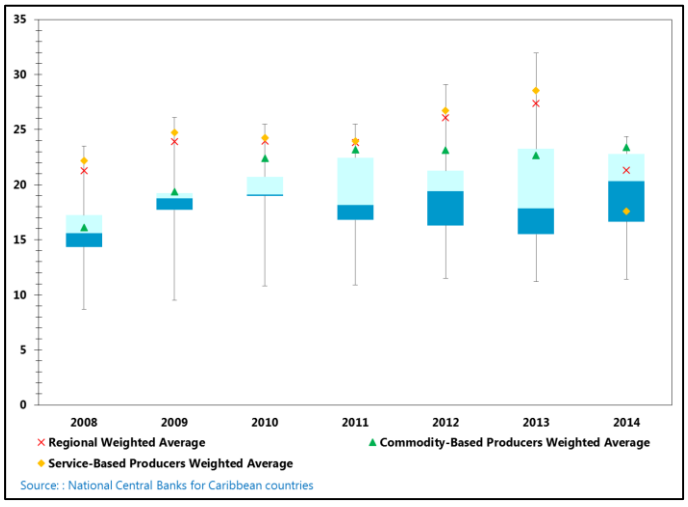


Figure 4.5: FSI for Banking (Capital Adequacy) - Regulatory Tier 1 Capital to Risk Weighted Assets (%)



4.2.4 Bank Liquidity

Adequate levels of liquidity are very important for the managing of the portfolio of commercial banks. Such adequacy is dependent on a number of factors, including the share of deposits to total

funding, the withdrawal stipulations for such deposits (chequing, savings, certificates of deposit) and the wider ownership distribution of such deposits. Funding for domestic banks is principally based on deposits and this tends to be high relative to what obtains in developed countries.

The higher the loans to deposits ratio the greater the risk, although buoyancy of credit enhances economic growth. The loans to deposits ratio in the Caribbean tends to be relatively low, owing partly to the commercial banks penchant for holding risk-free short-term government paper (treasury bills). With the onset of the global financial and economic crisis and the plummeting of business confidence, the demand and supply of loans tended to decline in most of the jurisdictions, especially those experiencing a significant increase of non-performing loans.

The liquid assets to total assets ratio in the Caribbean has risen since 2008 when it averaged 15.3 per cent to 25.6 per cent by 2014. Only two countries recorded ratios below the average in 2014. With respect to the liquid assets to short term liabilities liquidity measure, the ratio trended up everywhere and by 2014 averaged 35.9 per cent Figures 4.6 and 4.7 reflect the increase of liquidity in recent years in the Caribbean.

Figure 4.6: FSI for Banking (Liquidity) - Liquid Assets to Total Assets (%)

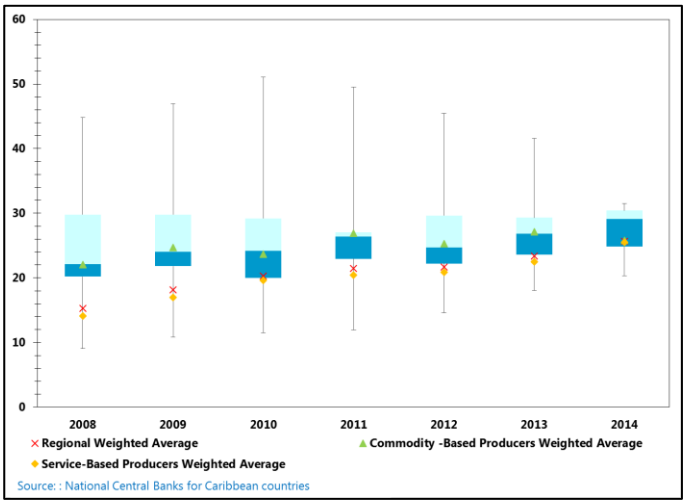
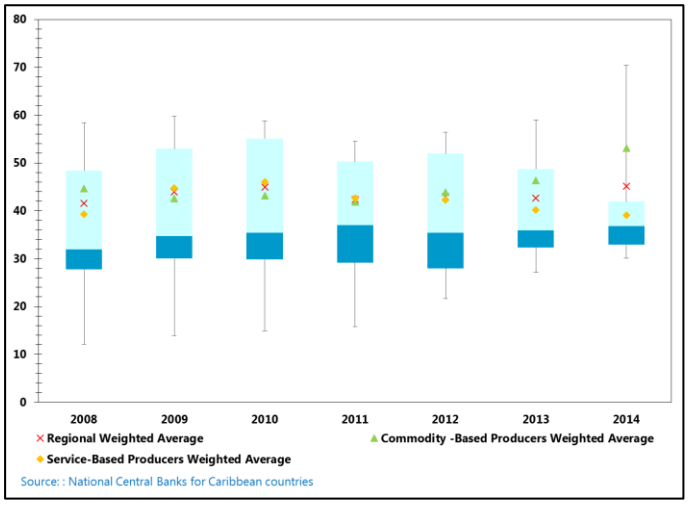


Figure 4.7: FSI for Banking (Liquidity) - Liquid Assets to Short -Term Liabilities (%)



4.3 INSURANCE SECTOR

Data for the insurance sector does not permit a comprehensive analysis for all jurisdictions. However, there has been a significant expansion in the insurance sector as some insurers increased their marketing efforts into new product lines, namely annuities and others sought geographical

diversification as far away as the UK and comparatively less hurricane-prone areas of the Caribbean, particularly after the 2004-2005 hurricanes affected so many countries.

Based on limited data, the industry is dominated by the life insurance sector which accounts for approximately 80 per cent of assets in the three largest markets of The Bahamas[19], Jamaica and Trinidad and Tobago. During 2014, the sector continued to grow in most markets, with the penetration ratio as measured by the ratio of premiums to GDP reaching 5.4 per cent for The Bahamas[20], Barbados, Jamaica and Trinidad and Tobago, which together account for approximately 69 per cent of regional GDP. However, there were significant variations within the group, with ratios ranging from 4.2 per cent to 8.9 per cent.

While the penetration is still relatively low, the size of some regional firms, their concentration in specific markets and their cross-border activities create the potential for an adverse impact on financial stability as a result of macroeconomic developments, external factors or internal group risk challenges. Failure of a significant general insurance player or the loss of wealth arising from the demise of a large life insurance firm can disrupt the functioning of and confidence in the economy. This is increasingly of concern where the insurance sector has strong linkages with other segments of the real or financial sector.

4.3.1 Life Insurance

The life insurance sector, by the very nature of its long term liabilities, allows for matching long term assets, and tends not to be susceptible to an unexpected catastrophic event and related problems of liquidity. However, of concern in recent times have been the aggressive sales of annuity products in some markets[21] and, following the global financial crisis, a general decline in interest rates, domestic and foreign. The fall in interest rates had a significant impact on the annuities' book of business due to re-investment risk and caused guarantees that were extended by insurers on unit-linked and universal life products, without proper hedges, to come into the money. Though insurers with unit-linked and universal life products were able to absorb this shock, they had to implement changes to their product offerings to mitigate the continuing risk.

[19] For The Bahamas, 2013 data is used.

[20] For The Bahamas, 2013 data is used.

[21] See Central Bank of Trinidad and Tobago Financial Stability Report 2014.

Given the duration mismatch between their short-term assets and long-term liabilities, insurers hold government securities as the most popular form of investment for statutory funds as there is a dearth of alternative assets with a 20- to 30-year duration. For example, almost 60 per cent of assets in Jamaica were in government securities while it was almost 50 per cent in Trinidad and Tobago.

Notwithstanding the uncertainty created by the CLICO/BAICO collapse, the declining interest rate environment in some markets and the implementation of debt restructuring as countries grappled with macroeconomic imbalances, the regional life insurance sector as measured by financial stability indicators is relatively strong.

Based on the data in Table 4.1, it can be noted that:

i. Investment yields have been on a general downward trend since 2008;
ii. Profitability as measured by the return on equity has declined, a notable exception being Suriname, the performance of whose sector has improved significantly since 2009.
iii. Despite the lower investment yields and the lower returns on equity, capital[22] as measured by capital/assets ratio has trended upwards and all jurisdictions are reporting strong levels of capital by this measure.
iv. There is significant variation in terms of short term liquidity across jurisdictions.
v. Most jurisdiction have moderate levels of illiquid assets, notable exceptions being Guyana and Jamaica.

[22] Jamaica has implemented the Minimum Continuing Capital and Surplus Requirements (MCCSR) ratio as its means of assessing capital and other jurisdictions are in the process of adopting this standard.

Table 4.1: Selected Financial Soundness Indicators- Life Insurance

	2008	2009	2010	2011	2012	2013	2014
Capital/Total Assets (%)							
Bahamas	22.4	24.0	25.0	26.2	26.2	28.2	n.a.
Barbados	n.a.	n.a.	n.a.	n.a.	30.4	28.4	19.3
Belize	33.5	40.7	40.9	39.6	37.9	35.4	29.5
ECCU	2.1	3.9	16.5	25.2	30.1	14.4	n.a.
Guyana	28.8	29.1	33.0	31.4	36.0	38.7	25.4
Jamaica	23.8	26.0	30.1	27.4	26.8	25.8	22.3
Suriname	-42.9	-33.3	9.0	10.0	11.1	11.3	n.a.
Trinidad & Tobago	25.1	25.4	23.8	22.1	22.0	21.2	21.3
Real Estate & Unquoted Equities of Debtors/Total Assets (%)							
Bahamas	15.0	23.2	19.3	16.4	16.3	14.7	n.a.
Belize	6.9	5.8	6.5	4.9	4.1	4.7	4.6
ECCU	n.a.	n.a.	n.a.	10.7	8.9	8.4	n.a.
Guyana	44.8	43.6	46.7	53.6	50.8	53.5	n.a.
Jamaica	78.2	77.8	79.2	79.4	78.5	78.1	83.0
Suriname	13.8	15.3	16.7	16.9	19.3	17.7	n.a.
Trinidad & Tobago	16.5	15.7	15.1	13.5	9.3	10.5	7.4
Return on Equity (%)							
Bahamas	22.4	24.0	14.5	10.9	12.5	12.4	n.a.
Barbados	n.a.	n.a.	n.a.	n.a.	n.a.	22.0	33.0
Belize	26.9	31.1	23.2	19.4	6.7	16.4	20.4
Guyana	7.1	8.2	6.2	6.1	7.0	4.4	n.a.
Jamaica	26.1	31.2	23.3	22.6	20.0	35.2	21.2
Suriname	120.9	-8.9	18.8	29.6	21.3	17.5	n.a.
Trinidad & Tobago	7.6	10.9	14.6	10.3	14.1	15.1	10.5
Investment Yield (%)							
Bahamas	10.4	7.0	7.2	4.9	6.7	6.1	n.a.
Belize	7.9	7.4	6.8	6.4	4.7	5.4	6.0
Guyana	10.3	9.3	7.6	6.6	5.4	5.0	n.a.
Jamaica	11.9	15.2	11.7	10.3	9.5	7.6	8.1
Suriname	8.7	7.4	7.5	7.4	8.1	6.2	n.a.
Trinidad & Tobago	6.3	7.2	6.2	5.7	5.4	5.1	4.8
Liquid Assets Ratio (%)							
Belize	115.1	132.9	132.6	53.3	69.1	74.7	94.6
Guyana	224.1	170.6	180.0	158.5	132.7	129.1	n.a.
Suriname	31.8	39.0	52.0	50.2	54.1	57.4	n.a.
Trinidad & Tobago	42.1	38.9	28.8	33.5	33.6	32.6	34.0

Source: National Central Banks for Caribbean countries.

4.3.2 Non-Life Insurance

Non-life insurance is a business that accepts the transference of risk whose probability of occurrence is uncertain. For this reason, reinsurance plays an important part in the business strategy as firms seek to minimise the amount of risk that they absorb. The purchase of reinsurance adds to the stability of the sector by shifting claim payments from the balance sheets of domestic insurance companies to those of reinsurers. Data on the extent of reinsurance ceded in 2014 is limited but as Table 4.2 indicates there is considerable variation[23] and by extension, exposure that general insurance companies face in the region.

Table 4.2: Retention Ratios of Selected CARICOM Countries, 2013-2014

	2012	2013	2014
Bahamas	33.5	34.2	n.a.
Barbados	36.0	43.7	44.8
Belize	39.9	38.6	41.9
Guyana	n.a.	75.7	73.4
Jamaica	57.5	58.6	60.3
Trinidad and Tobago	42.6	42.7	42.3

Source: National Central Banks for Caribbean countries.

The available data in Table 4.3 suggest that the larger economies have recorded lower but generally comfortable returns on equity since the financial crisis. With the returns in the smaller economies rising at the same time, all the markets had strong capital ratios by end 2014.

[23] In Trinidad and Tobago, 93% of premiums for property insurance, which accounts for 50% of the general insurance market, were ceded.

