MONETARY AND FINANCIAL STABILITY: ISSUES FOR CARICOM ECONOMIES IN THE DOMESTIC SECTOR

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ABSTRACT

Monetary and financial stability are important contributors to economic growth and development. Instability of any kind has a negative impact on the economy as a whole, since it deters foreign investment and hinders economic growth. Thus, it is necessary for economies to not only focus on achieving economic stability, but to guard the economy against monetary and financial fragility by striving to achieve stability in all spheres of the country.

Realizing the important role that financial stability plays in promoting economic growth and development, this research seeks to highlight important issues for CARICOM countries with respect to achieving such stability. The main focus of this research is to examine indicators used by CARICOM countries to measure financial stability, along with the steps and challenges found in achieving stability. Financial stability analysis will focus on the new tools for assessing financial system soundness and the challenges that these will pose for financial regulators.

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1 The views expressed in this paper are those of the author and do not necessarily represent the Central Bank of The Bahamas. The paper should be considered a work in progress and as such the author would welcome any comments on the written text or any of the issues cited. The author would also like to thank all staff of the Research Department, especially Ms. Jamell Bodie for her valuable assistance.

1.0 Introduction

Views on the efficiency of monetary policy have changed substantially during the twentieth century. Over the years, much more attention has been devoted to devising appropriate monetary policy frameworks essentially to secure price stability in both developed and developing countries. This follows the increasingly widespread acceptance of the view that price stability fosters improved economic performance. Nevertheless, monetary policy frameworks are normally politically determined, and may well depend on the country's financial institutions, and the degree of expertise in monetary policy matters that exists both inside and outside the Central Bank, as well as other economic features. Moreover, since the late 1990s there has been a shift in focus with widespread attention on the soundness of the financial sector, prompted by financial crisis during the 1980s and 1990s. Financial soundness indicators have been increasingly utilized in financial system surveillance since instability in the financial system is viewed as a major threat to economic growth and development.

Economic growth and development can be examined with respect to the behaviour of monetary and financial stability indicators. The predictability of these indicators is an important pre-condition for sustainable economic growth and is necessary for the sound functioning of the market economy. With monetary stability, the result will be stable prices and low inflation, while financial stability will lead to a sound banking system. However, monetary and financial stability are not ends in themselves but means to achieving the ultimate objective of broad based economic prosperity. Thus, the means by which such stability is achieved are important issues that need to be addressed.

More specifically, financial stability seeks to highlight risks that are a threat to the soundness of the financial system, with the aim of devising appropriate policy responses. Further, financial stability relates to the absence of actual financial crises and to the ability of the financial system to limit, contain and deal with the emergence of imbalances before they constitute a threat to the economic process. In a well-functioning financial system the ability to maintain constancy occurs partially via self-corrective, market-disciplining mechanisms that create resilience and prevent problems from festering and developing into system wide risks. Hence, a financial system is in a range of steadiness once it is

capable of facilitating good economic performance and dissipating financial imbalances that arise as a result of noteworthy adverse and unanticipated events.[2]

Moreover, in the quest for monetary and financial stability the influence of international factors must be considered. For small open emerging economies, like CARICOM, with the encroachment of international financial forces on their domestic financial systems, policymakers are confronted with various challenges. In economies where there is a rapid flow of speculative capital across borders, national authorities are confronted with the challenge of managing the vulnerability in this financially liberalized era, which is featured in liquidity, interest and exchange rates volatility.

Hence, this paper seeks to explore financial stability issues in CARICOM economies and to highlight challenges in achieving such stability. Accordingly, Section One consists of an overview of the CARICOM economies; Sections Two and Three comprise the literature review and an analysis of selected macroeconomic and macro-prudential indicators respectively. Section Four addresses financial stability in the framework of effective banking supervision and the new tools for accessing financial system soundness; while section Five concludes the paper.

2.0 Overview of the CARICOM Economies

The countries of CARICOM are most accurately described as small developing territories with different exchange rate systems in place. Countries such as The Bahamas, Barbados, Belize and the Organization of Eastern Caribbean States (OECS) have embraced a fixed exchange rate regime since the 1970s, while countries such as Guyana, Jamaica and Trinidad & Tobago have adopted the floating exchange rate regime. Moreover, the CARICOM countries are import driven and highly dependent on foreign direct investment and external borrowing for their supply of foreign reserves. Agriculture, which was the dominant economic sector in colonial days, is still a significant export earner for some countries. Sugar is produced in significant quantities for exports in

2 See Garry Schinasi, (2004).

Barbados, Belize, Guyana, Jamaica, St. Kitts and Trinidad and Tobago and thus is a major foreign exchange earner for most of these countries. Additionally, Belize, Jamaica, Suriname and the Windward Islands grow bananas for export to the United Kingdom, while Guyana and Suriname are significant rice producers and exporters. In some countries, agriculture has been over taken by other economic sectors, such as tourism, which is now the most significant foreign exchange earner for countries such as The Bahamas, Barbados and Jamaica. Among the exceptions is Trinidad and Tobago, where the economy is dominated by oil and natural gas extraction and energy-based industries. Jamaica also has a considerable share in the processing and production of natural resources with its bauxite, despite set backs to the industry due to social and financial problems (*see Table 1*).

