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Priorities for International Financial Reform, from a Caribbean Perspective

by
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1. Introduction

Caribbean IFCs have attracted the attention of the G-20 in the course of recent initiatives on global financial reform, even though, as in the crises of the mid-1990s, there is no evidence that IFC activity played any part in the transmission of international shocks. Furthermore, the global crisis has uncovered no systemic vulnerability in the Caribbean IFC sector. Our paper establishes the relative importance of Caribbean IFCs in the global context, both in terms of transactions volumes and interconnectedness. There is a clear need for a deeper understanding of international financial flows and inter-connectedness, and of the vulnerabilities to which the international financial system is subject as a result of cross border linkages. This will permit a more realistic view of the role and importance of IFCs in the global financial system, and a more appropriate focus for the priorities for international financial reform. Their IFCs play a vital role in the economic diversification of many Caribbean countries, but no significant vulnerabilities have emerged, either in respect of the international financial system or of their own domestic financial sectors and economies.

The domestic financial systems of Caribbean countries, which operate largely independently of their IFCs, are strongly interlinked among themselves and with globally active financial institutions. This is not a new phenomenon: international banks and insurance companies have been active in the Caribbean for many decades, and British and Canadian banks have a history in the Caribbean that goes back to the early years of the past century and even earlier. Because of this, the Caribbean places a high priority on improvement in the production and dissemination of data on cross-border exposures, and on the development of better methodologies for assessing vulnerabilities that may arise through these linkages.

Caribbean perspectives are informed by these two circumstances, and focus on (1) the importance of the Caribbean in the transmission of international shocks, and (2) the measurement and analysis of

cross-border risks. We need to establish whether any Caribbean country has a large enough connection to international markets to act as a conduit for the transmission of financial shocks throughout the international system. We will examine what tools we have to investigate this problem, and what we know about the importance of the Caribbean. We will identify priorities for data to facilitate further analysis of this issue. However, the more important issue for financial stability in the Caribbean is the analysis of cross-border and conglomerate risks. Almost all the systemically important Caribbean financial institutions operate across national borders, and it is therefore impossible to complete a comprehensive financial stability risk assessment without adequate analysis of conglomerate and cross-border risks. Our paper identifies the lacunae in data and methodologies for this analysis, and discusses initiatives for the way forward.

After a review of the literature, the next two sections of this paper focus on the Caribbean IFC sectors. Data on this sector is incomplete globally, and the activities of the IFCs, and the extent of their interconnectedness with major financial centres, are not well understood. Section 3 presents data on the relative size of Caribbean IFCs, and the extent of their interconnectedness with a selection of the world's most important financial centres. Section 4 is devoted to a discussion of the competitive advantages on which the Caribbean IFC services are based. Section 5 considers the domestic financial sectors of Caribbean countries, which are segregated from their IFCs, and assesses their vulnerabilities, which derive from individual country performance as well as regional and international connectedness. In Section 6 we suggest some Caribbean priorities for the reform of the international financial system.

2. Literature Review

The global financial system has undergone rapid changes in the last few decades as increasing globalisation and competitiveness have led to closer and deeper relationships being forged among the financial markets of the world. International capital flows, particularly cross-border lending and deposits, have increased substantially, with international claims today being 30 times those of the past 30 years (McGuire and Tarashev, 2007). McGuire and Tarashev track the growth in international banking activity since 2000, after the slowdown of the 1990s. The authors note that over the last 2 decades, the linkages between the United Kingdom and Euro area, as well as between the United States and the Caribbean were the largest bilateral linkages existing globally at the time. The International Monetary Fund (IMF) (2010) also points to a six-fold increase in countries' international claims and liabilities over the preceding 3 decades, and a parallel increase in financial interconnectedness amongst countries. Net cross-border bank lending expanded to over US$4 trillion in 2007, only to plunge financial crisis struck (Minoiu and Reyes, 2011).

Moreover, the interconnectedness of global financial systems has the potential to amplify perceptions of changes in risk profiles, in both directions. Minoiu and Reyes (2011) suggest that higher interconnectedness has the potential to lead to more sharing of risks and a reduction in contagion, but also it can have detrimental effects through "…a wider outreach of reverberations." Similarly, Cihak et al. (2011) point to benefits such as new funding and investment opportunities, leading to faster economic growth worldwide, as well as costs, where, as in the ongoing global financial crisis, disruptions to one economy are more easily transmitted to others. This has led to the identification of too-connected-to-fail (TCTF) risk. Chan-Lau (2010) defines this problem as the failure of one institution causing potential knock-on effects to other institutions, thereby leading to successive rounds of failures. Measures of this risk are exposures among firms in the form of direct (balance sheet claims on each other) linkages and indirect (derivative contracts and securities) linkages.

A number of recent papers have sought to measure and test interconnectedness. Schindler (2009) reviews a number of measures used to capture financial integration, classified as de jure (reflecting the extent of legal restrictions on cross-border financial flows) and de facto (reflecting a country's degree of financial integration) measures. Most de jure measures are based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). Prior to 1995, it summarized a country's openness to capital flows using a single binary variable, but the Report now comprises four variables which are popularly used to calculate indices of financial integration. As the de jure measures do not capture the effectiveness of controls on capital flows, de facto indicators are widely used to capture financial integration, include Lane and Milesi-Ferretti's (2007) database of external assets and liabilities estimated from the international investment positions (IIPs) of 145 countries.