Table 4.3: Selected Financial Soundness Indicators: Non-Life Insurance

	2008	2009	2010	2011	2012	2013	2014
Capital to Assets (%)							
Bahamas	n.a.	n.a.	39.1	37.4	37.3	41.7	n.a.
Barbados	n.a.	n.a.	n.a.	n.a.	n.a.	10.9	11.4
Belize	35.8	36.0	37.5	37.1	39.4	37.4	35.9
ECCU	36.0	34.8	34.0	40.2	42.7	41.3	n.a.
Guyana	71.7	74.7	80.4	51.6	56.4	54.0	54.5
Jamaica	35.0	36.6	29.0	29.4	29.8	28.3	29.8
Suriname	31.6	32.2	35.3	35.0	39.0	36.4	n.a.
Trinidad & Tobago	36.2	40.3	37.9	38.3	40.9	42.8	44.2
Real Estate & Unquoted equities of Debtors/Total Assets (%)							
Bahamas	51.8	44.9	40.6	56.9	58.4	50.8	n.a.
Barbados	n.a.	n.a.	n.a.	n.a.	31.6	31.6	n.a.
Belize	31.6	39.0	42.9	36.8	34.4	30.2	34.8
ECCU	n.a.	n.a.	n.a.	7.5	10.4	11.6	n.a.
Guyana	64.1	57.6	52.3	59.4	55.7	66.8	n.a.
Jamaica	42.9	32.8	35.3	32.3	34.3	35.9	36.3
Suriname	38.8	44.1	42.6	38.5	38.3	43.5	n.a.
Trinidad & Tobago	18.9	17.2	16.9	16.2	14.0	13.3	13.8
Return on Equity (%)							
Bahamas	53.2	39.6	10.9	4.5	6.4	11.3	n.a.
Barbados	n.a.	n.a.	n.a.	n.a.	12.0	9.0	16.0
Belize	25.0	36.0	29.7	41.7	36.5	32.8	40.9
Guyana	6.1	8.1	5.8	6.1	8.3	5.9	n.a.
Jamaica	23.8	18.3	13.8	34.9	21.2	18.9	25.1
Suriname	13.3	15.7	15.2	22.2	23.2	15.6	n.a.
Trinidad & Tobago	25.1	17.0	12.3	15.5	17.7	20.1	14.0
Net Claims to Net Premiums (%)							
Bahamas	34.8	44.7	40.3	37.4	37.8	36.1	n.a.
Barbados	n.a.	n.a.	n.a.	n.a.	57.0	53.7	n.a.
Belize	25.0	36.0	29.7	41.7	30.5	32.8	40.9
Guyana	31.3	28.9	35.7	32.6	33.3	40.7	n.a.
Jamaica	60.9	75.0	65.2	55.0	56.1	60.2	56.4
Suriname	59.3	62.0	58.0	58.2	54.4	60.6	n.a.
Trinidad & Tobago	53.9	52.1	51.5	50.3	47.6	45.3	44.3

Source: National Central Banks for Caribbean countries.

Chapter 5: ASSESSMENT OF CONTAGION RISK IN THE CARIBBEAN

5.1 OVERVIEW

Financial sectors across the Caribbean are at varying stages of development, interconnected and dominated by cross-border financial conglomerates. On this basis, the potential exists for financial system contagion to spread rapidly across jurisdictions in response to internal and external shocks to one or more Caribbean economies. For 2014, the overall assessment of contagion risk in the Caribbean points to broad-based improvement since the onset of the global crisis. Notably, financial sectors across the region, which are primarily bank-based, have largely managed to build up their capital adequacy and liquidity buffers in the post financial crisis years.

During 2014, macro-prudential policymakers in the region continued to strengthen efforts at detecting emerging system-wide financial vulnerabilities including through cross-border linkages, with the aim of responding early enough so that substantial adverse economic effects are avoided[24]. Despite national macro-prudential frameworks being at varied stages of maturity in the Caribbean, all countries have implemented banking sector stress testing as a key constituent to their macro-prudential assessments. Additionally, five of the nine Caribbean territories have published a national financial stability report, with preparations underway for the remaining countries to publish in the near future. Despite some progress in developing metrics for assessing systemic risk within jurisdictions, domestic financial stability surveillance has not adequately captured regional systemic risks including the potential for cross-border contagion. In this chapter, a set of selected time-varying and cross-sectional systemic risk indicators are monitored to assess the dimensions of systemic risk in the Caribbean.

In the case of time-varying systemic indicators, the credit-to-GDP ratio is used to measure and compare the evolution of national financial cycles. Specifically, excessive leverage in Caribbean banking sectors is proxied by the credit-to-GDP gap, which is defined by the difference between the credit-to-GDP ratio and its equilibrium trend[25]. This gap provides an estimate of excess bank credit

[24] To coordinate financial stability activities at the supranational level, the Regional Financial Stability Coordinating Council was established by CARICOM Central Bank Governors in 2010.

[25] The coverage of Caribbean countries for assessing the time-varying systemic indicators is based on data availability from the national central banks and includes Barbados, Belize, ECCU, Guyana, Jamaica, Suriname and Trinidad and Tobago.

in the system by comparing the rate of growth of credit with that of GDP. A positive gap typically indicates build-up of system-wide risk as credit should generally grow in proportion to GDP.

The evolution of other credit cycle measures for Caribbean countries is also important in regard to their role as potential amplifiers of financial crises. The alternative measures explored in this chapter are the real rates of growth in credit to consumers, businesses and real estate. In particular, in line with significant deviations of credit above equilibrium levels, prolonged periods of rapid growth in these measures could trigger banking crises. On the whole, financial cycles for Caribbean territories, as evidenced by the various measures, appear to exhibit global synchronicity as against reflecting a common regional component.

Examining the dynamics of the sources of credit can be just as important as credit cycle measures in assessing systemic risk. In particular, the loan-to-deposit (LTD) ratio is employed to assess the accumulation of systemic liquidity risk within Caribbean countries. Specifically, a shift in funding reliance on short-term wholesale debt relative to core deposits within a country's banking sector is often associated with liquidity crises.

This chapter provides a broad assessment of regional contagion which would arise when a shock to the financial system located in one or a group of countries within or outside the region spreads to other countries within the region. In particular, these potential contagion channels include direct cross-border links (such as current gross exposures or financial flows through payment systems) or indirect links (such as herd behaviour associated with joint exposure to assets in the same risk class) through which contagion can propagate. Cross-border financial system exposures are monitored in this chapter by means of a regional contagion matrix or interconnectedness map of balance sheet positions for the bank and insurance sectors and using financial network (cluster) analysis to assess the potential contagion channels in the Caribbean[26]. Regional sovereigns are included in the contagion matrix as "trigger nodes", only showing "claims on" connections, whereas banks and insurers show "claims on" and "liabilities to" and "equity held by".

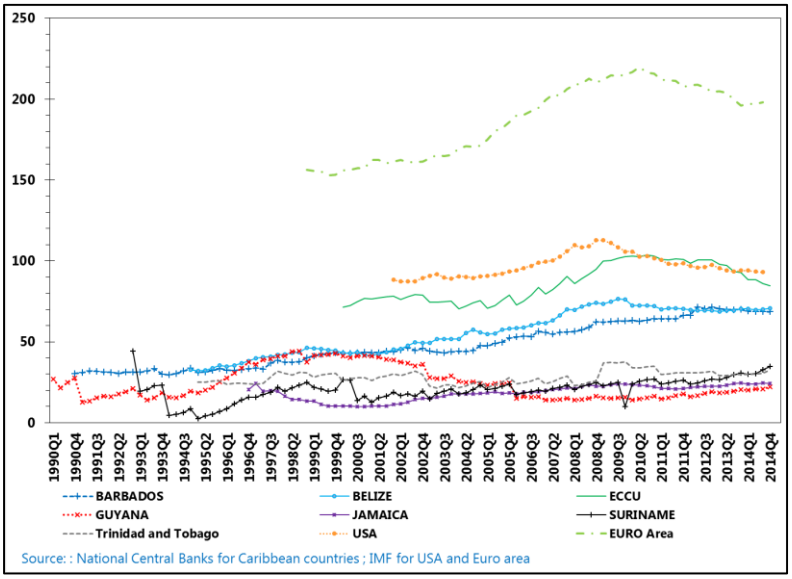
[26] The coverage of Caribbean countries for assessing the cross-sectional systemic indicators includes Barbados, Bahamas, Belize, ECCU, Guyana, Haiti, Jamaica, Suriname and Trinidad and Tobago.

5.2 CREDIT CYCLES AND EXCESSIVE LEVERAGE IN THE CARIBBEAN

5.2.1 Regional Credit-to-GDP Gaps

As indicated, the credit-to-GDP ratio is commonly used as the basis for tracking the evolution of the credit cycle. In this chapter, credit-to-GDP ratios for Caribbean territories are calculated using the ratio of nominal broad credit from the banking sector to nominal GDP[27]. Notably, the evolution of total credit-to-GDP ratios of Barbados, Belize, ECCU, Guyana, Jamaica, Suriname and Trinidad & Tobago depict very different patterns since 1990 to end-2014 (Figure 5.1). Firstly, Barbados, Belize and ECCU display relatively high levels of total credit-to-GDP ratios in comparison with those of Jamaica, Guyana, Suriname and Trinidad and Tobago. Second, growth rates of total credit-to-GDP ratios for Barbados, Belize and ECCU were particularly noticeable in the years leading up to the 2008/2009 global financial crisis and then decelerated for these countries in line with developments in the USA and the UK, but at a slower pace for Barbados and ECCU. In contrast, total credit-to-GDP ratios for Jamaica, Guyana, Suriname and Trinidad and Tobago have remained relatively flat since 1990, outside of a short growth spurt in the ratio for Guyana in mid- to late-90s which reverted to lower levels during early- to mid-2000s.

Figure 5.1: Credit-to-GDP Ratios for CARICOM, USA and Euro Area (%)



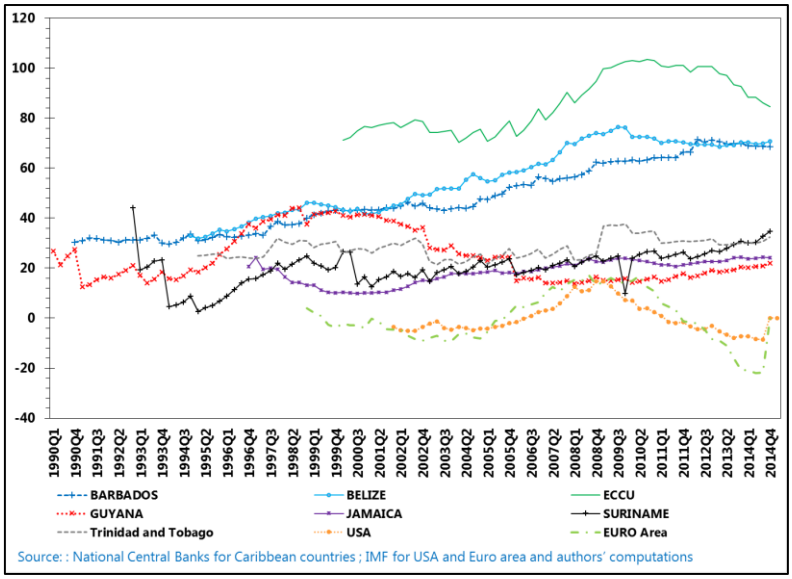
The credit-to-GDP gap has proved to be one of the most accurate indicators for predicting banking crises associated with excessive credit growth for up to five years in advance for a number of countries.[28] However, there is a lack of evidence that demonstrates the usefulness of this gap indicator for the Caribbean mainly due to the infrequency of crisis episodes occurring within the

[27] For countries where quarterly GDP data is available from the regional central banks, GDP is annualized by taking the sum of the four most recent quarterly observations; otherwise the end-year GDP figure is used in computing the ratio.