Table 1. Selected Economic Indicators for CARICOM Countries (2002)

Country	GDP Rate of Growth (%)	Tourism % of GDP	Financial Services % of GDP	Natural Re-sources % of GDP	Agri-culture % of GDP
Antigua & Barbuda	2.1	n.a.	10.9	2.0	3.5
Bahamas	4.7	40.0	15.0	n.a.	5.0
Barbados	-0.4	10.3	18.4	0.7	4.0
Belize	4.4	n.a.	7.2	0.5	18.8
Dominica	-4.7	n.a.	13.2	2.1	18.3
Grenada	-1.1	n.a.	11.8	0.6	9.6
Guyana	1.1	n.a.	5.2	10.9	29.3
Haiti	n.a.	n.a.	n.a.	n.a.	n.a.
Jamaica	1.1	n.a.	6.1	5.5	8.2
Montserrat	-2.8	n.a.	2.0	0.1	11.9
St. Kitts & Nevis	0.8	n.a.	5.6	0.3	13.0
Saint Lucia	0.1	n.a.	11.5	0.5	5.7
St Vincent & The Grenadines	-0.1	n.a.	11.8	0.3	9.7
Suriname	1.6	n.a.	n.a	n.a	n.a
Trinidad & Tobago	3.2	n.a.	n.a	n.a	n.a

Source: *CARICOM Website and Reports of the Various Central Banks.*

The financial services sector of a number of countries is growing. As a matter of fact, financial services is the number one foreign exchange earner and contributor to GDP for the Cayman Islands and ranks second for The Bahamas, Bermuda and Barbados. The landscape of the financial systems in most CARICOM countries is dominated by the domestic sector, as commercial banks are pervasive features in the financial sector of these countries. Commercial banks are the main source for funding household expenditure although finance companies, mortgage banks, insurance companies and credit unions have assumed a greater role in the last decade and a half. Most countries are dominated by foreign owned banks, particularly Canadian banks that entered the Caribbean market in the early 1950s. In almost all CARICOM countries, excluding Barbados where currently there is no indigenous bank, at least one locally owned institution exists, and represents institutions that have been amalgamated or consolidated over the last two decades. Commercial banks are generally characterized by high operating costs, a high degree of concentration with a few banks controlling large market shares, and a large number of branches that act as a deterrent for new market entrants.

While almost all countries have some degree of offshore services, in many countries these are insignificant. Only two member countries, namely The Bahamas and Barbados, have a flourishing offshore sector, representing in excess of 10% of GDP (*See Table 1*). Several associate member states have significant offshore sectors including the Cayman Islands, Bermuda, and the British Virgin Islands in descending order of magnitude in those countries. The offshore sector offers various products including international business company registration, banking, management of trusts and mutual funds, and in the case of Barbados, registration of US foreign sales corporations. The Cayman Islands and Bermuda have stock exchanges that are oriented to the offshore financial sector. However, most CARICOM countries have a stock exchange, which in most instances is dominated by the domestic sector. The stock exchanges have generally not experienced significant trade activity, since they are still at the rudimentary stage (*See Table 2*).

Table 2. The Composition of the Financial System in CARICOM Countries (2002)

Country	Commercial Banks	Offshore Banks	OLFIs	Securities/ Stock Exchange
Antigua & Barbuda	7	15	30	Yes
Bahamas	7	262	15**	Yes
Barbados	6	54	15	Yes
Belize	5	-	1	n.a.
Dominica	4	3	39	Yes
Grenada	3	15	48	Yes
Guyana	6	-	46	Yes
Haiti	n.a.	n.a.	n.a.	n.a.
Jamaica	6	-	9	Yes
Montserrat	2	11	10	Yes
St. Kitts & Nevis	6	1	19	Yes
Saint Lucia	6	1	52	Yes
St. Vincent & The Grenadines	4	10	27	Yes
Suriname	8	-	89	n.a.
Trinidad & Tobago	6	-	463	Yes
Cayman*	6	383	29	Yes

* CARICOM Associate Member.
** This number does not include Credit Unions and Insurance Companies.
Source: The Various Central Banks Reports.

Over the past five years, the offshore sector has received much attention from international regulatory agencies leading to several countries, including The Bahamas and a few OECS member states, being blacklisted by The Financial Action Task Force (FATF) and Organization for Economic Co-operation and Development (OECD) in 2000. Most of these countries have improved their regulatory framework and implemented measures to combat financial instability. In

the Bahamas nine new pieces of legislation have been enacted, among them is one that mandates banks to follow the know-your-customer requirement (KYC) and other anti-money laundering measures. The Central Bank has been given more authority to regulate banks. Included are enhanced powers of the Governor of the Central Bank to issue and revoke licences to carry on banking and/or trust business from within the country. The Bahamas has also established a Financial Intelligence Unit (FIU) for the receipt and analysis of suspicious transaction reports that banks have since been required to make. Further, in the Cayman Islands an array of legislative changes has been made to combat money laundering. Some of these include the March 2000 Code of Practice issued by the Governor in Council and the September 2000 Money Laundering Regulations (MLR), an extension of The Proceeds of Criminal Conduct Law, 1996.