More recently, network models have emerged as among the most popular tools for evaluating financial interconnectedness. Hattori and Suda (2007) and Cihak et al. (2011) use this framework to calculate various measures, including the level of connectivity within banking systems, the degree of centrality of individual countries to the global banking system, as well as the degree of clustering within the banking system. Both studies use the Bank for International Settlements' (BIS) international bilateral banking statistics and the former authors find that national financial systems have experienced greater interconnectedness and clustering over time. Connectivity has not been hindered by instabilities in international financial markets (e.g. Mexican peso crisis, East Asian Crisis), suggesting that increasing connectivity is not easily reversed. Cihak et al. (2011) investigated the relationship between interconnectedness and the probability of a banking crisis. They found a non-linear M-shaped relationship consistent with that in previous research, and explained that for banking systems with very little connectivity to the global system, increases in connectivity improve banking stability up to a point, after which the relationship is reversed. However, as the financial system continues to become more integrated into the global network, banking stability once again improves. Additionally, the authors found that the "dark side" of interconnectedness was of greater concern for those countries with net international liability positions compared to those holding mostly cross-border claims.

In contrast to Hattori and Suda (2007), Minoiu and Reyes (2011) found a relatively unstable banking network, using cross-border banking flows instead of claims, as in other studies. Their measures of network connectivity and centrality exhibited structural breaks as network density rose and fell after the cycle of capital flows, while countries' centrality tends to fall at the beginning and immediately after banking and sovereign debt crises. The recent global financial crisis is cited as an example.

Other papers have carried out stress tests of the global financial system using network analysis in an effort to identify trigger countries, and those most vulnerable to shocks originating elsewhere (see McGuire and Tarashev, 2007). The analysis also allows for the identification of the paths for the transmission of these shocks (Espinosa-Vega and Solé, 2010). The latter study uses a simple balance sheet approach, where credit and funding shocks directly affect a bank's capital, to simulate failures within a network of 18 countries reporting BIS Consolidated cross-country banking statistics. If a banking system's capital is not able to fully absorb any shocks, it fails and defaults on its liabilities with other countries. The ability of the creditors' capital to absorb this loss is evaluated and the process continues as before until the shocks are fully absorbed or the entire network fails. Because of the inclusion of data on risk transfers, the authors are able to track where risks remain after each round of defaults. Similar studies are reported by Chan-Lau (2010), and Degryse et al. (2010)

The importance of the UK and USA in the global financial arena is also borne out by various studies which identify these countries as being most central to the international financial network. Von Peter (2007) assesses the centrality of financial centres with large market share, and attempts to explain their size in international markets. He found that a large international banking centre may be not as central to the global network as some smaller jurisdictions, with the Cayman Islands for example ranking below some smaller centres in terms of its connectivity with other centres. Nevertheless, while the USA also exhibits similar characteristics in this study, the UK stands out as being the largest and most central banking centre, with Germany, France and Switzerland also emerging as being highly important to global connectivity. In fact, IMF (2010) highlights the concentrated nature of the global financial system by identifying eighteen key, large, complex financial institutions (LCFIs) through which the majority of global financial intermediation is conducted. As expected, these institutions are located in the USA (8), the UK (4), France (2), Switzerland (2), Germany (1) and the Netherlands (1). The IMF outlines these firms as "systemic players, measured by importance in global book running for bonds, structured finance…" and other securities, while also indicating that they are "…super spreaders of crisis and losses in stressful times..." accounting for over 50% of banks and insurance companies' reported losses in the 2007/2008 crisis.

Caribbean international financial centres (IFCSs) act mostly as conduits to receive and distribute funds to the rest of the world (IMF, 2010 and Lane and Milesi-Ferretti, 2010). As a result of the global crisis, banking external assets and liabilities and portfolio liabilities of IFCs declined with the sharp retrenchment in cross-border banking.

Although IFCs are often blamed for the events of the 2007/2008 crisis, Loomer and Maffini (2009) argue that this connection has never been fully explained. Structured investment vehicles (SIVs) and other off-balance sheet and off-budget vehicles at the heart of the crisis were located within some IFCs, but it is their off-balance sheet status, as well as the asset-liability management of firms which led to the problems associated with the global financial crisis and not their presence within IFCs (see also IMF, 2010 and Bank for International Settlements, 2010). Also, while international financial centres are among the financial trading partners of many advanced economies (Milesi-Ferretti et al., 2010 and Lane and Milesi-Ferretti, 2010), Caribbean IFCs such as the Bahamas and Bermuda are "…more collectors of funds for the clusters of off-shore centres…" (IMF, 2010). For example, Luxembourg provides financing to a number of major financial centres (UK, USA, Germany, Switzerland, etc.) but also receives funds from a major Caribbean financial centre, the Cayman Islands (IMF, 2010). Nevertheless, over 50% of global international financial centre transactions are conducted within the Caribbean (Gonzalez and Schipke, 2011) and the centres remain key liquidity providers to international markets. Worrell and Lowe (2011) outline the importance of the international business and financial services sectors to the Caribbean islands via increased employment, government revenues and total output, and show that, while the islands hold 60% of total external assets held by banks in international financial centres, the region's share of global financial assets is estimated to be at most 1%, with cross-border portfolio holdings between 1.5% and 2.0%.

It is only a selected number of smaller Caribbean countries that have important IFCs; however, cross-border and conglomerate financial structures are pervasive in domestic (non-IFC) financial activity throughout the region, and are a feature of all countries, to a greater or lesser extent. Worrell et al. (2001) describes the region's domestic system as being dominated by commercial banks with near-banks and other financial institutions playing a close secondary role in some territories (see also Panth et al., 2008). The international business and financial services sector of many islands has a volume of assets which greatly outstrips those of the onshore financial system, but institutions in the sector are

primarily prohibited from doing business with residents. Panth et al. (2008) indicate that the region's financial sectors are large relative to its economies, and account for over 150% of GDP. The domestic sector also accounts for 8% of annual output (more than the G7's 7%), with a key feature being the presence of large, long-established financial conglomerates (see also Worrell et al., 2001). This has led to a highly concentrated banking sector, as a series of mergers and acquisitions since the 1990s have led to three or four banks dominating the sectors' assets in many countries (Worrell et al., 2001). Securities markets also remain rather underdeveloped and illiquid (Panth et al., 2008; Worrell et al., 2001), with government securities dominating bond markets, while secondary markets are almost non-existent (Panth et al., 2008).