[28] Borio, C and P Lowe (2002): "Asset prices, financial and monetary stability: Exploring the nexus", BIS Working Papers, no 114, July.

available data sample. Notwithstanding, in light of strong endorsement by the Basel Committee on Banking Supervision (BCBS),[29] credit-to-GDP gaps for Caribbean countries are monitored for the possible build-up or unravelling of financial imbalances nationally as well as the potential for contagion in the region.[30]

Figure 5.2 : Credit-to-GDP Gaps for CARICOM, USA and Euro Area (%)



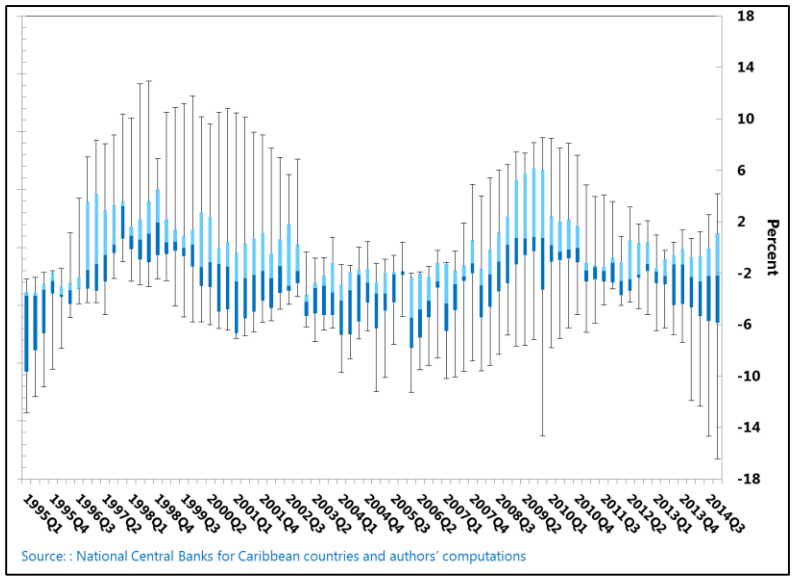
Credit cycle measures for individual Caribbean countries do not appear to have a strong regional component. That is to say, credit-to-GDP gaps shown in Figure 5.2 suggest fairly asynchronous credit cycles among Caribbean countries. Notwithstanding, the evolution of the median value and inter-quartile range since the 1990s shows a distinct cyclical pattern with peaks around 1997-8 and 2009-10 which appear to be influenced by a global component as patterned by the US and UK credit cycles (see Figures 5.2 and 5.3). Furthermore, credit cycle measures for Belize, Jamaica and ECCU have exhibited greater synchronicity with those of the USA and the Euro area since 2001 (when data became available across all countries), compared with the other Caribbean economies, with correlation coefficients above 50 per cent (see Table 5.1).

Although the recent downswing in the credit-to-GDP gaps of the USA and the Euro area appear to have influenced the gaps for most Caribbean countries, their effect on the ECCU's credit cycle appear to be the most pronounced. The recent movement in the credit-to-GDP gap for the ECCU is consistent with a substantial down cycle since the global crisis. This cyclical performance continued during 2014 in tandem with the progress of the credit-to-GDP gap for the USA and the Euro area.

[29] BCBS (2010), "Guidance for national authorities operating the countercyclical capital buffer." Bank for International Settlements.

[30] An "ex ante" or one-sided Hodrick-Prescott (HP) filter is employed for the computation of the historical trend over the period 1990 to 2014, where the smoothing parameter lambda (λ) is set at 400,000 to reflect a longer credit cycle relative to the business cycle (i.e., λ=1600).

Figure 5.3: Box-plots of Credit-to-GDP Gaps for the Caribbean (%)



Source: : National Central Banks for Caribbean countries and authors' computations

Influenced by strong trade relations with the US and the Euro area, the macroeconomic effects of the global crisis exacerbated an extended period of sluggish economic growth and resulted in rising NPLs and capital impairment in the banking industry.

Belize's credit cycle correlations with the USA and the Euro area are particularly strong at 89 per cent and 94 per cent respectively, using quarterly data up to end-2014 and starting from 2001Q4 (see Table 5.1). Of note, the banking sector in Belize is very vulnerable to a downturn in the US credit cycle which is buttressed by the fact that the US controls the largest share of Belize's trade in goods and services. Importantly, the high correlation is also consistent with significant parent bank deleveraging since the crisis.

Table 5.1: Credit-to-GDP Gap Correlations for the Caribbean, USA and Euro Area

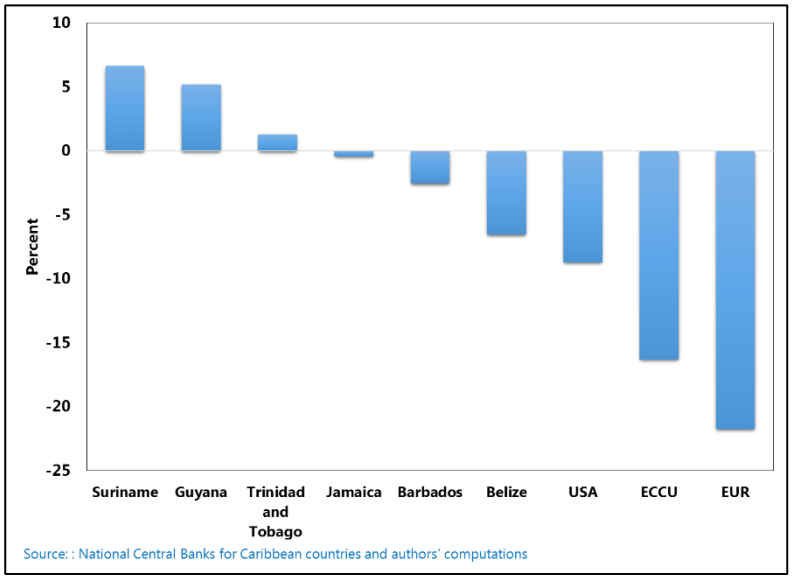
	BAR	BEL	ECC	EUR	GUY	JAM	SUR	T&T	USA
BAR	1	-	-	-	-	-	-	-	-
BEL	0.22	1	-	-	-	-	-	-	-
ECC	0.60	0.58	1	-	-	-	-	-	-
EUR	0.35	0.89	0.61	1	-	-	-	-	-
GUY	-0.27	-0.67	-0.2	-0.75	1	-	-	-	-
JAM	0.16	0.72	0.17	0.54	-0.71	1	-	-	-
SUR	0.00	-0.26	-0.18	-0.32	0.21	0	1	-	-
T&T	0.57	0.28	0.74	0.26	0.09	0.04	-0.07	1	-
USA	0.35	0.94	0.56	0.9	-0.69	0.67	-0.22	0.24	1

Note: Sample period is set at 2001Q4 to 2014Q4 to compute correlations to coincide with data availability across countries. Investigating the existence of common components across credit gaps could also be judged by computing lagged correlations. However, as credit cycles generally progress over a number of years, there should be significant overlap of the stages of the cycle across different jurisdictions in order to capture synchronicity through the use of contemporaneous correlation coefficients.

Also noticeable is the broadly negative correlations of credit cycles for Guyana and Suriname with those of the other Caribbean countries and, importantly, the credit cycles of the USA and the Euro area. The implication is that given the structure of their economies, particularly the presence of large gold export sectors, Guyana and Suriname are unlikely to experience contemporaneous boom-bust cycles with these advanced economies. This negative correlation was particularly evident during

2014 as the credit-to-GDP gaps for Guyana and Suriname rose while those for the USA and the Euro area declined (see Figure 5.2).

Figure 5.4: Credit-to-GDP Gaps for the Caribbean at end of -2014 (%)



Moreover, the credit gaps for Barbados, Belize and the ECCU at end-2014 all suggest significant values below their respective trends (see Figure 5.4).[31] It is important to point out that in the case of Barbados and ECCU, the numerous quarters of negative GDP growth post-global crisis and subsequent recovery underpin the negative end-point credit gaps. These values also suggest the presence of excess economic capacity to allow an increase in credit without generating financial imbalances. At the same time positive credit gaps for Guyana and Suriname at values of 5.2 per cent and 6.6 per cent at end-2014, respectively, indicate the need for greater scrutiny regarding the potential build-up in vulnerabilities for these economies. Note that strong evidence exists to suggest that credit-to-GDP gaps above ten per cent maximize the signal-to-noise ratio in the prediction of banking crises for selected industrial and market economies.[32,33] However, assessing immoderation of credit using standard thresholds is challenging in cases where banking sectors at different stages of development are undergoing structural changes or are involved in a process of 'catching up'.

[31] Caution should be used in interpreting end-of-sample values of the series' trend due to unreliability in estimation caused by end-of-sample bias.

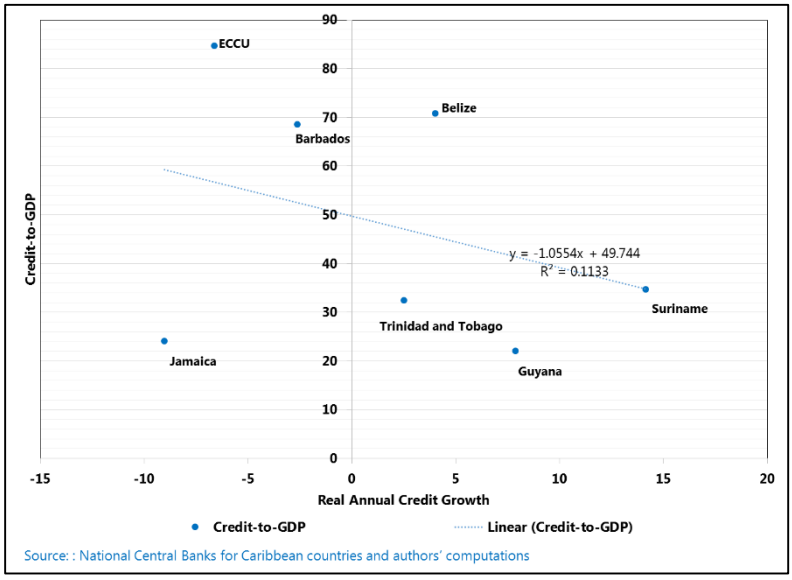
[32] See, for example, Drehmann, Borio, Gambacorta, Jimenez and Trucharte (2010) "Countercyclical capital buffers: Exploring options", BIS Working Paper No. 31 and Basel Committee on Banking Supervision, 2010, *Guidance for National Authorities Operating the Countercyclical Capital Buffer* (Basel: Bank for International Settlements).

[33] The choice of the ideal threshold involves a trade-off between the cost of missing a crisis (type 1 error) and the cost of calling a crisis which turns out to be false (type 2 error). The noise-to-signal ratio is defined as the fraction of type 2 errors divided by one minus the fraction of type 1 errors.

5.2.2 Additional Credit Cycle Indicators

Although the credit-to-GDP gap serves as a common systemic indicator for the tracking of credit cycles, for small developing economies in the Caribbean sharply rising credit growth and deviations from trend may be inaccurately labelled as excessive where increases are linked to the convergence process rather than signalling a worsening of systemic risk. Evidence using end-2014 data across Caribbean countries broadly supports the notion that countries with lower levels of credit-to-GDP exhibit higher growth rates in credit. Specifically, there were negative relationships between the real annual credit growth rate and the credit-to-GDP ratio at end-2014 which is supportive of the convergence process across the Caribbean (see Figure 5.5). Jamaica stands as an outlier with low credit-to-GDP and negative annual credit growth. This can be explained by the recent process of substantial fiscal consolidation, which has dampened economic activity including credit growth, in the context where the public sector has historically crowded out private sector credit.

Figure 5.5: Credit-to-GDP and the Real Annual Growth Rate of Credit in the Caribbean



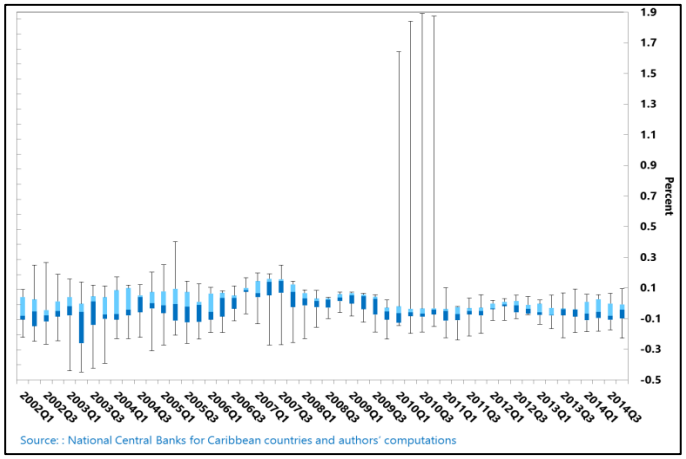
Source: : National Central Banks for Caribbean countries and authors' computations

Against this backdrop, additional credit indicators are monitored to supplement the evaluation of the credit-to-GDP gap. Specifically, similar to the effects from strong increases in the credit-to-GDP gap, sustained periods of strong aggregate or sectoral credit growth are known to precede banking crises. Accordingly, year-on-year real growth rates of consumer, business and real estate credit (measured in US dollars) are observed to juxtapose the performance of the credit-to-GDP gap.

Based on historical quarterly data up to end-2014, the level of real business credit has been higher than the level of real corporate credit in the case of the commodity producers as well as Belize.[34] In addition, the average rate of growth in real business credit has been mostly higher compared to the average rate of growth in consumer credit for commodity producers, Guyana and Suriname. In terms of the real estate sector, its share

[34] The sample begins in 2002Q2 in line with data availability across countries.

Figure 5.6: Box-plots of Real Business Credit Growth Gaps for the Caribbean (y-o-y)



of real credit has been much higher than the shares of real credit to the consumer and business sectors in the case of Trinidad and Tobago.