3.0 Literature Review Monetary and Financial Stability

The achievement of monetary stability has been a primary focus for decades, with financial stability issues coming to the forefront in recent years. Michael Foot (2003) posited that a country/region have financial stability where there is monetary stability, where employment levels are close to the economy's natural rate, where there is confidence in the operation of the key financial institutions and markets in the economy and where there is no relative price movements of either real or financial assets within the economy that will undermine monetary stability. Therefore, financial instability is more likely during periods of bank failure and when the normal conduits for savings and borrowing in either the personal or corporate sectors are seriously malfunctioning. Such conditions mean that participants had lost confidence in financial intermediaries and economic growth was disrupted by the unavailability or relatively high cost of financial intermediation.

Moreover, authors such as Issing (2003) are cynical concerning the existence of a trade-off between monetary and financial stability. Based on the "*conventional view"*, inflation is regarded as one of the major factors creating financial instability and therefore, price stability is good for financial soundness. It is felt that inflation can worsen with the asymmetric information problem between lenders and borrowers. Further, it is said that high inflation volatility adds to the problem of

predicting real returns. Thus, stable prices and a monetary policy focus on that objective play an important role for stable financial markets.

Strong protagonists of the "*conventional view*"[3] claim that price stability is a nearly sufficient condition for financial stability, while the more conservative perspective states that price constancy may lead to financial stability. Nevertheless, price steadiness and financial stability tend to mutually buttress each other in the long run. The widespread view is supported by empirical evidence that many financial crises were caused by major shifts in the price level. Moreover, most banking crises tend to occur during recessions, which often follow periods of high inflation. Thus, the policy stance by Central Bankers to maintain price stability is said to be appropriate for the state of the financial system. Nevertheless, the conventional perception concludes that there is no general trade-off between monetary and financial stability.

Conversely, authors of the "*new environment*" hypothesis[4] argue that, low and stable inflation can make the financial system more vulnerable. Some reasons cited for this are that inflationary pressure might not show up in inflation itself for quite some time, due to the low pricing power of firms, positive supply side developments and well anchored inflation expectations. It has also been argued that central banks' focus on price constancy is insufficient and financial imbalances would have to be addressed directly. The direct response would involve trying to avoid, or at least subdue, the building up process of financial imbalances. Therefore, the "new environment" short-term conflict is one whereby financial imbalances are considered important enough to possibly constitute a long run threat to price stability. It does not imply however that the ultimate objective of monetary policy should not be price stability.

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3 See Bordo, Dueker and Wheelock, (2000).

4 See Otmar Issing, (2003).

Table 3 below shows the Financial Stability Forum's (FSF)[5] agreed list of best practice core standards in twelve important policy areas. Highlighted are macroeconomic fundamentals, institutional and market infrastructure, and financial regulation and supervision as the main pillars for achieving financial stability objective.

4.0 Tools for Assessing Stability

Structural, institutional and macroeconomic aspects of financial system stability have attracted much attention nationally and internationally. It has become increasingly important to strengthen the foundations of the domestic financial systems due to the magnitude and mobility of international capital flows and as a means of building resistance to capital flows volatility. The soundness of financial institutions is an essential part of the infrastructure for strong macroeconomic performance and effective monetary policy at the national level.

Macroeconomic indicators are commonly used to measure the health of the economy. Among the relevant macroeconomic indicators used to measure the overall production performance of the economy are data on aggregate and sectoral growth, trends in the balance of payments, the level and volatility of inflation, interest and exchange rates, the growth of credit and changes in asset prices, especially stock and real estate prices (*See Table A1 in the Appendix*). Note that these macroeconomic indicators are benchmarked against the Gross Domestic Product (GDP) and the level of reserves in order to achieve a clear assessment of stability within the economy. The selected macroeconomic indicators are generally used to test quantitatively the impact of changes in those variables on financial institutions' portfolios and on the aggregate solvency of the financial system.

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5 Financial Stability Forum is a meeting of senior representatives of national financial authorities, who through information exchange and international co-operation in financial supervision and surveillance, seeks to promote international financial stability.

Table 3. Twelve (12) Key Standards for Sound Financial Systems

Policy Area	Key Standards	Issued by
Mascroeconomic Fundamentals		
Monetary and Financial Policy Transparency	Code of Good Practice on Transparency in Monetary and Financial Policies	IMF
Fiscal Policy Transparency	Code of Good Practices in Fiscal Transparency	IMF
Data Dissemination	Special Data Dissemination Standard/ General Data Dissemination Sysem	IMF
Institutional and Market Infrastructure		
Insolvency	*	World Bank
Corporate Governance	Principles of Corporate Governance	OECD
Accounding	International Accounting Standards (IAS)	IASC
Auditing	International Standards on Auditing ISA)	IFAC
Payment and Settlement	Core Principles for Systemically Important Payment Systems	CPSS
Market Integrity	The Forty Recommendations of the Financial Action Task Force	FATF
Financial Regulation and Supervision		
Banking Supervision	Core Principles for Effective Banking Supervision	BCBS
Securities Regulation	Objectives and Principles of Securities Regulation	IOSCO
Insurance Supervision	Insurance Supervisory Principles	IAIS

Source: Financial Stability Forum, Bank of International Settlements.