Because of the existence of primarily large foreign banks, closely linked via common ownership, Caribbean financial markets have experienced increasing regional financial integration (Panth et al., 2008; Espinoza and Kwon, 2009), while the integration of Caribbean financial sectors into the global market has surpassed that of lesser developed regions, but is still lower than the European and Asian regions (Espinoza and Kwon, 2009). Although Worrell and Jhinkoo (2008) argue that "…financial integration in the Caribbean is quite pervasive….", integration is at the level of individual institutions, and markets still remain relatively fragmented, with cross-border banking being less extensive than cross-border bank ownership. Also, foreign assets and liabilities of regional banks account for a higher proportion of assets than is the case in lesser developed regions, but are far less than in Europe. This may partially be as a result of regulatory restrictions on cross-border banking (Panth et al., 2008). Meanwhile, interest rates have seen some recent, yet limited, convergence, particularly among countries with fixed exchange rate pegs (Panth et al., 2008; Worrell and Jhinkoo, 2008) and, while stock markets are dominated by cross-listed stocks, these markets show little convergence, except in the case of Trinidad and Tobago and Jamaica (Panth et al., 2008; Worrell and Jhinkoo, 2008). Finally, Worrell and Jhinkoo (2008) point out that close geographical proximity seems to positively promote integration amongst individual islands, but warn that there do still exist some intraregional cross-border risks (including reputational risks) within the region, given asset and ownership links.

Data

Studies of financial interconnectedness have used a variety of data sources in many cases limited to datasets comprising 18 or 20 major industrial countries, and excluding the majority of small IFCs. The most comprehensive datasets include the Bank for International Settlements' (BIS) Locational and Consolidated Banking statistics; the IMF's Coordinated Portfolio Investment Survey (CPIS) and Coordinated Direct Investment Survey (CDIS); the Bank of England's bilateral banking statistics (which feeds into the BIS Banking Statistics; and the International Investment Positions reported by national authorities.

The Bank for International Settlements produces a number of datasets on international financial variables, including banking and securities data. The BIS Locational Banking Statistics is published quarterly and outlines the international claims and liabilities of locally and foreign-owned deposit taking corporations (excluding central banks) located within a particular country vis-à-vis non-residents, as well as claims and liabilities on residents denoted in foreign currencies. Assets and liabilities of banks are broken down into loans and deposits, international debt, and other claims and liabilities, including trustee business, while breakdowns are also available by currency and sectors, segregated by banks and non-banks. These variables are available on a bilateral basis with countries classified by region, or type (for example "offshore" centres), and in all only 41 jurisdictions report this information to the BIS. Despite this, the BIS suggests that "…the hub-like nature of international banking means that it is

sufficient to gather data from only a limited number of key international banking centers. In this way at least one side of most international banking relationships will be captured…." However, the Caribbean is only represented by 4 territories in this sample, with the Bahamas, Bermuda, Cayman Islands and the Netherlands Antilles the only ones captured, and coverage for other small IFCs is also quite limited.

The BIS Consolidated Banking Statistics however, capture the international claims and liabilities of banks ultimately owned in a jurisdiction, vis-à-vis non-residents and foreign currency claims and liabilities broken down by remaining maturity and sector of borrower. This dataset allows for a more detailed breakdown of the sectors as well as classifications of a bank's exposure by country of immediate borrower and to the country of ultimate risk. Banks also report separate data on cross-border claims as well as local claims of foreign affiliates in both foreign and local currencies. In all, only 30 countries report data to the BIS for the compilation of the dataset, with no Caribbean IFCs among them.

The IMF's CPIS data is a more comprehensive dataset which captures the year-end holdings of portfolio investments (equity as well as short- and long-term debt, but currently excluding financial derivatives), valued at market prices for 75 jurisdictions worldwide, cross-classified by the country of issuer of the securities. The survey covers portfolio investment assets of domestic residents, i.e. securities issued by non-residents and owned by residents (outward investment) while countries are also encouraged to submit data on investment liabilities, institutional sector of the holders of assets as further disaggregation of the instrument by country of residence, and currency breakdown of all portfolio assets. As well as capturing a greater number of countries, this dataset also has 17 Caribbean jurisdictions who report on the international portfolio liabilities only, and 6 others who report both claims and liabilities. Nevertheless, the dataset is not without its limitations. Particularly, because the collection of data is done based on capturing the first person to acquire a security as opposed to the current debtors and creditors of the investment, subsequent trades of assets will not be captured after the initial offering.

Additionally, the CDIS has been introduced in recent times, with one report for 2009 being issued so far and 2010's set to be released towards the end of 2011. This survey highlights both inward and outward bilateral flows of direct investment worldwide, and is based on the sixth edition of the Balance of Payments and International Investment Position Manual and the fourth edition of the OECD Benchmark Definition of Foreign Direct Investment. The OECD Benchmark Definition of Foreign Direct Investment (2008) defines direct investment as "a category of cross border investment made by a resident in one economy with the objective of establishing a lasting interest in an enterprise that is resident in an economy other than that of the direct investor." The "lasting interest" is said to be at least 10% of the voting power of the enterprise. Unfortunately while there is a relatively large representation of countries, of the 84 reporting jurisdictions, Barbados represents the only Caribbean presence on the 2009 survey. Also, unlike the BIS data (1977 – present) and CPIS data (1997, 2001 – 2009), the CDIS is in its initial stages and thus cannot currently provide a time series of data to analyse changes in global connectivity.