Across the countries in the region using available data up to 2014, Guyana displayed the greatest real growth rates for consumer, business and real estate credit. Comparatively, Jamaica was on the other end of the spectrum and displayed negative average real growth rates for the business and real estate sectors.

In regard to the evolution of gaps in real consumer, business and real estate credit growth from trend, real consumer credit growth stands out as the most dynamic (see Figures 5.6 – 5.8).[35] Furthermore, the evolution of the gap in real consumer credit growth and the gap in real business credit growth appears to reflect a contemporaneous association with the global cycle. This is unlike the pattern of credit-to-GDP gaps for the Caribbean which appears to track the global crisis with a one- to two-year lag. Since a brief upturn in the real growth of real estate credit in 2004, there has been no discernible change in the pattern of real loan growth to this sector.

Figure 5.7: Box-plots of Real Consumer Credit Growth Gaps for the Caribbean (y-o-y)

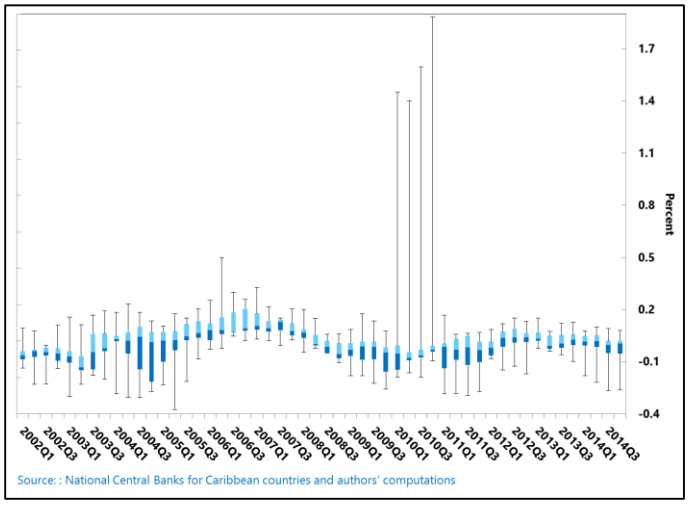
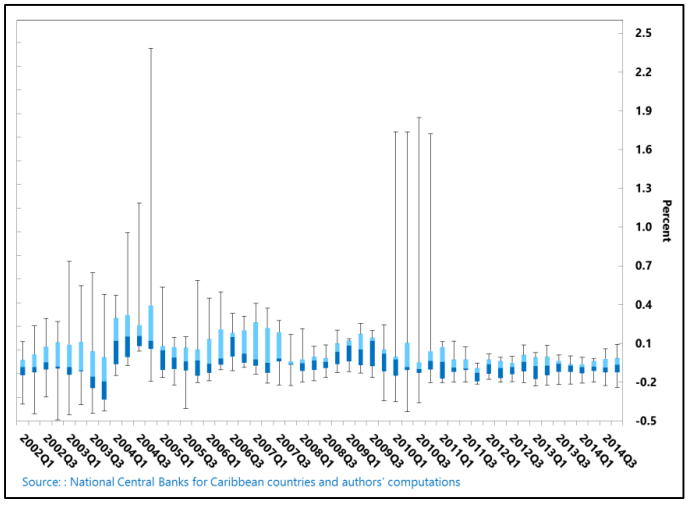


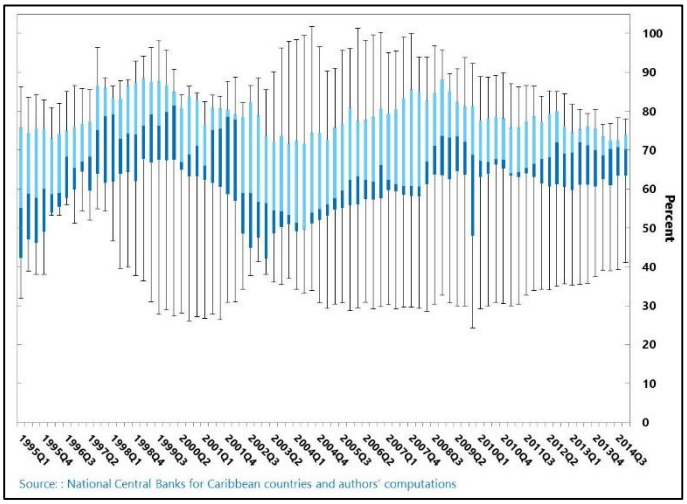
Figure 5.8: Box-plots of Real Estate Credit (Real) Growth Gaps for the Caribbean (y-o-y)



[35] The historical trend is computed using the one-sided Hodrick-Prescott (HP) filter over the period 1990 to 2014, where the λ is set at 400,000.

5.3 EXCESS LIQUIDITY FOR THE CARIBBEAN

Figure 5.9: Loans-to-Deposit Ratios for the Caribbean (%)



Rapid and sustained increases in the loans-to-deposits ratio are often a precursor to financial instability. Sharp increases in bank credit without an associated rise in the level of deposits indicate greater fragility in banks' funding structure as they shift financing reliance to non-core, unstable liabilities. This association is particularly expected for the developing countries of the Caribbean where capital markets are generally immature.

For 2014, the loans-to-deposits ratio continued to remain below 100 per cent for all countries at broadly similar levels to 2013, which is indicative of benign systemic risk from funding sources for the region (see Figure 5.9). Importantly, the inter-quartile range of the loans-to-deposits ratio continued to show moderation relative to levels just prior to the global crisis, although the ratio displays significant heterogeneity across the region. Notwithstanding the continued dependence on core deposits to fund loans, the lack of depth in funding markets across the region represents a latent source of systemic risk. As indicated in chapter three, domestic money, corporate bond and equity markets remain absent for a number of the smaller Caribbean countries. So in the event of a deposit shock where money markets are underdeveloped, domestic banks may be forced to seek short-term funding from external financial institutions where available, making them vulnerable to liquidity (rollover) and foreign exchange rate risks.

It is noteworthy that for 2014, credit growth was positive for the commodity-producing countries but negative for the service-producing countries - except Belize. In terms of deposits, all countries registered broadly positive growth for 2014, except Jamaica. Furthermore, whereas growth in credit for 2014 out-paced growth in deposits for the commodity producers, the opposite occurred for the services producers, save Jamaica; the latter due to a faster decline in deposit growth compared to the fall in credit growth.

5.4 ASSESSMENT OF CHANNELS FOR CROSS-BORDER CONTAGION

Significant shocks to the health and soundness of national financial sectors can be triggered not only from domestic credit and asset price cycles but also from direct and indirect cross-border exposures.

Potential shock propagation channels through which Caribbean economies may be affected include those from the financial and real sectors.

In regard to the financial sector, conglomerates comprising primarily banks and insurers are active in the Caribbean and represent a major potential channel of contagion across the region. The major financial groups in the Caribbean which have a relatively large presence in the region include: Scotiabank, CIBC First Caribbean, Royal Bank of Canada, Republic Bank, and Sagicor. Using the latest available data as at end-June 2013, banks and insurers in the region had significant total exposures to cross-border claims of over ten per cent of total assets, particularly in the case of Barbados, Guyana, Jamaica, Suriname and Trinidad & Tobago (see Figure 5.10). Of these total cross-border claims, 32 per cent were inter-regional and 68 per cent extra-regional. Barbados had the only exposure to the region of above ten per cent of assets (15 %), chiefly to ECCU. Suriname was the most exposed to contagion from outside of the region, amounting to 25.4 per cent of total assets, mainly reflecting exposure to Europe of 18.6 per cent (See Figure 5.11-5.12).

Figure 5.10: Total Cross-border to Total Assets for Banks and Insurers[1] (%)

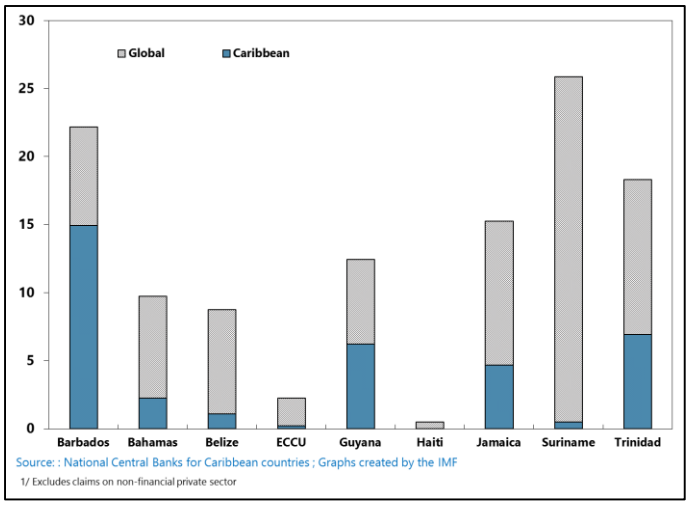


Figure 5.11: Global Cross-border Claims to Total Assets for Banks and Insurers[1] (%)

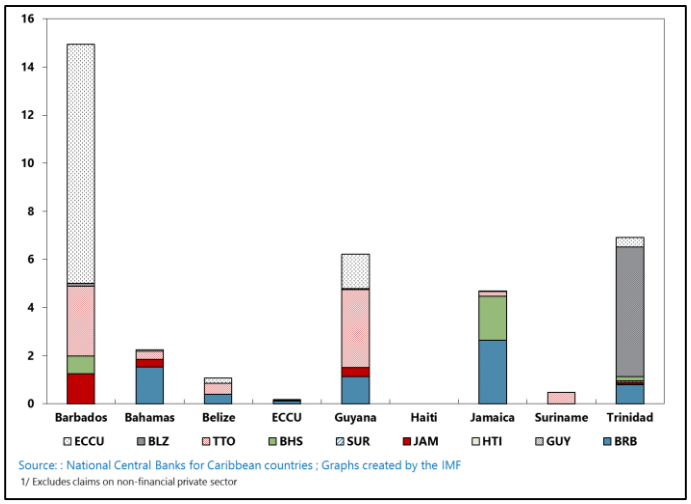
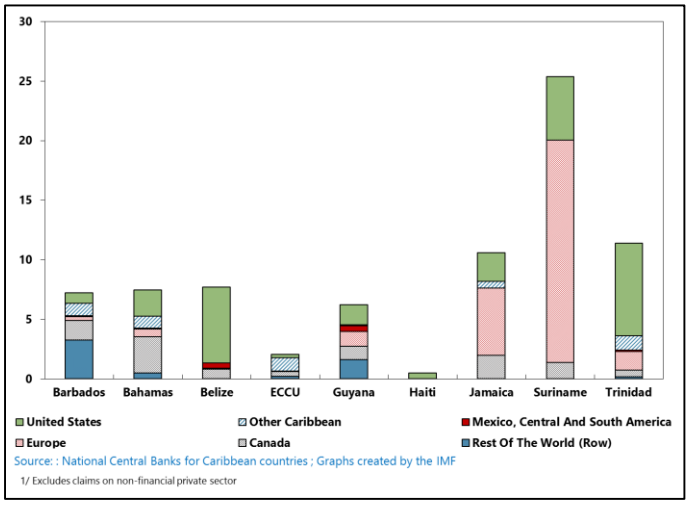


Figure 5.12: Regional Cross-border Claims to Total Assets for Banks and Insurers[1] (%)



With respect to cross-border sovereign exposures, none of the financial sectors in the region had greater than ten per cent of total assets exposed to sovereign assets based on positions at end-June 2013 (see Figure 5.13). Trinidad recorded the largest exposure relative to total assets of 7.9 per cent. Also of note, banks and insurers displayed significant regional bias with 63 per cent of their exposure concentrated in regional sovereign holdings. Regional sovereign exposures were mainly to ECCU (19%), Trinidad & Tobago (20%), Barbados (20%) and Belize (15%) (see Figure 5.14). Global sovereign exposures were primarily to the United States (34%) with Trinidad & Tobago having the largest exposure to that country of 3.1 per cent (see Figure 5.15).