On the other hand, macro-prudential indicators center on the banking systems' vulnerability to crisis.[6] Macro-prudential analysis has a different set of data requirements due to its focus on identifying risks emerging in the entire financial system. These indicators look mainly at capital adequacy, asset quality, management soundness, earnings and profitability, liquidity ratios, sensitivity to market risk and market-based indicators, all of which are currently referred to as Financial Soundness Indicators (FSIs).[7]

Moreover, FSIs are a new body of economic statistics that reflect an amalgam of influences. These are indicators of the current financial health and soundness of the financial institutions in a country and of their corporate and household counterparts. They include both aggregated individual institution data and indicators that are representative of the markets in which the financial institutions operate. FSIs are calculated and disseminated for the purpose of supporting macro-prudential analysis, with the objective of enhancing financial stability and limiting the likelihood of failure of the financial system.[8]

The FSIs are divided into core and encouraged sets (IMF Compilation Guide on Financial Soundness Indicators, 2003). The core set examines capital adequacy, asset quality, earnings and profitability, liquidity and sensitivity to market risk. On the other hand, the encouraged set deals with deposit-takers, other financial corporations, the non-financial corporate sector, households, market liquidity and real estate markets (*See Table 4*).

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6 See Hilbers, Krueger and Moretti, (2000).

7 See Evans, Leone, Gill and Hilbers, (2000).

8 See International Monetary Fund, "Compilation Guide on Financial Soundness Indicators", (2003).

Table 4. Financial Soundness Indicators: The Core and Encouraged Sets

Core Set	
Deposit-takers	
Capital Adequacy	Regulatory capital to risk-weighted assets Regulatory Tier 1 capital to risk-weighted assets
Asset Quality	Non-performing loans to total gross loans Non-performing loans net of provision to capital Sectoral distribution of loans to total loans Large exposures to capital
Earnings and Profitability	Return on assets Return on equity Interest margin to gross income Non-interest expenses to gross income
Liquidity	Liquid assets to total assets (liquid assets ratio) Liquid assets to short-term liabilities
Sensitivity to Market Risk	Duration of assets Duration of liabilities Net open position in foreign exchange to capital
Encouraged Set	
Deposit-takers	Capital to assets Geopolitical distribution of loans to total loans Gross asset position in financial derivatives to capital
Deposit-takers	Gross liability position in financial derivatives to capital Trade income to total income Prsonnel expenses to non-interest expenses Spread between highest and lowest interbank rate Customer deposits to total (non-interbank) loans Foreign currency-denominated liabilities to total liabilities Net open position in equities to capital
Other Financial Corporations	Assets to total financial system assets Assets to GDP

Table 4. Financial Soundness Indicators: The Core and Encouraged Sets - Cont'd

Encouraged Set	
Non-financial Corporate Sector	Total debt to equity Return on equity Earnings to interest and principal expenses Net foreign exchange exposure to equity Number of applications for protection from creditors
Households	Household debt on GDP Household debt service and principal payments to income
Market Liquidity	Average bid-ask spread in the securities market Average daily turnover ratio in the securities market
Real Estate Markets	Real estate prices Residential real estate loans to total loans Commercial real estate loans to total loans

Source: Compilation Guide on Financial Soundness Indicators, IMF, September 2003.

Macro-prudential analysis generally utilizes a number of stress-testing techniques to estimate financial systems' resistance to shocks (Hilbers, Krueger and Moretti, 2000). Stress testing aids in the forecast of future developments in macro-prudential indicators, using macroeconomic forecasts and observations on previous relationships between macroeconomic and prudential indicators. Nevertheless, the relevance of individual indicators may differ from country to country. Hence, assessments need to be based on an extensive set of indicators, taking into consideration the general structure and economic situation of a country and its financial system. Further, the assessment of the soundness of the financial system also requires the ability to couple the analysis of macro-prudential indicators with informed judgments on the adequacy of the institutional and regulatory frameworks.

5.0 Financial Stability - Issues for CARICOM Countries

5.1 Financial Stability In The Region

Weaknesses in a country's banking system can threaten financial stability domestically and internationally. The need to improve the strength of financial systems has attracted growing international concerns. Tools for assessing financial stability garnered significant importance following the financial crises of the eighties and nineties. As a result, numerous international bodies have been examining ways to strengthen financial stability globally and also ways to improve the types of surveillance and indicators used to assess financial stability within countries (*See Figure 1*).

Within a financial system, the role of banks is critical in that these deposit-takers provide a suitable location for the placement and borrowing of funds and are therefore, a vital source of liquid assets and funds to the rest of the economy.[9] Deposit-takers also provide payment services that are relied upon by all other entities for the conduct of their business. Consequently, failures of deposit-takers can have an adverse impact on the activities of all other financial and non-financial entities and on the confidence in, and the functioning of the financial system. Thus, analysis of the health and soundness of deposit-takers is essential to any appraisal of financial system stability.