The issue of inadequate data for global financial surveillance has been the subject of the Financial Stability Board's data gap initiative entitled "The Financial Crisis and Information Gaps" which looks to improve the collection and sharing of financial data in a more timely, relevant and granular fashion. The initiative, endorsed by the countries of the G-20 in November 2009, made 20 recommendations for reducing gaps in data which can be used to enhance the push towards greater global financial stability. The initiative, in conjunction with the IMF, produced its second progress report in June 2011 (with another due in September 2012), outlining a number of developments, both progressive and

challenging, since the last progress report one year earlier. The 2011 report highlights that the recommendations have been met with broad agreement and positivity from national authorities in the G-20, particularly issues dealing with financial interconnectedness. The initiative has seen substantial progress in its core objectives of producing a reporting template for what will be classified as global systemically important financial institutions, as well as agreements to improve the granularity of BIS banking data and the frequency of CPIS information. Meanwhile, data reporting by G-20 countries in the areas of the Financial Soundness Indicators and International Investment Positions has improved, while databases on real estate prices and Credit Default Swaps, and public sector debt have been initiated by the BIS, the World Bank and the IMF. Efforts have reached advanced stages in developing various handbooks on the compilation and processing of statistics on securities and public debt.

However, areas of concern still exist, including that of data collection from the non-bank financial sector. Harmonizing data collection and reporting, as well as acquiring the necessary resources for poorer countries in order to improve their data collection have been touted as speed bumps on the journey to achieving the G-20's initiative. Some poorer countries have suggested a phased approach to implementation with the authorities in these countries encouraged to supply what is needed to ensure successful implementation of these recommendations. Finally, national consultations within the G-20 countries also revealed that confidentiality still remains a big legal issue and could also represent a stumbling block to implementation. The appropriate legislation to allow for the collection and sharing of more granular data would then be necessary to address this problem across countries. This may represent one of the biggest challenges for the initiative going forward.

The Caribbean has been involved with the FSB data initiative both directly and indirectly by constantly seeking to improve its data collection and dissemination procedures, while also providing its input on issues related to changes in capital adequacy data collection and issues regarding systemically important financial institutions.

Risk Exposure Through Interconnectedness

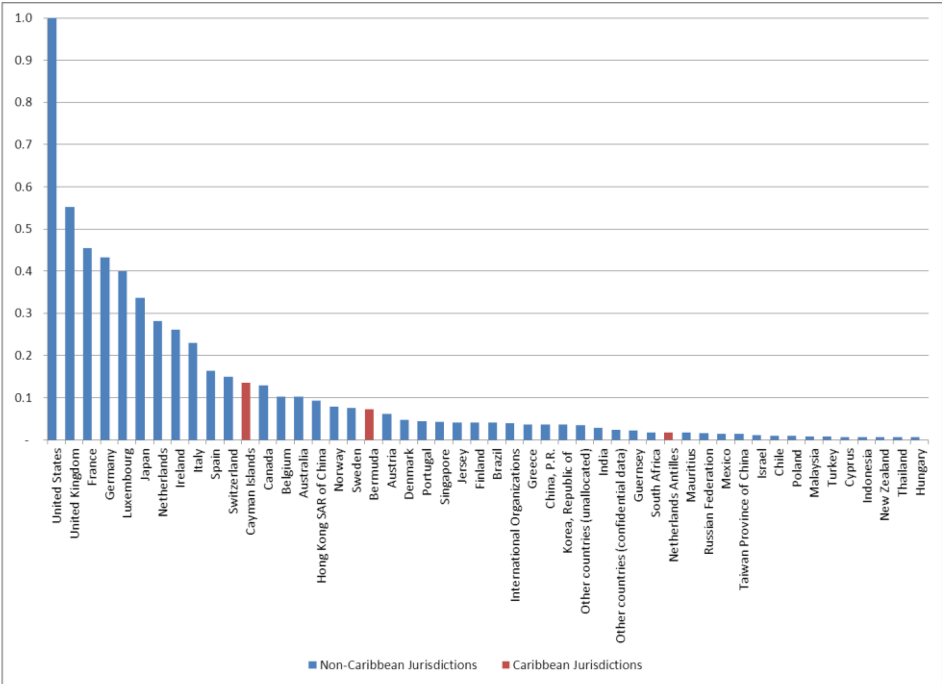
To carry out the analysis of the degree of interconnectedness of Caribbean IFCs within the global financial system, we use two of the methodologies outlined in Cihak et al. (2011) for calculating the degree of centrality and alter-based centrality which a financial system holds within a network of other systems. The first measure is simply calculated as the sum of a countries' international claims to its liabilities vis-à-vis other countries. We divide this measure by that of the US, the largest and most systemically important system worldwide. The alter-based centrality metric weights each bilateral claim of any country by the degree of centrality of the country whose security is held. This gives us an idea of how connected a country is to the more important financial centres of the world.

To construct these measures we use the IMF's CPIS international claims data, which offers the widest Caribbean coverage. For an original sample of 242 countries, Figures 1 and 2 illustrate the results of these calculations for the 50 most financially central countries in the global arena. As expected, the United States and the United Kingdom, spearheaded by major centres such as New York and London, are the 2 most central systems within the global network. France, Germany and the Netherlands also rank among the most important to global financial flows. However, as noted by Von Peter (2007), IFCs with large assets and size do not necessarily represent the most central to the global financial system, as the Cayman Islands, the 5th largest financial centre worldwide with US$1.7 trillion in assets, ranks 12th in terms of the degree of its centrality and 17th by the alter-based measure. Bermuda ranks 19th and 12th respectively, illustrated by its larger holdings of US and UK securities than those recorded by the Cayman

Islands. Apart from these two jurisdictions, only the Netherlands Antilles (36th and 41st) and Barbados (44th by the alter-based measure) appear in the top 50 countries.