Figure 5.13: Total Cross-border Claims to Sovereigns to Total Assets for Banks and Insurers (%)

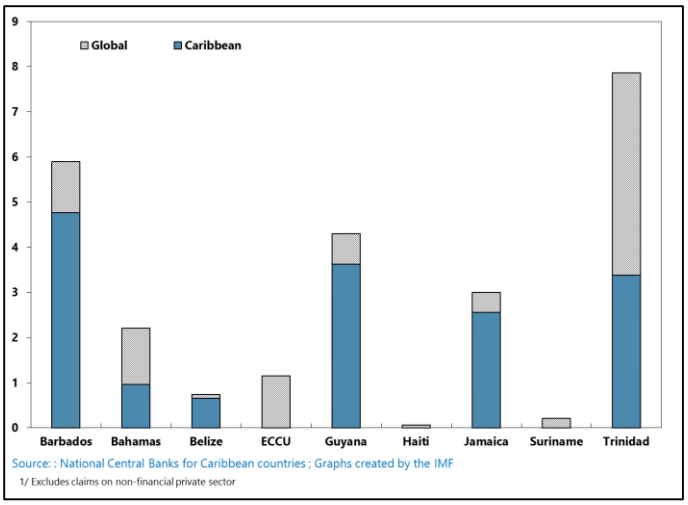


Figure 5.14: Global Cross-border Claims on Sovereigns to Total Assets for Banks and Insurers (%)

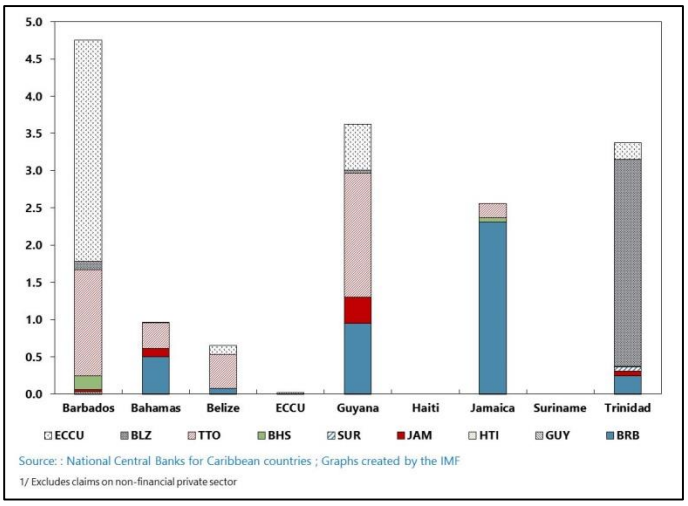
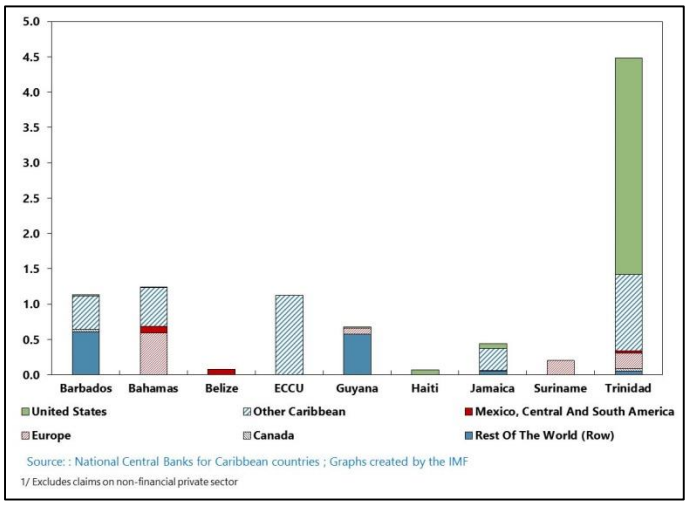


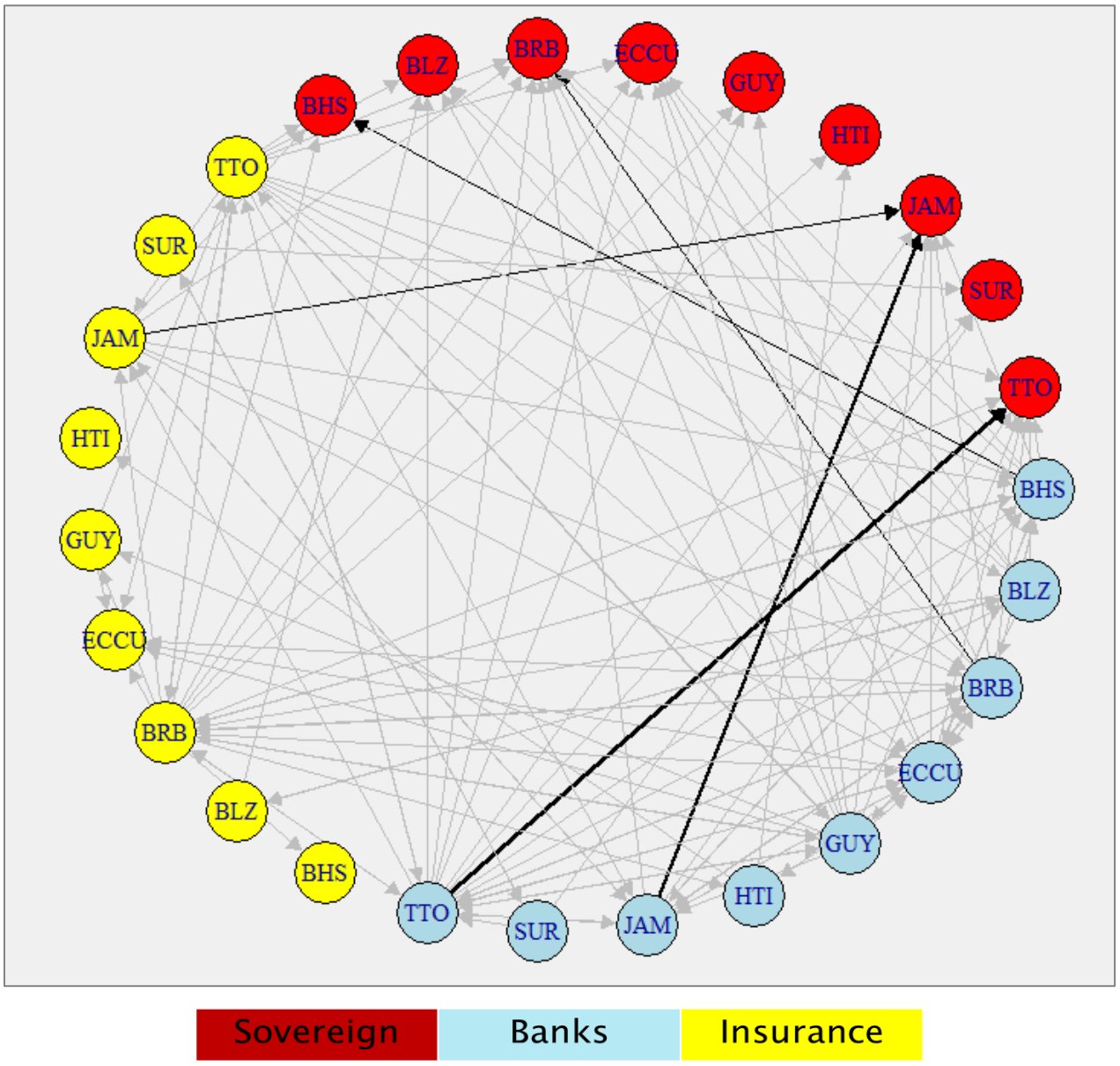
Figure 5.15: Regional Cross-border Claims on Sovereigns to Total Assets for Banks and Insurers (%)



Despite representing small exposures relative to total assets at end-June 2013, regional sovereign cross-border claims of banks and insurers were more significant than inter-institutional exposures. This is evident in Figure 5.16 which shows the directional network of regional gross cross-border claims where the five largest exposures in United States dollar terms are to regional sovereigns as highlighted. Further, these institutional claims were on the domestic sovereign in each case.

The structure of the regional cross-border network also appears to be incomplete with Belize, Suriname and Haiti showing limited interconnectedness with the rest of the region at end-June 2013 as depicted in Figure 5.17. In contrast, Barbados, Jamaica and Trinidad & Tobago have a greater clustering of exposures compared to the rest of the region. This suggests the greater importance of a regional approach to managing potential contagion for these three countries.

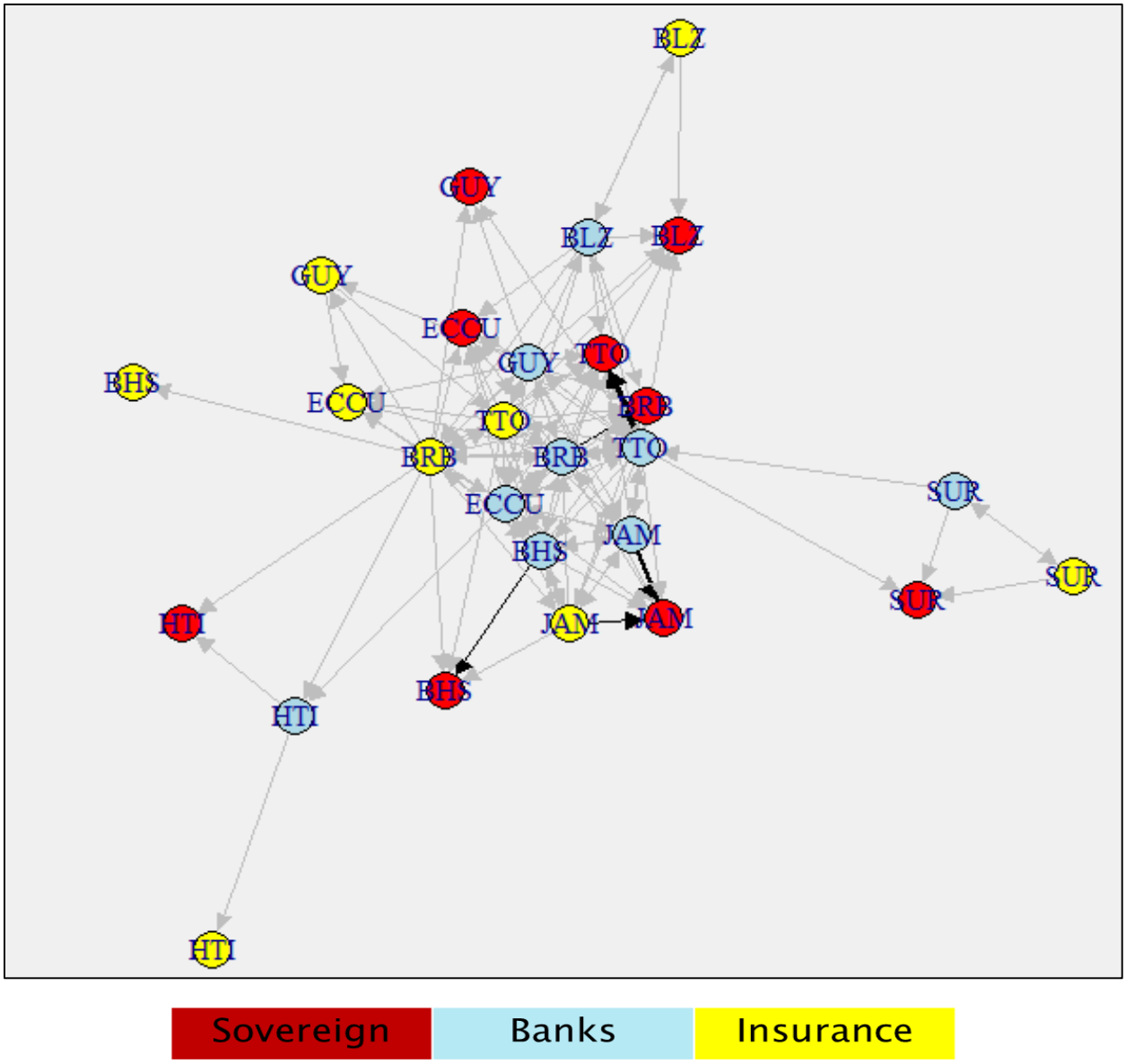
Figure 5.16: Domestic and Regional Gross Claims[1/]



1/ Five largest exposures (in US$ terms) are highlighted

Source: National central banks for Caribbean countries; graphs created by the IMF

Figure 5.17: Domestic and Regional Gross Claims with Like Nodes Adjacency



Source: National central banks for Caribbean countries; graphs created by the IMF

5.5 RESILIENCE OF THE FINANCIAL SYSTEM TO SYSTEMIC RISK

The actual resilience of domestic financial sectors to regional contagion depends on a number of factors including the adequacy of capital, liquidity and the strength of the domestic macro-financial environment. Risk assessment exercises conducted by the authorities in the Caribbean since the advent of the global financial and economic crisis have tended to show that the deposit taking institutions, essentially the commercial banks for most jurisdictions, maintained a considerable degree of stability. The stress tests that have been conducted, based on large but plausible movements in key financial variables, have tended to show healthy results.

A main reason for the resilience to shocks is that the commercial banks in the region tend to operate with fairly high levels of liquidity and capital relative to international benchmarks. As a result, despite the fact that there was a very significant rise in the rate of non-performing loans to total loans and an equally sharp decline in the return on equity and the return on assets, the banking system as a whole managed to ride out the crisis. Nevertheless, falling interest rate margins, primarily due to a decline in the interest rate on loans, would suggest that maintaining the same level of operational efficiency requires revenue enhancement and/or cost reduction in other areas.

With respect to the insurance industry, formal stress tests have only been conducted in Jamaica and Barbados, despite the upheavals that the crisis precipitated in the Caribbean. However, the authorities have sought to ensure that firms strengthen their capital buffers, technical reserves, statutory funds and liquidity safeguards.