Unlike the Mexican, Argentine, Asian, Russian and Brazilian economies, which experienced financial crises, the financial systems of Caribbean economies, with the exception of Jamaica, have been remarkably free of contagion. Some of the regional economies experienced periods of instability but they were related to domestic economic precariousness and the domestic market for foreign exchange, and did not coincide with financial instability in international markets. For Jamaica, the financial crisis was associated with rapid financial liberalization, which made it difficult for financial supervision to keep pace. Further, differentials in the reserve requirements for different types of financial institutions, with especially high requirements for banks, and tight

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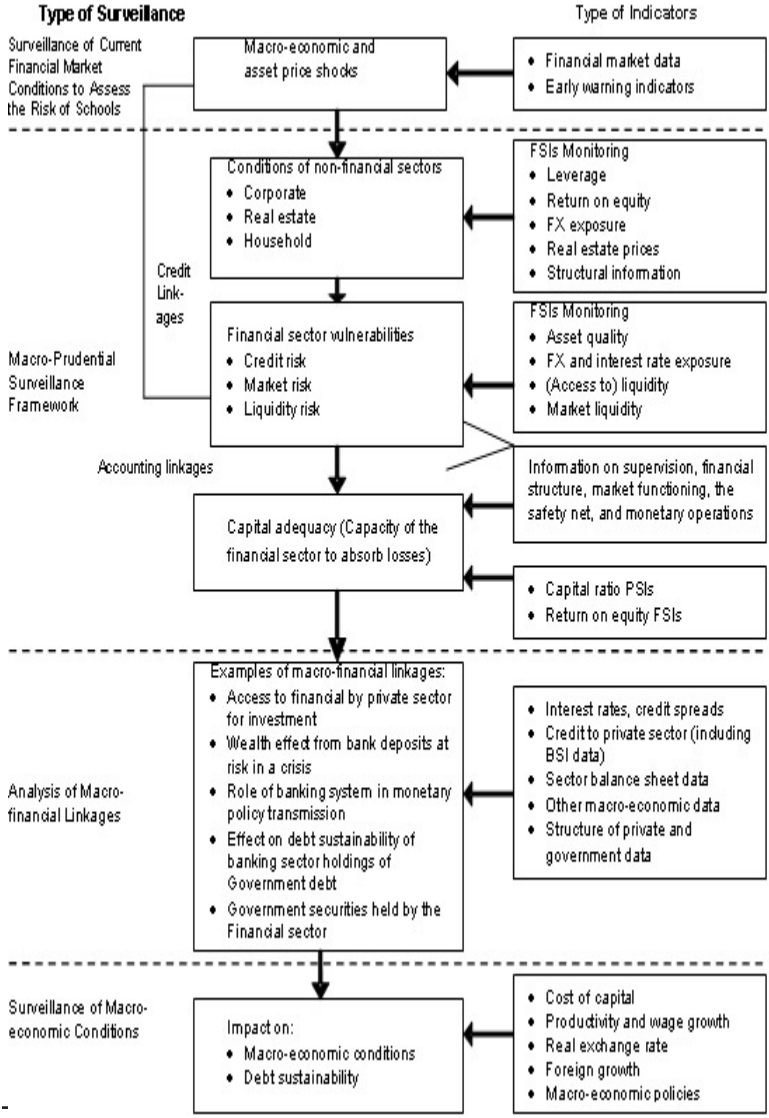
9 See IMF Compilation Guide on Financial Soundness Indicators, 2003.

Figure 1.
Analytic Framework for Financial Stability



Source: *IMF Compilation Guide on Financial Soundness Indicators,* Draft September, 2003.

monetary policies in 1995/1996, accompanied by high interest rates, which persisted at very high levels of inflation, also contributed to financial instability.

Otherwise, the regional economies' financial sectors have enjoyed relative stability and they continue to implement policies to secure that stability. The upgrade of legislation for domestic financial activities and the use of macro-prudential indicators that aided in the assessment of their banking systems' vulnerability to crisis have improved the resilience of the Caribbean financial system.

From 1992 to 1994, the regulatory framework for financial systems in the Caribbean was documented by the CARICOM Regional Supervision Harmonization Project (see Cherebin, 1994). It recorded legislation and bank supervision practices, and made recommendations for reform. These recommendations were used in ongoing upgrades of the regulatory framework and administration. Further, Caribbean regulators, working closely with the Caribbean Financial Action Task Force (CFATF), have taken a variety of measures to counter the use of the region's financial system for money laundering purposes (see Worrell, Cherebin and Polius-Mounsey, 2001). Countries have enacted anti-money laundering legislation, established financial intelligence agencies and have issued anti-money laundering guidelines to financial institutions. Meanwhile, in ongoing efforts to upgrade the regulatory framework, regulators and law enforcement agencies continue to work closely with the international Financial Action Task Force (FATF) and CFATF.

Caribbean regulators have also played a dynamic role in global efforts towards implementing the minimum standards recommended by the Basel Committee and other international agencies for strengthening supervisory systems and promoting soundness in the banking system.[10] Currently, financial stability assessment in the region is guided by the Basel Core Principles for Effective Bank Supervision (Basel I), which provides an extensive blueprint for an effective supervision system.[11] The Basel Committee developed a comprehensive set of twenty-five core

10 See Worrell, Cherebin and Polius-Mounsey, (2001).

principles as a reference point for effective bank supervision and these core principles are the evaluation tools used by all Central Banks in the region for appraising the soundness of the financial system.

According to the Basel I (April 1997), the twenty-five basic principles that need to be in place for a supervisory system to be effective include: preconditions for effective banking supervision (principle 1), licensing and structure (principles 2 to 5), prudential regulations and requirements (principles 6 to 15), methods of ongoing banking supervision (principles 16 to 20), information requirements (principle 21), formal powers of supervision (principle 22) and cross-border banking (principles 23 to 25).