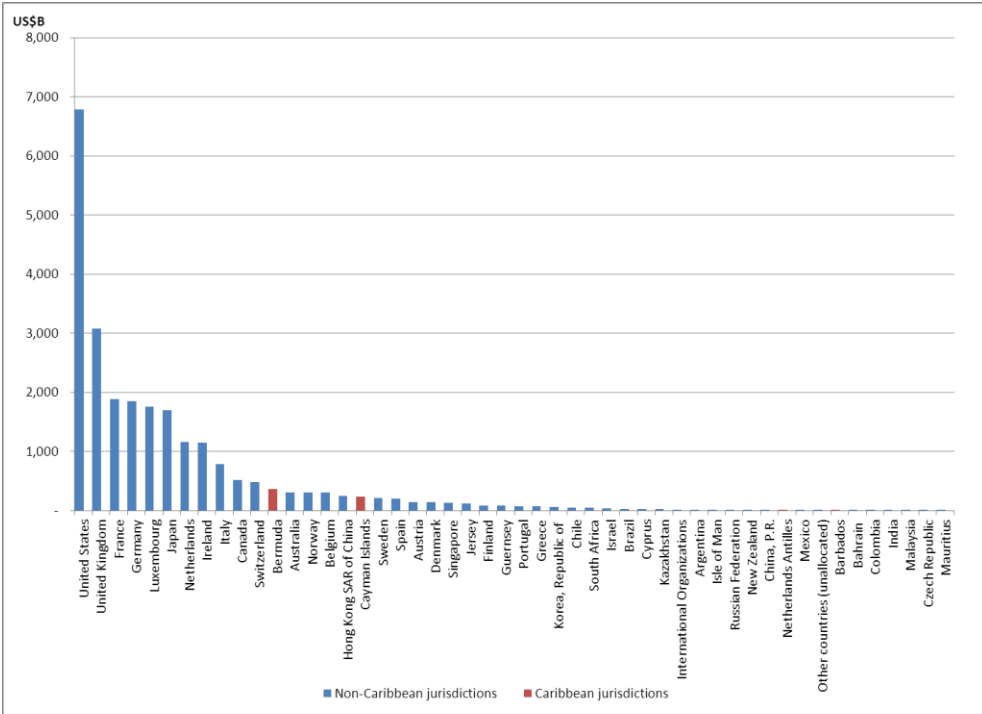
It must be noted however, that given that only 75 out of 242 countries report to the CPIS, there may be some countries that will rank lower than their real standing in the global economy suggests. This means that the rankings for the Caribbean IFCs reported here may represent higher positions in global finance that is the actual fact.

Figure 1: Degree of Centrality of 50 Most Financially Central Countries Worldwide: Degree of Centrality



Sources: IMF, CPIS

Figure 2: Degree of Centrality of 50 Most Financially Central Countries Worldwide: Alter-based Centrality



Sources: IMF, CPIS

4. Caribbean Financial Centres:

Caribbean international financial centres, while not being systemically important to the global financial system, are important to the domestic economies of these small jurisdictions. Worrell and Lowe (2011) cite the contribution of these centres to real Gross Domestic Product, employment (particularly those offering professional services), foreign exchange receipts, government revenues and high-end tourism arrivals and expenditure. In the British Virgin Islands, for example, the sector makes up over 60% of government's revenues, and it provides over 50% of corporate taxes in Barbados.

Caribbean IFCs offer a range of financial services at competitive global prices. Table 1 gives a snapshot of the various activities carried out in selected Caribbean IFCs. From the table, one can see that while the range of services is wide, the Caribbean has managed to create some niche areas for itself, including captive insurance and reinsurance, private banking and asset management, as well investment schemes comprising mostly hedge and mutual funds. The Global Financial Centres Index 10 report (September 2011) listed the British Virgin Islands, Bermuda and the Cayman Islands among 8 IFCs considered to be "Transnational specialists" or IFCs which, though not perceived as global financial centres, are

significantly connected to other IFCs and have specialist or niche areas of business, in which they have developed a significant depth.

Table 1: Financial Services Offered In Selected Caribbean IFCs

The Bahamas	Barbados	Bermuda	British Virgin Islands (BVI)	Cayman Islands
Euro-currency, Private Banking and Asset Management	Deposit taking banks, banks doing 3rd party business, Treasury group operations and High Net worth Individuals	Captive insurance and Reinsurance	Captive Insurance	Captive Insurance, Special Purpose Vehicles, Open Market Insurers
Securities and Mutual Funds	Captive and Exempt Insurance	Collective Investment Schemes (hedge funds, investment management)	Investment Business including mutual funds	Investment funds and securities including mutual funds
Company service providers including call centres	Company service providers		Trust and Corporate Service providers	

Sources: IMF, Central Bank of Barbados

Caribbean IFCs possess highly skilled and professional workforces, generally good infrastructure, a wide network of double taxation agreements (DTAs) and tax information exchange agreements (TIEAs) (see Table 2 for a list of countries who have signed such agreements), a location, time zone and language similar to that of major centres such as New York, London and Toronto as well as a long history of social and political stability (Worrell & Lowe, 2011). As Lane and Milesi-Ferretti (2010) and McGuire and Tarashev (2007) also show, Caribbean IFCs are more strongly linked with major centres like the USA and Hong Kong, than other small IFCS. IMF (2008) reports Caribbean IFCs having strong links to the USA, and European IFCs being closely tied with the United Kingdom and the Euro area. In addition, the Caribbean's wage levels are below those in other IFCs.