One important requirement for developing a stress testing capacity with respect to the non-banking sector is a more effective data generation capacity. While some progress has been made in the case of the life and non-life insurance sectors, significant weaknesses exist with respect to the scope, regularity, harmonization and timeliness of credit union and pension fund data.

In addition, regional authorities are currently focused on conducting cross-border contagion stress tests which are at the heart of regional macro-prudential surveillance. Unlike typical stress tests on individual institutions, these tests are aimed not just at estimating the resilience of domestic financial systems, but also at seeing how failure of individual institutions would propagate through the region, and therefore whether there are domestic risks that are regionally systemic in magnitude.

Chapter 6: POLICY INITIATIVES FOR MAINTAINING FINANCIAL STABILITY

6.1 OVERVIEW

Since the 2008 global financial and economic crisis, the need to strengthen stability frameworks in individual jurisdictions as well as across the region has been underscored by the recognition that regional financial markets are integrated by the cross-border activities of several of the financial institutions that operate in the financial space. The collapse of the Trinidad and Tobago-based CL Financial Holdings, the largest financial conglomerate in CARICOM, with its attendant contagion effects across the region, demonstrated how financial interconnectedness could spread crisis. This event emphasised the need to upgrade the regional financial stability architecture for regulating and monitoring financial institutions that operate across regional borders and for creating the framework for the management and resolution of any cross-border crises that might arise.

Financial stability architecture refers to the set of institutions, laws, conventions, data systems and executive decision-making and accountability protocols which work together to monitor, report and implement policies to maintain financial stability. The regional architecture must build on the domestic architecture within individual jurisdictions, while recognizing that the responsibility for the management and resolution of crises remains with the individual authorities.

Post crisis, significant progress has been made across the region in enhancing domestic frameworks and in strengthening protocols for regional collaboration as it relates to institutions that operate cross-border. Going forward, policymakers need to make the regional financial stability reporting the centrepiece of financial sector analysis through enhanced data collection. This would support the work of regional regulators who have been reducing gaps in regulation and supervision that can undermine financial stability and developing the framework for crisis management preparedness. This work needs to be sustained.

6.2 DOMESTIC INSTITUTIONAL STRUCTURES

The domestic regulatory architecture in the various jurisdictions is a critical component of the thrust to develop a regional framework. To a large extent, on-going domestic financial sector regulation in each jurisdiction is conducted under the following framework:

1. The responsibility for financial stability is vested implicitly or explicitly in the central banks which also undertake micro-prudential regulation of commercial banks. At present, financial

stability is not universal in law but it is generally accepted that regional central banks need to be able to act promptly if a systemic problem arises.

2. Laws and guidelines consistent with international standards for the prudential supervision of relevant financial institutions have been implemented. This regulatory framework incorporates *inter alia* provisions for

    i. Licensing financial institutions;

    ii. Prudential norms to be applied consistently to individual institutions;

    iii. The powers of regulatory agencies; and

    iv. The resolution of licensees.

    v. In some cases, however, regional laws have not been adapted to reflect the scope and pace of changes in international standards.

3. With respect to the non-bank financial sector, the regulatory situation is also rapidly evolving, with a single or multi-sector supervisory agency in each jurisdiction charged with the responsibility for

    i. Monitoring the performance of individual institutions and conducting regulatory risk assessments through an analysis of prudential indicators, stress tests, capital adequacy and institutional and systemic conditions that might affect the licensee;

    ii. Conducting prudential inspections;

    iii. Assessing the effectiveness of the governance in place; and

    iv. Recommending, where necessary, and ensuring implementation of corrective actions.

4. Domestic financial stability is assessed through

    i. The preparation of national financial stability analyses that focus on the impact of economic shocks on the solvency of financial institutions and the potential for transmission of risks from one sector to another sector; and

    ii. On-going information sharing among domestic regulators. In some jurisdictions, domestic financial oversight committees have been created with responsibility for the monitoring of early warning indicators. However, institutional arrangements for crisis preparedness, management and resolution planning are still not fully developed across the region.

5. Domestic financial sector safety nets as generally evidenced by deposit insurance entities that provide coverage for bank depositors have been established. However, deposit insurance is not available in all jurisdictions. Safety nets for other sectors[36] do not exist, although at least two jurisdictions are considering deposit insurance schemes for the credit union sector.

6. Access to domestic central bank lender of last resort facility is available for solvent and viable institutions. Where the central bank lacks official responsibility for financial stability, it often has limited capacity to provide this service for non-bank financial institutions.

The domestic frameworks[37] are supported at the regional level by umbrella groupings such as the Caribbean Group of Bank Supervisors (CGBS), the Caribbean Association of Insurance Regulators (CAIR), The Caribbean Association of Credit Union Supervisors (CACS), the Caribbean Association of Pension Supervisors (CAPS) and the Caribbean Group of Securities Regulators (CGSR). These groups help regulators keep abreast of emerging developments, promote compliance with international standards among regulators and facilitate information exchange.

In addition to these regulatory bodies, the Caribbean Information and Credit Rating Services Limited (CARICRIS), which provides sovereign and corporate ratings within the region, serves as a financial soundness monitoring institution that can contribute to the maintenance of financial stability. However, penetration of this service remains limited, in part because of the low level of private sector bond issuance in the region. The ratings for corporate borrowers are complemented by the emergence of domestic credit bureaus to provide information on the creditworthiness of

[36] A 2013 survey conducted among CGBS members revealed that four jurisdictions indicated that they did not envisage any protection fund for shareholders and non-equity investors.

[37] Complementing the above regional architecture is the sub-regional superstructure of the Eastern Caribbean Currency Union (ECCU). With the aftermath of the crisis, a number of new stability institutions was proposed, including a regulatory oversight committee; ministerial sub-committees and technical committees of regulators; a financial stability and policy unit; a financial stability group; a deposit insurance corporation; an Eastern Caribbean automated clearing house; and the speeding up of the establishment of the self-regulatory units, an institution proposed before 2008 in each of the seven jurisdictions for overseeing all the financial firms, but whose implementation in most cases has not yet taken place. Nevertheless, the Core Committee on Insurance did the preparatory work for the Monetary Council to approve in 2013 the establishment of the Eastern Caribbean Financial Services Commission (ECFSC) as the single sub-regional regulator and supervisor of the insurance sector. With respect to the securities sector, there also exists an Eastern Caribbean Securities Regulatory Commission.

borrowers that would prevent delinquents with a bad repayment record in one financial institution from accessing a loan in another institution.

6.3 REGIONAL FINANCIAL SECTOR REGULATORY ARCHITECTURE

Cross-border financial institutions present supervisory challenges as problems in one jurisdiction may lead to contagion in other jurisdictions in which they operate. A risk-mitigating regional financial architecture for enabling jurisdictions to cooperate and share information and to create the framework for the management and resolution of any cross-border crises that might arise is therefore critical for long term regional financial stability.

To address these challenges and reduce the risk or cost of failure, an effective regional architecture needs to promote on-going monitoring during normal or stable times while providing for the mobilisation of resources and the voluntary coordination of decisions and actions where instability threatens. The domestic architecture needs to be buttressed by

i. The institutionalisation of a governance framework for financial stability to enable the monitoring of cross-border entities in normal times and to address problems when institutions are under stress. This can be supported by the institutionalisation of the Regional Financial Stability Coordination Council, the development of data systems for measuring and monitoring regional financial risk exposures and the on-going preparation of an annual Regional Financial Stability Report that assesses the stability of the regional financial system, the risks it faces and how risks can be spread across jurisdictions;

ii. The strengthening of regulatory and supervisory frameworks through increased harmonisation of laws, elimination of regulatory gaps, implementation of consolidated supervision, creation of institution-specific supervisory colleges and the development of Memoranda of Understanding to facilitate information sharing among regulators; and the establishment of executive protocols for intervention at the regional level including standards for intervention triggers and the development of common resolution frameworks.

6.3.1 Governance Framework

An agreed governance framework for cross-border regulation and supervision is critical to the development of a regional approach to financial stability. Given the balance between national and regional interests, roles need to be clearly defined as to how entities that operate cross-border should be regulated. It is recommended that the framework should consist of

1. The Committee of CARICOM Central Bank Governors. Given the central banks' role in monitoring financial stability, governors need to focus on regional financial stability. In this regard, governors will

    i. Receive periodic reports, including a regional financial stability report, on the health of the financial system;

    ii. Advise the Council of Finance and Planning generally on systemic risks to the regional financial system;

    iii. Devolve into sub-committees of relevant governors to form in association with the relevant supervisory authorities a Regional Crisis Management Group (RCMG) where an institution is deemed to face problems that could have cross-border implications. The RCMG, under the chairmanship of the governor of the home country of the problem institution, will coordinate the actions necessary to resolve the situation.

2. Domestic Standing Group (DSG): Each jurisdiction should establish a group that responds quickly to emerging problems. In some countries, this group may consist of the Financial Oversight Committee augmented by a representative of the Ministry of Finance and any other oversight authorities deemed to be relevant in the jurisdiction. The DSG facilitates the management and resolution of the emerging problems at a national level and is expected to co-ordinate information sharing and supervisory response within the national jurisdiction.

3. Cross-Border Coordinator (CBC). The CBC serves as the liaison between the relevant sub-committee of governors (SCOG) and the Domestic Standing Group (DSG) in each jurisdiction. He assumes operational responsibility for the overall coordination of actions in a particular cross-border context which may vary according to the nature and stage of the crisis. The responsibilities of the CBC include:

    i. Ensuring the sharing of information among the relevant jurisdictions without delay;

    ii. Assessing the systemic nature of the problem and its cross-border implications;

    iii. Ensuring all *relevant parties* are informed of the assessment process and outcome of the assessment;

iv. Coordinating the public communication process and ensuring that public communications are shared among stakeholders before release to the public;

v. Updating and distributing contact list details of *relevant parties* where a problem emerges; and

vi. Responding to enquiries from other supervisors/parties at a cross border level.

This framework allows for pre-emptive monitoring and cooperation and coordination at the regional level. At the same time, it allows for early decisions on the scale and nature of any intervention contemplated by national authorities.

6.3.2 Regional Financial Stability Council

This Council was created to oversee the preparation of this first Regional Financial Stability Report. Given the potential of this report to inform policymaking within the region, it is desirable for this Council to continue as a standing committee of the central bank governors to oversee the definition and compilation of data and the preparation of future reports. It is crucial that the authorities enhance the provision of data and information on the workings of the financial institutions and the financial system as a whole, particularly with respect to non-bank financial institutions, thus enabling the generation of performance indicators and early warning ratios to improve the basis for decision-making.

6.3.3 Regulatory Framework

Following the fallout from the global financial and economic crisis, there was a deliberate strategy on the part of the various jurisdictions to strengthen and modernise legislation relating to both central bank powers and policy towards the various financial sectors, *inter alia*. Experience has shown the need to make financial stability an explicit objective of the government, along with the granting of discretionary powers concerning the provision of liquidity, the conduct of inspections and the sharing of information.

In an ideal setting, these efforts to enhance the regulatory framework would yield harmonized financial sector legislation across the regional financial landscape. However, differences in timing of implementation of rapidly evolving standards together with domestic pressures often slow the harmonization effort, resulting in differences of interpretation of data. For example, as the

authorities in banking focus on regional compliance[38] with Basel I, II and III standards (See Box 6.1), there is the risk of variation among Caribbean jurisdictions in the procedures for risk weighting, even under the standardized approach that is being adopted by Caribbean jurisdictions. This lack of harmonisation may also impact the effective implementation of a Regional Crisis Management Plan as discussed in 6.3.7 below.

Box 6.1: CORE ASPECTS OF THE BASEL I, II AND III ACCORDS

The Basel accords have become the benchmark for best practices with respect to capital adequacy for banks. Basel I was introduced in 1988 partly as a result of previously experienced crises, including the savings and loans crisis in the USA. Its essence was the requirement that capital adequacy be determined by a minimum percentage (8 per cent) of assets (with tier 1 capital, equity plus earnings, being at least 50 per cent) and that the minimum assets be risk weighted, with 0 per cent for cash, gold and government bonds, 20 per cent for municipal and government agency bonds, 50 per cent for residential mortgages and 100 per cent for consumer loans and unsecured commercial loans.

Basel II came into being in 2007 as a result of the perceived weaknesses in Basel I, including the insufficiently risk-sensitive nature of the 8 per cent capital ratio in calculating default risk, and the failure of credit risk to include operational risk (managerial error) and market risk. Basel II uses a "three pillars" approach. The first pillar incorporates the three major risks mentioned above and, in addition to the retained 8 per cent of risk-weighted assets under Basel I, introduced a 150 per cent weighting for borrowers with lower credit ratings. The second pillar is an encouragement for regulators and supervisors to deal with not only the risks under pillar 1 (credit risk, operational risk and market risk) but also all other residual risks, such as systemic risk, concentration risk, strategic risk, reputational risk, liquidity risk and legal risk. The third pillar exhorts market discipline by developing a set of disclosure requirements, and the sharing of information among investors, analysts, customers, other banks and rating agencies, among others. The effectiveness of this third pillar is very much dependent on the practice of good corporate governance.