For more than a decade all CARICOM countries have been actively amending and introducing new legislation to ensure adherence to these principles, along with other international banking standards, and continuous stability in their financial sectors. Onsite examinations have become an integral part of the supervision of banks in the Caribbean. These safety and soundness examinations cover a wide range of issues, particularly, the financial position of banks, the quality of credit being extended and corporate governance arrangements. Also, all Caribbean economies have either implemented or are implementing measures aimed at introducing deposit insurance as a requirement for their domestic banking system.

Further, there was the establishment of the Caribbean Group of Central Bank Supervisors (CGCBS), which has been working closely on the development of consolidated banking supervision within the region. Notably, all these measures were taken to preserve the current stability of the financial sector. However, with continuous steps being taken to minimize the negative consequences of risk-taking by financial institutions, there have been proposals for the upgrading of the current methods of assessment of financial institutions and the implementation of new methods. The latest developments relate to the New Basel II Accord and the Financial Soundness Indicators.

The original Basel I Accord was a landmark event; however, the expressed view is that over time it has become less and less reflective

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11 See Bank for International Settlement Core Principle for Effective Banking Supervision, (1997).

of the risks of the largest organizations and accordingly, has become less and less integral to the ongoing supervision of them.[12] Some of the shortcomings cited for Basel I relate to it not being successful in identifying differing credit quality within the same broad asset type, variation in the capital charge with the credit exposure's legal form (such as whether it is on or off balance sheet) and its simplistic approach to risk transference and credit risk mitigation (Rutledge 2005).

Moreover, it has been posited that Basel I was not structured to keep pace with the rapid rate of financial innovation that has been observed in international active banks. This has created incentives for capital arbitrage, with banks able to structure transactions with the key goal of minimizing regulatory requirements without a commensurate decline in risk. Likewise, it is said to have resulted in distortions in bank activity by the creation of a tax on certain activities and the under-estimation the risk for others.

Consequently, it is the view that these shortcomings combined have made the regulatory capital metric less informative to investors, supervisors and counterparties. Further, it is the view that the principle of adequate risk-based capitalization that the Basel I Accord was designed to promote has been eroded by these limitations (Rutledge 2005). The lack of sensitivity, coupled with incentives for arbitrage are reasons cited for the reduced relevance of Basel I in the supervision of the leading banks, resulting in the development of the New Basel II Accord and the proposed IMF's Financial Soundness Indicators as new tools for assessing the banking system soundness. These new tools however, would present some challenges for CARICOM countries as these advanced methods of assessment require a lot more data collection and analysis than is currently conducted by developing countries in general.

12 See Rutledge, (2005).

5.2 Financial Stability - New Basel II Accord Issue

The implementation of the new internationally agreed upon bank capital requirement, known as The Basel II Accord,[13] promotes the adoption of stronger risk management practices by the banking industry, through focusing on more risk-sensitive capital requirements which are conceptually sound and which pay due regard to particular features of the present supervisory and accounting system in individual countries. The 'New Accord' is supposed to link risk-taking to capital adequacy in a meaningful and consistent way. Its systemic quantification of risk is expected to give market participants new tools for viewing banks' capital positions. However, the calculation of risk-sensitive capital requirement is not commonly done in the region and would therefore require supervisors with a higher degree of knowledge, skill and experience. Consequently, many countries, including those within the CARICOM region, feel that the new standard is complex and expensive to implement.

Implementation of Basel II is through three Pillars[14] and will prove challenging for the Caribbean. Pillar one relates to *minimum capital adequacy* and requires a vast amount of empirical work for the calculation of credit risk, operational risk and market risk, which are all part of calculating the minimum capital requirements. For most countries in the region, if not all, no empirical work is done with regard to credit risk coefficients. An enormous amount of empirical work is normally conducted by the G-10 countries but not by the developing economies. Hence, within the region this would necessitate training and investment in the relevant computer programs.

The New Capital Accord has provided countries with over sixty (60) options for implementation at national discretion. However, countries in the region that serve as host jurisdiction for the developed countries, would need to follow closely what positions are being taken by these

13 Bank for International Settlement, International Convergence for Capital Measurement and Capital Standards: A Revised Framework, (2004).

14 *Ibid.*

countries. The reason is that, countries might adopt different approaches, thus forcing the CARICOM countries, especially those with subsidiary banks, to learn all approaches of the New Accord, as the parent offices of some subsidiaries may adopt the more advanced approaches.

Further, even the outright application of the standardized approach might prove challenging for some CARICOM countries. The standardized approach involves the use of rating agencies to determine the risk weighting for assets. Therefore, this would require that the Central Banks in the region review rating agencies for over 40 countries to determine if they meet the Basel criteria, an exercise which can prove costly and time consuming.

The implementation of Pillar two, s*upervisory review process*, on the other hand, is not expected to pose much of a challenge since banking legislation in the region already permits the Inspector to require a licensee to augment its capital. According to Basel II however, supervisors should regularly review the process by which banks self-assess their capital adequacy, in terms of the level and quality of capital held in relation to their risk positions. Therefore, a more in-depth review of capital adequacy will now be required during the examination process. Central Banks will have to assess via on-site examination, the system and records by which licensees routinely monitor their capital adequacy between report dates. Thus, strengthening of this policy and increasing transparency are issues that the region would have to examine.