Table 2: Caribbean IFCs DTAs and TIEAs Signed as at October 6th, 2011

Jurisdiction	DTAs signed	TIEAs signed	Jurisdiction	DTAs signed	TIEAs signed
Anguilla	0 (0)	17 (17)	Dominica	10 (0)	10 (9)
Antigua & Barbuda	10 (0)	19 (19)	Grenada	12 (0)	15 (14)
Aruba	3 (0)	19 (18)	Jamaica	22 (1)	1 (0)
Bahamas	0 (0)	27 (26)	Montserrat	2 (1)	2 (2)
Barbados	32 (11)	1 (0)	St Kitts & Nevis	13 (2)	20 (20)
Belize	13 (0)	5 (5)	St Lucia	10 (0)	17 (17)
Bermuda	2 (1)	28 (26)	St Maarten	3 (0)	21 (20)
BVI	1 (0)	22 (21)	St Vincent & the Grenadines	10 (0)	21 (21)
Cayman Islands	1 (1)	23 (22)	Turks & Caicos Islands	0 (0)	16 (16)
Curacao	3 (0)	21 (21)			

Source: Global Forum on Transparency and Exchange of Information

The Caribbean also competes with its international peers on the basis of a strong financial regulatory environment, which continues to see upgrades as recommended by the IMF, the Global Forum on Transparency and Exchange of Information and other international and regional agencies. The region obtains technical assistance (TA) from a number of international sources, including the IMF, Commonwealth Secretariat, the United States Securities Exchange Commission (SEC) and the Toronto Centre (see Appendix). Caribbean centres have all been evaluated under the Financial Sector Assessment Programme (FSAP) of the IMF and World Bank and Reports on the Observance of Standards and Codes (ROSCs) have been completed for them. They have also undergone mutual evaluations of anti-money laundering frameworks through the Caribbean Financial Action Task Force (CFATF). Caribbean IFCs have been found to have generally adequate regulatory and supervisory frameworks, with upgrades to any deficient areas being continuously addressed and monitored by local policymakers (see Worrell and Lowe, 2011). The Caribbean has also gone through the peer review process initiated by the Global Forum on Transparency and Exchange of Information, with a number of countries having passed the Phase 1 review stage. Tables 3, 4 and 5 list those jurisdictions that have gone through the various programmes mentioned before.

Table 3: Caribbean FSSAs, ROSCs and Updates As At September 2011

Jurisdiction	Year of Evaluation(s)	Jurisdiction	Year of Evaluation(s)
Anguilla	2003	Cayman Islands	2005, 2009
Antigua & Barbuda	2004	Haiti	2008
Aruba	2008	Jamaica	2006
The Bahamas	2004	Montserrat	2003
Barbados	2003, 2007, 2009	St Vincent & the Grenadines	2004, 2010
Belize	2004	Turks & Caicos Islands	2005
Bermuda	2005, 2008	Trinidad & Tobago	2006
British Virgin Islands	2004, 2010	Organisation of Eastern Caribbean States (OECS)	2004, 2007

Source: IMF

Table 4: Caribbean Mutual Evaluation Reports for Anti-Money Laundering

Jurisdiction	Year of Evaluation	Jurisdiction	Year of Evaluation
Anguilla	2010	Grenada	2009
Antigua & Barbuda	2008	Guyana	2011
Aruba	2009	Haiti (World Bank)	2008
The Bahamas	2007	Jamaica	2005
Barbados	2008	Montserrat	2011
Belize	2011	St. Kitts & Nevis	2009
Bermuda (IMF)	2008	St. Lucia	2008
British Virgin Islands	2008	St. Vincent & the Grenadines	2010
Cayman Islands	2007	Suriname	2009
Dominica	2009	Turks & Caicos Islands	2008
Dominican Republic	2006	Trinidad & Tobago	2007

Source: CFATF

Table 5: Caribbean Peer Review Reports Adopted and Published by the Global Forum on Transparency and Exchange of Information

Jurisdiction	Year of Evaluation	Jurisdiction	Year of Evaluation
Anguilla	2011	Cayman Islands	2010
Antigua & Barbuda	2011	Curacao	2011
Aruba	2011	Jamaica	2010
The Bahamas	2011	St. Kitts & Nevis	2011
Barbados	2011	Turks & Caicos Islands	2011
Bermuda	2010	Trinidad & Tobago	2011
British Virgin Islands	2011		

Source: Global Forum on Transparency and Exchange of Information

The Caribbean region continues to receive competition from both traditional and non-traditional IFCs. The Global Financial Centres Index (GFCI), published by the Z/Yen Group, uses a combination of instrumental factors and financial centre assessments to provide ratings of financial centre competitiveness for 75 financial centres. The instrumental factors combine to explain a centre's competitiveness and are grouped into five areas, namely, people, business environment, infrastructure, market access and general competitiveness. These areas are captured using a number of already established external measures. The financial centre assessments are carried out by way of ongoing online questionnaires where international financial services professionals indicate their perceptions of centres with which they are familiar (see GFCI 10, September 2011 for full explanation of the methodology used).