Basel III was introduced in 2010 as a result of the weaknesses revealed by the 2008 financial and economic crisis. Regulatory capital requirements and liquidity standards have been strengthened. A new capital conservation buffer has been established above the regulatory minimum capital requirement which will be introduced in 2016 and will increase every year until 2019. A new leverage ratio is designed to supplement risk-based capital requirements. Two new liquidity requirements have also been introduced: a liquidity coverage ratio and a net stable funding ratio.

[38] All the Caribbean jurisdictions have virtually implemented Basel I with respect to its requirement that, for capital adequacy purposes, risk-weighted assets should be not less than 8 per cent of total assets.

Throughout the region, banking regulation has generally been more advanced than in other subsectors. In the aftermath of the CL Financial incident, efforts are on-going to enhance insurance regulation and supervision. Jurisdictions are in the process of enhancing the mandate of the financial authority (increasingly the central bank), strengthening the independence of the regulator, enacting new regulations and guidelines, and strengthening the power of the financial authority to obtain in-depth information from insurers, affiliates and controlling shareholders. In particular, the authorities are ensuring stricter adherence to statutory fund requirements and stipulated local/foreign asset ratios.

The credit union sector has also been subject to the reform process. Legislation aims to stipulate what assets and liabilities are permitted, offences for which persons are liable, and the criteria for membership of the board and committees, *inter alia*. In addition, regulations were introduced to establish the supervisory regime that will be applicable to credit unions. Regulations have been drafted to prescribe prudential criteria and minimum solvency standards covering, *inter alia*, essential areas such as capital adequacy, permissible assets and liquid assets, credit limits, non-accrual and provisioning requirements, submission of financial statements, and remedial action that can be taken by supervisory authorities with respect to unsafe and unsound practices or insolvency.

6.3.4 Consolidated Supervision

Financial institutions that operate cross border must be subject to consolidated supervision whereby all of the financial subsidiaries and branches must be consolidated and monitored by the home regulator[39]. Consolidated supervision for a financial holding company or parent institution imposes a requirement that the licensed entity satisfies prudential requirements at both the solo entity and consolidated level. Such cross-border supervision features important monitoring roles for both the host and home supervisors in the areas of capital adequacy, liquidity levels, rate of earnings, extent of leverage and efficiency of management, *inter alia*. Such monitoring may allow early identification of non-performing assets within the group and the potential for the transmission of cross-border risk that can eventually cause region-wide problems.

[39] The Home Regulator is the supervisor in the licensee's parent jurisdiction charged with the responsibility of effectively supervising the financial institution on a consolidated basis. This contrasts with the Host Supervisor who **is** the supervisor in the host jurisdiction charged with the responsibility of effectively supervising the financial institution on a non-consolidated basis.

Essential to the success of a policy and mode of consolidated supervision is the sharing of information and the broadening of the whole range of surveillance of subsidiaries. Articles 13 and 14 of the CARICOM Financial Services Agreement, which was approved by the ministerial Council for Finance and Planning (COFAP) in 2013 and is awaiting approval by the Heads of Government (see Box 6.2) already provides a basis for a regional focus in this area.

Box 6.2: Regional Agreement on Cross-Border Supervision

Article 13

Cross-Border Supervision of Financial Institutions, Conglomerates and Issuers of Securities

Contracting Parties shall ensure that –

I. A supervisory authority or a regulator of a financial institution or financial services is able to make an assessment of all significant aspects of the operations of the financial institution, its subsidiary, affiliate or branch or other entity regarding safety, soundness and market conduct;
II. The supervisory or regulatory authority uses the appropriate evaluative techniques that are central to the supervisory or regulatory process adopted by such supervisory authority or regulator with a view to obviating systemic risks.

Article 14

Cross-Border Supervisory Coordination and Cooperation

I. Where a supervisory authority or regulator in a Contracting Party requires information for supervisory or regulatory purposes concerning a financial service supplier in another Contracting Party, that supervisory authority or regulator may approach the relevant authority in the territory of the other Contracting Party to seek the information.
II. The provision of information by a supervisory authority or a regulator is subject to the terms, conditions and limitations contained in the relevant law of the Contracting Party or to the requirement of a prior agreement or arrangement between the respective financial supervisory authorities or regulators.
III. Subject to paragraph 2 of this Article, information requested from another supervisory authority or regulator in another Contracting Party shall be provided without undue delay following receipt of the request.

Source: Caribbean Financial Services Agreement

6.3.5 Supervisory Colleges

Supervisory colleges should exist for all financial institutions that operate cross-border so as to:

1. assist members in developing a better understanding of the risk profile of the financial sector group;

2. facilitate information exchange and cooperation between supervisors; and

3. strengthen supervision of individual entities in the group.

In addition, supervisory colleges can assist in the identification of emerging systemic problems. Colleges may serve as a catalyst to facilitate "top down" risk assessment from a macroprudential perspective. This would enable the identification of such issues as risk concentrations, correlations, and problematic asset class pricing levels. Colleges may also serve as a means to collecting information for macroprudential analyses that identify market-wide and firm-specific vulnerabilities. Colleges could also promote the implementation and use of macroprudential tools and facilitate a process of peer review to ensure their consistent and effective implementation.

6.3.6 Memoranda of Understanding

To ensure appropriate information sharing, regulators need to establish formal information gateways that cover the types of information that supervisors would wish to share. The lack of formal agreements should not be allowed to impede effective information sharing among members of the college, consistent with applicable laws. The flow of information should be continuous and timely, rather than one-off or periodic.

6.3.7 Crisis Management Planning

Given the number of financial enterprises in the Caribbean that are either relatively large and/or are also operating cross-border in other member states, a Regional Crisis Management Plan is central to the on-going financial stability of the region. An adequate institutional and prevention framework is expected at most times to inhibit a financial crisis from developing, but this is not guaranteed and so early intervention and resolution arrangements need to be put in place.

The CGBS, at the behest of the central bank governors, is working on a regional plan for the banking sector (See Box 6.3). Underpinned by the governance and regulatory arrangements set out above, the Plan should allow for timely intervention and resolution of problem institutions. Speedy action is required so as to mitigate the possibility of panic reaction on the part of depositors, policyholders, shareholders, investors and creditors or other cross-border spreads of contagion. However, the capacity for early intervention requires the identification of appropriate triggers. These may include declining capital adequacy ratios, deterioration in the quality of assets, excessive concentration in lending, declining profitability ratios, very low or rapidly falling liquidity ratios, overall assessment that the institution is likely to fail, and/or a solvency threat from a rapidly deteriorating economic situation in the host state(s).

The institutional arrangement, for the plan recognizes the role of national crisis management plans and how these need to be synchronized with the Regional Plan. Compatibility of approaches could result in effective implementation of the Regional Plan, whereas differences could foretell problems in reaching regional consensus with respect to early intervention and, ultimately, resolution and recovery.

The current Regional Plan is a work in progress focused on the banking sector and therefore lacking an insurance sector dimension. Given the presence of significant insurance entities operating across the region, this gap needs to be addressed urgently.

Box 6.3: Regional Agreement on Cross-Border Supervision

Draft Regional Financial Risk Containment and Resolution Plan

OBJECTIVE OF THE PLAN

- **To promote preservation of financial stability in the region in the face of distress of a cross-border banking institution by, *inter alia:***
  - Enhancing regulatory preparedness regionally;
  - Establishing a framework for cooperation and communication among regulators.

ACHIEVEMENT OF OBJECTIVE

- **The main avenues to achieving the objective of the Plan are through:**
  - Development of national crisis management plans, inclusive of resolution regimes;
  - Implementation of cross-border cooperation and coordination arrangements;
  - Development of recovery and resolution plans by systemically important financial institutions (SIFIs).

NORMAL TIMES – KEY ACTIVITIES

- **Home Supervisor Responsibilities**
  - Monitoring of prudential criteria and maintaining a database for the group
  - Consolidated supervisory oversight of the cross-border banking group
  - Arranging supervisory colleges and other forms of information exchange
- **Host Supervisor Responsibilities**
  - Supervisory oversight of the branch or subsidiary
  - Initiate and advance discussions on national crisis management with domestic stakeholders

CONTAGION RISK MANAGEMENT - KEY ACTIVITIES

- **Resolution Strategies**
  - Discussions with institution on progress and success of strategies undertaken as outlined in their resolution plan
  - Discussion among the regional Financial Contagion Risk Management Group of other resolution options
  - Private Sector solutions - key interested acquirers
  - Public Sector solutions - use of public funds; burden-sharing
  - Suspension of operations
- **Convening of a Resolution College to discuss and agree on the most appropriate resolution option**

RECOVERY AND RESOLUTION

- **Recovery options include:**
  - Private sector options
  - Restriction of business activities
  - Recapitalization of the institution
  - Purchase by external party
  - Public sector options:
  - Management by the supervisory authority
  - Emergency liquidity from the Central Bank
  - Government support/emergency liquidity support

6.3.8 Resolution Mechanisms

The Draft Regional Plan contemplates such private sector options as restriction of business activities; recapitalization of the institution and purchase by external party and public sector options such as management by the supervisory authority, emergency liquidity from the central bank and government support/emergency liquidity support. There is no real contention surrounding the remedial private sector measures that the authorities may want to employ but, as evidenced by the CLICO/BAICO collapse, the Caribbean governments may have difficulty making a prompt response because of the lack of fiscal space. Many of the Caribbean countries are highly indebted which factor, if combined with a serious financial crisis, may prove difficult to handle. Instead of a "too big to fail" situation, the concerned governments may be faced with what one may term a "too big to save" scenario.

In implementing a recovery strategy, and in executing measures that are adequate for the occasion, particularly one with cross-border implications, it is important for major bank and insurance institutions to devise recovery plans to be assessed and approved by the supervisors, showing in detail the steps and measures that would be taken to return to viability. The authorities would be expected to identify impediments to resolvability and suggest portfolio and behavioural changes that might relate to capital, exposures, products and business activities, and reporting requirements.

Fiscally strapped governments engaging in 'bail-outs' during the global crisis, and cries of taxpayers shouldering the burden created by overpaid errant bankers, have caused a dramatic shift in the USA and Europe towards a future policy of 'bail-ins' by investors, shareholders, bondholders, and even depositors and policyholders. While the case has a certain amount of rationality, the Cyprus experience is engendering a degree of re-thinking (Box 6.4). It is important that the resolution approaches are not seen by the private sector players as condoning either reckless or grossly inefficient management, since this would accentuate tendencies towards financial instability. Moral hazard would therefore be mitigated if resolution measures are tough.

Box 6.4: THE CYPRUS 'BAIL-IN' EXPERIENCE

Three lessons can be learnt from the Cypriot saga. The first is the importance of having a state-backed "bad-bank" into which the bad loans of a restructured bank can be placed. These asset-management companies lift the weight of bad loans off the books of banks, at a big discount to their value when they were extended, freeing banks to provide credit for new ventures. Because these asset managers can operate on a longer horizon than banks, they can avoid distress sales. NAMA, the Irish version, concentrated at first on selling off assets in Britain, where property recovered faster than in Ireland.

Second, getting uninsured deposits to take much of the pain may help protect taxpayers, but in Cyprus it has destroyed public faith in banks. Big depositors everywhere will be more nervous as a result, with money taking flight at the first whiff of danger. It was precisely worries about bank runs that have made states reluctant for so long to hang banks out to dry. If bailing-in is to work, it should target longer-term debt that cannot be withdrawn and investors who can factor in the risk of a bust. This makes it vital that regulators promote innovations like contingent convertible bonds (or "cocos"), forms of debt that explicitly envisage bail-in.

The third lesson is that attempts to set rigid templates are likely to rub up against the crooked timber of banking. Politicians in America, as well as in Europe, are imposing binding rules to limit public liability and to discourage risky behaviour on the part of banks. But banking crises vary: some threaten a systemic collapse whereas others are containable. There must be flexibility to deal with the worst-case contingencies. Cyprus's difficulty in overcoming recession while its main bank is in such a mess should serve as a warning against strict solutions that smack of puritanism rather than pragmatism.

Source: The Economist, 8 March, 2014

6.4 MACRO-PRUDENTIAL POLICIES

As indicated in Chapter 5 of this Report, central banks in the region are investing significant energy and resources in building out their macro-prudential policy frameworks arising from the lessons of the global crisis. Although financial sectors in the Caribbean were spared from a "direct hit" in 2008 in terms of their non-exposure to "toxic" sub-prime assets from the USA, they suffered severe "knock-on" effects from the crisis related to the global economic downturn and contraction in leverage. Similar to the influence across central banks globally, these effects caused Caribbean regulators to fundamentally change their view that compliance with traditional micro-prudential regulations could guarantee the stability of all individual institutions. Specifically, the crisis identified the need for a conceptually distinct, overarching policy framework with appropriate objectives, powers and tools, which would be responsible for systemic financial stability. This systemic approach, which is branded macro-prudential policy, will complement – not replace – micro-prudential regulation.