For Pillar three, *market discipline*, the emphasis is on the disclosure of both quantitative and qualitative information of banks' activities by shareholders, depositors and other market participants. Implementation of this pillar will be an added cost to the banks due to more frequent disclosures. Disclosures will have to be semi-annual for all public licensees and quarterly for large retail banks. Moreover, if the disclosures are to be credible then it will necessitate checking or auditing by banks' external auditors. Along with the extra cost to banks, there will also be resource and expertise considerations for local audit firms as certain disclosures are not currently made.

Nevertheless, the implementation of Basel II should help supervisors and market participants to better detect increases in risk within individual institutions and across the financial system through a more risk-sensitive capital measure. It also promises to reinforce and accelerate improvements in bank risk management globally, as well

as promote future innovations through its reliance on banks' internal methodologies.

5.3 Financial Stability - Financial Soundness Indicators Issue

In addition to the New Capital Accord (Basel II), the IMF has recently proposed in its financial sector assessment programme the use of Financial Soundness Indicators (FSIs) (*See Table 4*). The compilation of these FSIs are a new endeavour for CARICOM countries and because of the wide range of data sources that need to be drawn upon, this process can prove to be a complex task. For the Caribbean there are some *strategic issues*[15] that need to be addressed when considering the compilation of such data. Given the range of data sources that potentially need to be drawn upon, it is not likely for all data to be available in one agency, so the job of compiling FSI data will certainly involve numerous agencies. However, the FSI Guide recommends that one agency be given the primary responsibility for calculation and dissemination of FSIs. Once the lead agency has been determined, the strategic decision will be whether to establish a unit in the lead agency that focuses specifically on the FSI data-set or whether an existing unit should add this task to its workload.

Furthermore, for most FSI-related series, legal backing for data collection is required and this is absent from most CARICOM countries. Adequate legal backing provides the statistical agency with the necessary support to encourage the private sector to report the required data. Moreover, stiff penalties for non-compliance and proper enforcement of the laws are also factors to be considered. Penalties for non-compliance should be harsh enough to affect any institutions which do not comply and should be strongly enforced.

In addition to strategic issues, there are a number of *managerial issues* pertaining to the implementation of work on FSIs. Most important is the coordination with other agencies, development of work schedules and consultation with both data suppliers and users. As data for compiling

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15 See International Monetary Fund, "Compilation Guide on Financial Soundness Indicators", (2003).

FSIs are likely to be supplied by different agencies, a number of management challenges would arise. For instance, procedures are needed to ensure that the concepts used and data compiled by the different agencies are consistent, or at least reconcilable. To this end, the lead agency would need to develop expertise in the international guidance for compilation of FSIs, and also act as their guardian within the economy.

There are also *practical issues* of increased resource cost from collecting new data series. Collecting new data for compilation of FSIs could be an added burden to agencies that have to supply the data. Hence, in determining the need to collect new data, authorities should make a judgment as to the likely impact and importance of the additional data series for compiling and monitoring FSI data.

5.4 Financial Stability - Stress Testing Issue

An approach different from, but complementary to using FSIs is aggregate stress testing.[16] Aggregate stress testing involves applying standardized shocks to deposit-takers' balance sheets and then aggregating the results across deposit-takers, to obtain the impact on the sector as a whole. Stress testing also provides a way to access certain types of risks that are hard to measure precisely using FSIs, including derivatives and off-balance sheet exposures. While FSIs allow more continuous monitoring of specific strengths and vulnerabilities over time, stress testing gives an estimate of the losses associated with these vulnerabilities from a one-time, plausible shock to the relevant macroeconomic risk factor.

However, stress testing is something new to the region. It is at its infancy stage and only a few CARICOM countries have thus far conducted their maiden tests: namely The ECCB, Jamaica and Trinidad & Tobago. Hence, this area requires further study and analysis by the regional economies, so as to integrate it with their current methods of assessment of the soundness of their financial systems.

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16 *Ibid.*

5.5 Financial Stability - Independence of Financial Regulators Issue

Financial regulators[17] need independence; as political interference in financial sector regulation and supervision contributed to the depth and magnitude of nearly all of the financial crises of the past decade.[18] Independence for financial regulatory agencies is very important, since an independent regulator can ensure that the rules of the regulatory game are applied consistently and objectively over time. If bankers know in advance that insolvent banks will be closed they will behave more prudently, thereby reducing the likelihood of a full-blown banking crisis. However, when politicians become directly involved in enforcing regulations, they may be influenced by other considerations in making their decisions.

Supervisory independence is also critical to enforcing rules, imposing sanctions and managing crises. To protect their integrity, supervisors should enjoy legal protection when carrying out their responsibilities so that they cannot be sued personally for their actions. Appropriate salaries should help agencies attract and retain competent staff and discourage bribe taking. Further, supervisors should be given sole authority to grant and revoke licences because they have the best view on the composition of supervised sectors.

Overall, in the interest of financial stability, much attention should be given to ensuring the autonomy of the supervisory agencies. The need to pursue the goal of independent and accountable regulators and supervisors in the interest of long-term financial stability is as great as ever.

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17 For CARICOM Countries, the Central Banks are the Financial Regulators.