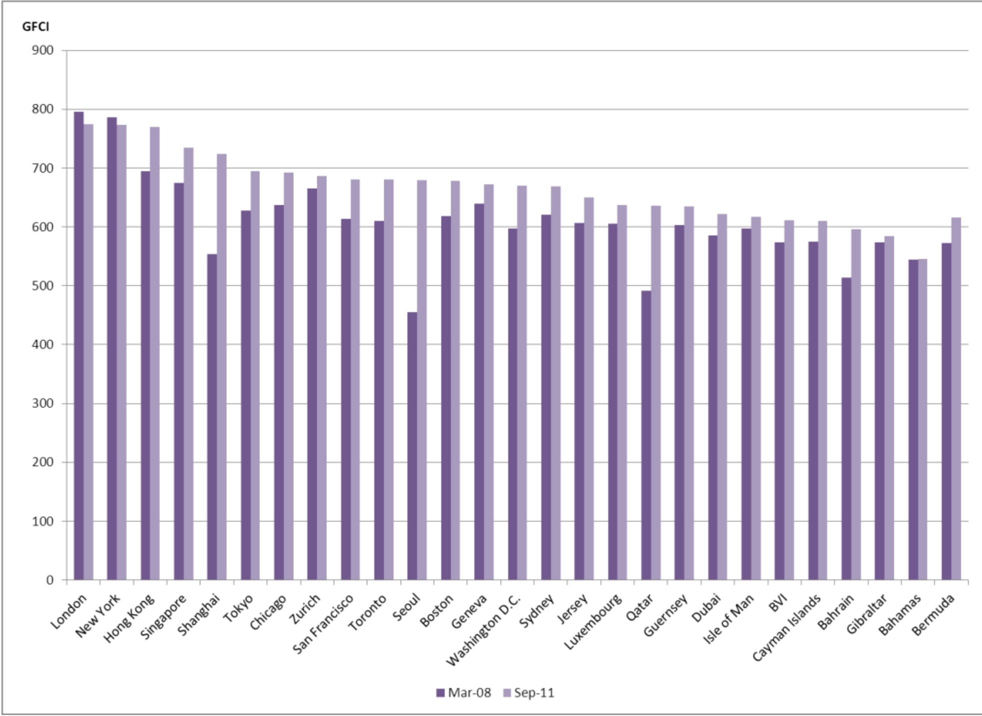
The September 2011 issue of the GFCI suggests that London, New York and Hong Kong are the three most competitive financial centres in the world, with the latter closing the gap on the former two in recent years. The report (and GFCI 9, March 2011) indicates that the relationships existing among these three centres are mutually beneficial, but London's status as the leading IFC may be under threat as the cost of living and high personal taxes remain a cause of concern for industry professionals.

The results of the most recent GFCI have indicated that "offshore centres have suffered significant reputational damage in the past three years…" (GFCI 10, September 2011). Nevertheless, these jurisdictions have begun to recover, as their important role in the global financial system (as well as their lack of input into the 2007/08 crisis) is increasingly being recognized. Figures 3, 4, 5 and 6 illustrate the Caribbean's competitiveness levels in comparison to the 15 current most competitive centres, other small IFCs, and some non-traditional competitors for global financial services. There is a clear indication that competitiveness levels for financial centres have been increasing over the last years. New York and London have maintained their status as leaders but have seen declines since the very first GFCI was published in March 2007 and the rest of the world has closed the gap on them.

Within the group of small IFCs, Jersey and Guernsey continue to top the list in terms of competitiveness (with the former now considered a Global specialist in the international financial system) as they become more diversified centres (GFCI 10, September 2011). Figure shows that while the Caribbean IFCs have been becoming increasingly competitive (with the exception of the Bahamas which has remained virtually unchanged) they have not closed the gap with other small IFCs, such as the Isle of Man.

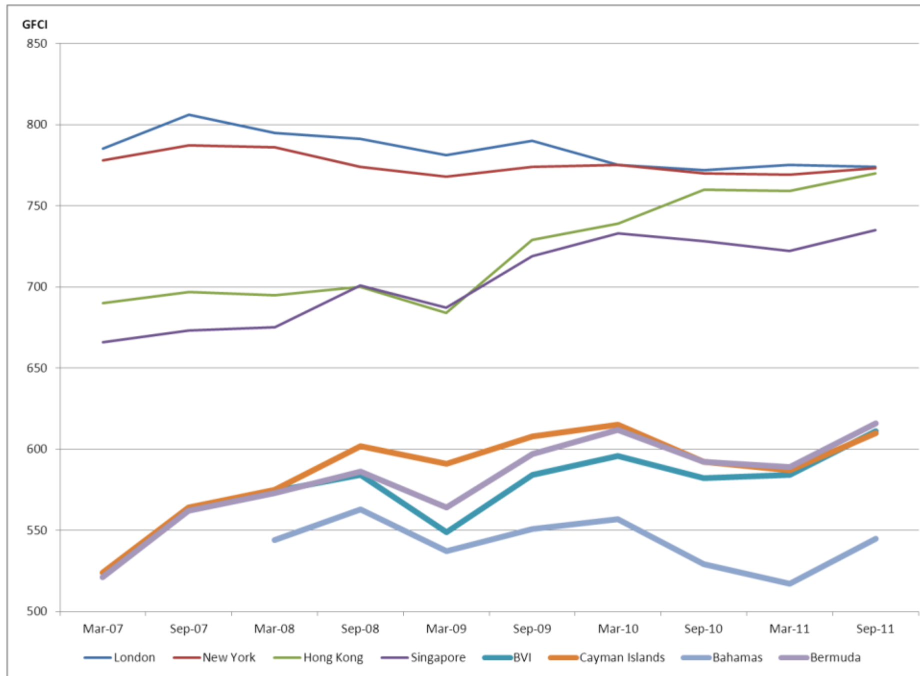
In relation to non-traditional and emerging financial centres, Qatar, Dubai and to some extent Bahrain have made up significant ground on the Caribbean, and Qatar has surpassed the four Caribbean IFCs represented in this sample. Qatar ranked below the Cayman Islands, the Bahamas, British Virgin Islands and Bermuda prior to 2008. Since then, it has surpassed all of these nations (as well as Dubai), and is now considered to be a Transnational specialist in global finance (along with the Cayman Islands, British Virgin Islands and Bermuda).