It is recognized across the Caribbean that the regional central banks are uniquely positioned to carry out the financial stability mandate by virtue of their information advantage and expertise in understanding and analysing the nexus between macroeconomic developments and the financial system. In addition, the central banks are the repositories of aggregate information on the threats to financial stability, arising from their daily market interactions as well as payment system oversight and macroeconomic forecasting functions.

Against this backdrop, the key elements of macro-prudential regulation to address systemic risk which must be broadly harmonized and firmly instituted by central banks in the region include:

1. a clear mandate to which it can be held accountable with transparent and effective governance arrangements;

2. legal access to the relevant information especially relating to systemically important institutions, markets and infrastructure which may not otherwise be readily available;

3. defining intermediate objectives of macro-prudential policy related to financial imbalances and externalities that will operationalise its ultimate immeasurable objective to limit systemic risk and assure improved transparency and accountability;

4. control over a sufficient set of tools to address financial imbalances and externalities;

5. mapping intermediate objectives of macro-prudential policy to macro-prudential policy tools and macro-prudential policy indicators (MPIs), and;

6. Addressing key deficits for the conduct of macro-prudential policy in the Caribbean.

7. Regarding the latter point, primary among these deficits are limited data availability for development of systemic risk indicators and calibration of tools. Importantly, the closing of data gaps within the region should include the construction of real estate indices as well as collection of information related to household sector and corporate sector financial vulnerability.

Finally, a regional plan for macro-prudential policy should be developed and implemented by the regional central bank governors in the near-term. The key elements of a plan to formalize the design of a macro-prudential policy framework across the region should relate to:

1. Goals and tools: macro-prudential policy should have a sufficient range of instruments available to be introduced in order to mitigate or prevent the development of systemic risks.

2. Powers and governance arrangements: to set macro-prudential policy and support operational independence of the decision-making process.

3. Examination of the transmission mechanism: the macro-prudential policy must have the capacity to study the transmission mechanism of the instruments in order to better understand their impact and assure better selection and more precise calibration of the tools.

4. Accountability: the macro-prudential policy authority should publish its macro-prudential policy governance framework, including tools designated to correct deviations from operating macro-prudential targets.

Communication of the macro-prudential objectives and outcomes: this is a complex process which must be clearly formulated in terms of achieving operating targets and thresholds in the different phases of the financial cycle.

APPENDICES

APPENDIX I

Core FSI Indicators: Banking Sector-Capital Adequacy

Regulatory Capital to Risk Weighted Assets (%)

	2008	2009	2010	2011	2012	2013	2014
Bahamas	23.5	26.1	25.5	25.5	26.9	28.3	30.2
Barbados	16.1	17.5	17.1	19.3	20.9	19.7	20.5
Belize	19.3	20.4	21.8	23.5	22.4	24.4	24.3
ECCU	18.9	21.3	12.2	17.4	17.5	12.1	11.1
Guyana	14.9	18.2	18.9	19.1	19.3	22.5	21.8
Haiti	12.7	14.7	15.9	15.5	15.7	17.3	n.a.
Jamaica	15.1	18.7	18.2	15.9	14.1	15.3	15.8
Suriname	9.8	10.8	12.1	12.1	12.8	12.4	11.5
Trinidad & Tobago	19.1	21.8	25.7	16.0	25.7	25.0	24.7
Regional Weighted Average	21.7	24.3	24.3	24.1	24.9	25.4	23.7

APPENDIX 2

Core FSI Indicators: Banking Sector-Asset Quality

Non-Performing Loans to Total Gross Loans (%)

	2008	2009	2010	2011	2012	2013	2014
Bahamas	6.0	9.4	12.2	13.0	13.9	15.7	15.9
Barbados	3.4	7.9	10.8	11.1	12.9	11.7	11.5
Belize	12.7	12.2	18.4	18.9	17.2	14.8	14.3
ECCU	7.6	7.5	10.6	12.8	15.2	18.3	17.9
Guyana	9.5	8.3	6.5	5.4	6.0	6.0	8.6
Haiti	9.7	8.5	5.7	3.7	2.4	2.4	n.a.
Jamaica	3.0	4.7	6.5	8.9	6.8	5.4	4.9
Suriname	7.8	7.9	7.9	8.0	6.2	5.9	6.2
Trinidad & Tobago	2.4	4.6	5.8	6.2	5.5	4.3	4.4
Regional Weighted Average	5.4	8.4	10.7	11.5	11.9	12.6	10.3

APPENDIX 3

Core FSI Indicators: Banking Sector- Earnings and Profitability

Return on Assets (%)

	2008	2009	2010	2011	2012	2013	2014
Bahamas	2.5	2.3	2.7	2.5	1.7	0.7	-2.0
Barbados	1.4	1.6	1.2	1.0	0.9	0.8	0.7
Belize	2.0	1.7	0.7	-0.8	-0.1	0.9	0.0
ECCU	2.6	1.7	0.2	0.7	0.7	-0.1	0.2
Guyana	2.4	3.1	2.4	2.4	2.4	2.6	2.7
Haiti	1.5	1.5	1.2	1.4	1.4	1.5	n.a.
Jamaica	3.8	2.9	2.5	3.9	2.4	2.1	2.2
Suriname	2.8	2.5	2.1	1.9	1.9	1.7	1.7
Trinidad & Tobago	3.5	2.6	2.3	2.8	3.0	2.5	2.2
Regional Weighted Average	2.7	2.3	2.5	2.5	1.8	1.11	0.3

APPENDIX 4

Core FSI Indicators: Banking Sector- Earnings and Profitability

Return on Equity (%)

	2008	2009	2010	2011	2012	2013	2014
Bahamas	14.5	11.8	15.1	13.4	6.3	2.7	-8.1
Barbados	17.3	15.8	12.3	6.1	4.9	4.3	2.8
Belize	13.3	11.4	4.4	-5.6	-1.0	6.1	-0.1
ECCU	19.9	11.8	6.3	3.4	5.7	-4.4	0.7
Guyana	27.3	32.9	23.9	23.3	23.4	24.5	22.7
Haiti	21.7	18.3	18.4	22.2	21.9	21.9	n.a.
Jamaica	29.6	22.0	17.6	24.8	14.9	13.8	14.6
Suriname	40.5	35.3	29.1	25.1	24.8	21.8	20.3
Trinidad & Tobago	23.0	17.5	15.1	17.5	18.3	15.8	14.0
Regional Weighted Average	17.2	13.8	15.1	14.2	9.1	6.2	5.0

APPENDIX 5

Core FSI Indicators: Banking Sector- Liquidity

Liquid Assets to Total Assets (%)

	2008	2009	2010	2011	2012	2013	2014
Bahamas	12.8	15.9	18.7	19.7	20.2	21.8	24.2
Barbados	9.0	10.8	11.5	12.0	14.6	18.0	20.3
Belize	20.2	21.8	24.2	27.0	29.7	28.5	30.0
ECCU	22.2	22.2	20.0	22.9	24.6	26.6	30.3
Guyana	29.8	30.5	30.0	31.1	31.6	29.6	31.5
Haiti	44.8	46.9	51.1	49.5	45.5	41.6	n.a.
Jamaica	22.1	24.0	27.0	23.7	22.2	23.6	28.2
Suriname	32.6	29.8	29.2	26.4	28.4	29.3	30.9
Trinidad & Tobago	21.1	24.1	22.9	26.7	24.7	26.8	25.1
Regional Weighted Average	15.3	18.2	20.3	21.5	21.7	23.4	25.6

APPENDIX 6

Core Financial Soundness Indicators for Deposit Takers in Selected Developing Countries, 2013/2014

Core FSIs	Algeria (Q2)	Bhutan (Q2)	Brunei (Q2)	Colombia (Q3)	El Salvador (Q3)	Mauritius (Q2)	Average
Regulatory Capital to Risk-Weighted Assets	23.4	20.5	19.3	17.1	16.8	17.8	19.2
Regulatory Tier I Capital to Risk-Weighted Assets	17.3	15.6	19.8	12.1	13.9	15.3	16.3
Non-Performing Loans Net of Provisions to Capital	16.2	31.4	5.9	-6.1	-2.0	12.4	4.7
Non-Performing Loans to Total Gross Loans	11.5	15.5	4.9	3.1	2.4	4.5	5.3
Non-Financial Sector Loans to Total Loans	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Return on Assets	2.0	0.0	1.5	2.9	1.3	1.4	1.9
Return on Equity	23.3	-0.2	12.5	19.8	9.8	15.9	15.8
Interest Margin to Gross Income	67.2	85.8	78.6	61.6	77.0	68.0	79.4
Non-Interest Expenses to Gross Income	33.2	34.3	47.9	44.6	57.1	41.7	44.8
Liquid Assets to Total Assets	45.9	22.3	51.7	9.3	23.4	19.5	28.6
Liquid Assets to Short-term Liabilities	107.5	47.5	115.6	14.4	33.5	26.3	60.4
Net Open Position in Foreign Exchange to Capital	n.a.	1.4	14.8	13.5	100.0	3.8	20.5

Source: IMF Data Base on Financial Soundness Indicators.

APPENDIX 7

Core Financial Soundness Indicators for Selected Emerging Economy Deposit Takers, 2013/2014

Core FSIs	Argentina (Q2)	Brazil (Q2)	Chile (Q2)	India (Q2)	Indonesia (Q2)	Malaysia (Q2)	Mexico (N.A)	Average
Regulatory Capital to Risk-Weighted Assets	14.0	15.5	13.3	18.9	18.9	14.5	15.9	15.81
Regulatory Tier I Capital to Risk-Weighted Assets	13.0	12.2	10.0	17.7	17.7	12.9	13.8	12.28
Non-Performing Loans Net of Provisions to Capital	-2.9	-10.1	-1.5	6.1	6.1	7.5	-9.3	0.31
Non-Performing Loans to Total Gross Loans	2.0	2.9	2.2	2.1	2.1	1.8	2.4	2.35
Non-Financial Sector Loans to Total Loans	-	-	-	-	-	-	-	-
Return on Assets	7.0	1.3	1.8	0.8	2.9	1.6	1.8	2.0
Return on Equity	56.7	13.6	21.8	12.3	22.6	16.1	17.5	19.87
Interest Margin to Gross Income	32.9	73.8	68.6	69.1	68.0	60.5	71.9	63.64
Non-Interest Expenses to Gross Income	42.5	57.7	44.9	49.7	48.6	42.2	54.1	49.62
Liquid Assets to Total Assets	31.3	11.3	12.7	8.3	23.6	13.3	36.3	20.25
Liquid Assets to Short-term Liabilities	48.8	151.2	-	25.9	34.3	41.4	49.5	55.88
Net Open Position in Foreign Exchange to Capital	29.0	1.3	3.6	3.0	1.9	10.3	11.9	10.8

Source: IMF Data Warehouse on Financial Soundness Indicators.

The Caribbean Regional Financial Stability Report

This first edition of the Caribbean Regional Financial Stability Report represents the culmination of a long process of development and enhancement of the architecture for financial stability in CARICOM. This necessarily involved the upgrading of national financial stability systems, since the regional financial stability architecture is built on national structures. This report complements the national financial stability reports and its purpose is to sensitize the main regional financial stability stakeholders, including the regional public, of issues relevant to the stability of the financial system in the region. By reviewing the main sources of risks to the stability of the regional financial system, as well as the policy measures being used to deal with emerging risks, the report seeks to help build confidence and provide policymakers with guidance on the building blocks to defuse any financial tensions in the system.

This report is a product of a truly collaborative regional effort. The CARICOM Group of Central Bank Governors played a leading role with the close involvement of regional regulatory associations such as the Caribbean Group of Banking Supervisors (CGBS), Caribbean Association of Insurance Regulators (CAIR) and the Caribbean Group of Securities Regulators (CGSR). Additionally, the International Monetary Fund (IMF) made a significant contribution by collaborating with participating central banks on the interconnectedness map component of the project. The report also benefited from training organized with the assistance of the Caribbean Technical Assistance Centre (CARTAC). Very importantly, these developments were facilitated by funding from the Inter-American Development Bank (IADB) through a project on Financial Risk Assessment in the Caribbean, managed by the Caribbean Centre for Money and Finance (CCMF), a research institution funded by regional central banks and the University of the West Indies. It is expected that the production of this report will become an annual exercise, forming a permanent part of a modern Caribbean financial stability architecture.

UWI
ST. AUGUSTINE CAMPUS

Caribbean Centre for Money and Finance
The University of the West Indies
St Augustine, Trinidad and Tobago
www.ccmf-uwi.org
ccmf@sta.uwi.edu
(868) 645-1174 or (868) 224-3727

CARIBBEAN CENTRE
FOR MONEY & FINANCE