18 See Das, Quintyn & Taylor, (2002).

6.0 Conclusion

With the process of globalization moving apace, and the development of a number of trading blocs setting the stage, CARICOM countries need to be proactive about the way forward. The regional economies are faced with new challenges that deserve careful attention and thought. Therefore, a framework which seeks ways of securing financial stability, on a sustained basis, through an appropriate distribution of responsibilities and a mutually supportive use of the instruments at their disposal is needed. Further, the pursuit of prudent fiscal policy measures should not be neglected since the achievement of both monetary and financial stability is connected to fiscal soundness.

For small open economies like CARICOM countries, with the encroachment of international financial forces on their domestic financial systems, it is necessary to keep pace with the latest developments in the financial sector. It is imperative to have a strong and secure financial system to aid effective monetary policy. Unnecessary volatility in financial markets can appreciably raise the cost of capital for business investment and negatively affect real economic advancement. Times past have proven that a fragile financial sector can considerably impede the monetary transmission mechanism when central banks are trying to stimulate the economy.[19]

With respect to the financial sector, The Basel II will no doubt help improve financial stability. The new framework will enable bank regulatory capital ratios to be more responsive to changes in risk and will foster additional disclosures by banks about their risk-management. Basel II will encourage banks to develop their systems to measure and manage risk as part of the investment needed to support strategic initiatives. The greater volatility in measured risk, combined with strategic capital planning, should encourage banks to maintain actual capital levels above regulatory minimums. However, the initial challenges, which include the development of qualified and experienced staff to oversee banks' adoption of the new framework, need to be overcome.

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19 See Bies (2005).

Similarly, the compilation and dissemination of FSIs would aid in macro-prudential analysis, that is, the monitoring of risks to the stability of the national financial systems arising from the collective behaviour of individual institutions. The magnitude and mobility of international capital flows have made it increasingly important to monitor the strength of financial systems and their resistance to capital flow volatility. The financial sector is often the conduit between global financial markets and domestic borrowers and, as such, is sensitive to external capital market conditions, as well as domestic developments. Thus, there is a need for the compilation of FSI data, but like Basel II, this would require a relatively high level of technically skilled staff at the compiling agencies.

Moreover, the financial system is only as strong as its governing practices, the financial soundness of its institutions, and the efficiency of its market infrastructure. Instilling and applying sound governance practices are a responsibility that should be shared by market participants and supervisors. Therefore, regulatory agencies in the Caribbean need to follow sound governance practices in their own operations. If not, they will lose the credibility and moral authority they need to be effective in their supervisory role, hence opening the door to moral hazard, unsound markets and practices and ultimately, financial crises.

Overall, prudential policies are the first line of defense against the build-up of imbalances, be they monetary or financial. Therefore, it is necessary for Caribbean countries to embrace all the financial system upgrades that are aimed at the achievement of financial stability, which in the end aids in economic growth and development.

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APPENDIX A

Table A1. Macroeconomic and Macro-Prudential Indicators

Aggregated Macro-prudential Indicators		Macroeconomic Indicators
Capital Adequacy	**Liquidity**	**Economic Growth**
Aggregate Capital Ratios	Central Bank credit to financial institutions	Aggregate growth rates
Frequency distribution of capital ratios	Deposits in relation to monetary aggregates	Sectoral Slumps
	Segmentation of inter-bank rates	
	Loan-to-deposit ratios Maturity structure of assets & liabilities	
	Measures of second-ary market liquidity	
Asset Quality	**Sensitivity to Market Risk**	**Balance of Payments and Debt**
Lending Institution	Foreign exchange risk	Current account deficit
Sectoral credit concentration	Interest rate risk	Current account deficit/GDP
Foreign-currency-denominated lending	Equity price risk	Import cover ratio
Non-performing loans and provisions	Commodity price risk	External Debt/GDP
Loans to public sector entities		Terms of Trade
Risk profile of assets		Composition and maturity of capital flows
Connected lending		
Leverage ratios		Cebt Service/GDP

Table A1. Macroeconomic and Macro-Prudential Indicators - Cont'd

Aggregated Macro-prudential Indicators		Macroeconomic Indicators
Asset Quality	**Sensitivity to Market Risk**	**Balance of Payments and Debt**
Borrowing Entity		External Debt Service/ Reserves
Debt-equity ratios		
Corporate profitability		
Other indicators of corporate conditions		
Household indebtedness		
Management Soundness	**Market-based Indicators**	**Inflation**
Expense ratios	Market prices of financial instruments	Volatility in inflation
Earnings per employee	Indicators of excess yields	
Growth in number of financial institutions	Credit ratings	
	Sovereign yield spreads	
Earnings and Profitability	**Market-based Indicators**	**Inflation**
Return on assets		Volatility in interest and exchange rates
Return on equity		Level of domestic real interest rates
Income and expense ratios		Spread between lending and deposit rates
Structural profitability indicators		

Table A1. Macroeconomic and Macro-Prudential Indicators- Concluded

Aggregated Macro-prudential Indicators		Macroeconomic Indicators
		Lending and Asset Price Booms
		Loan/Deposit ratio Excess Liquidity ratio
		Contagion Effects
	correlation	Financial market Trade spillovers. E.g. proportion of trade done with major trading partners
		Fiscal
		Fiscal Deficit/GDP Recurrent Revenue/GDP Recurrent Expenditure/ GDP Public Debt/GDP
		Other Factors
		Directed Lending and Investment Government Recourse to Banking System Arrears in the Economy

Source: Evans, Leone, Gill and Hilbers, 2000.