Figure 3: Comparison of IFC Competitiveness – March 2008 and September 2011



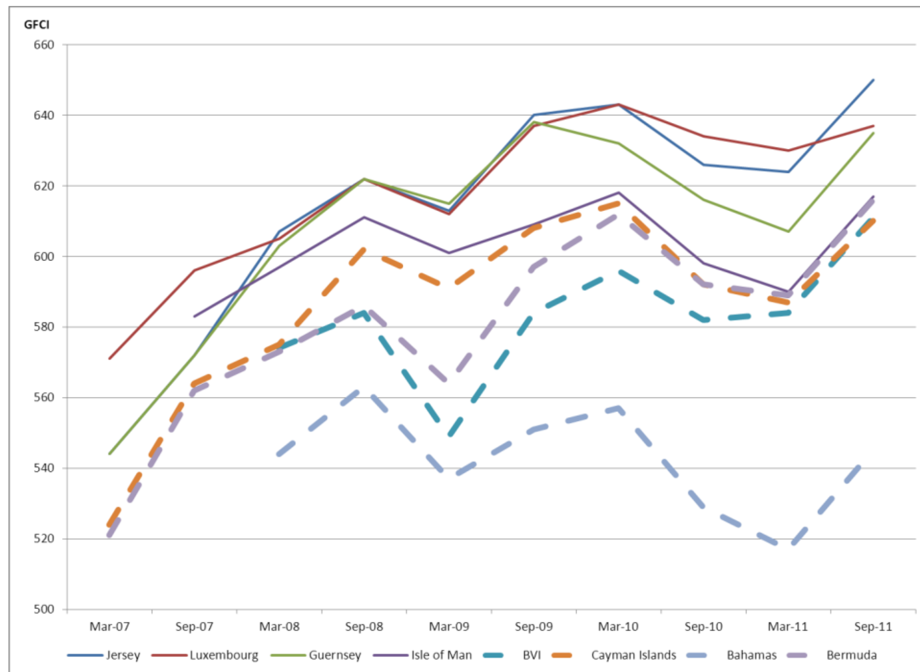
Source: Global Financial Centres Indices 3 – 10

Figure 4: Comparison of IFC Competitiveness – Caribbean vs. Major IFCs



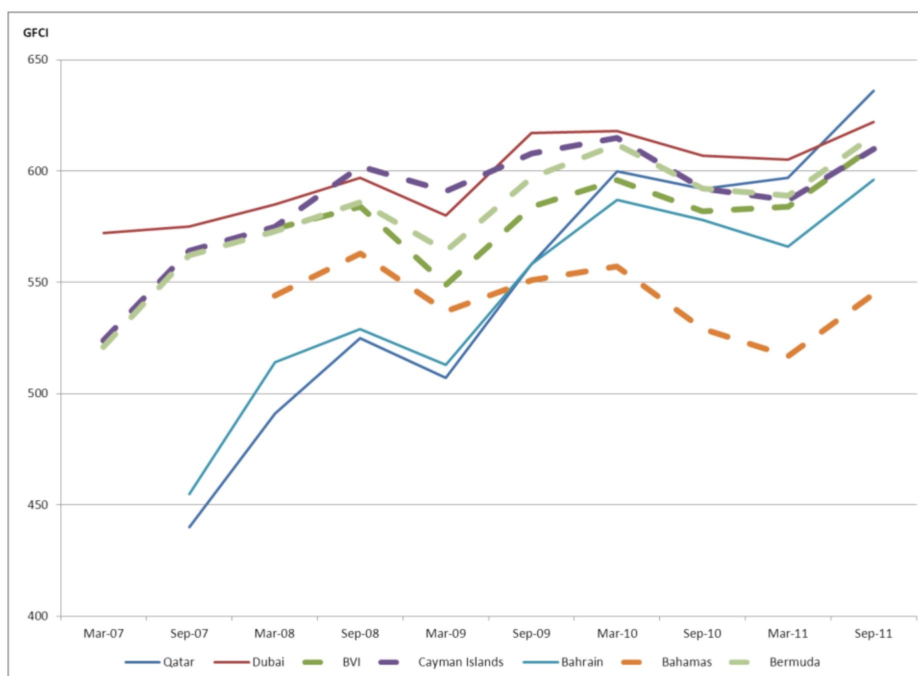
Source: Global Financial Centres Indices 1 – 10

Figure 5: Comparison of IFC Competitiveness – Caribbean vs. Other Small IFCs



Source: Global Financial Centres Indices 1 – 10

Figure 6: Comparison of IFC Competitiveness – Caribbean vs. Non-Traditional Centres



Source: Global Financial Centres Indices 1 – 10

The Caribbean has the challenge of maintaining its competitive edge in light of the reputational risks which small IFCs have been facing, as well as the improved infrastructural, regulatory and institutional improvements which others have been making to effectively compete globally. In addition, US states such as Delaware, which the legal home to over 800,000 registered US corporations and international business companies, continue to present a competitive threat. Respondents to the GFCI 10 indicated that areas such as personal tax rates, fairness and predictability in regulation, a level playing field and ease of running a business are key changes which could improve a centre's competitive perception. They also suggested that rule of law/lack of corruption and a lack of government interference were among areas which could signal a centre's commitment to financial services. Caribbean IFCs have begun to make the necessary changes to remain in compliance with several initiatives in response to global financial reform, in order to secure a sustainable future in international business and financial services.

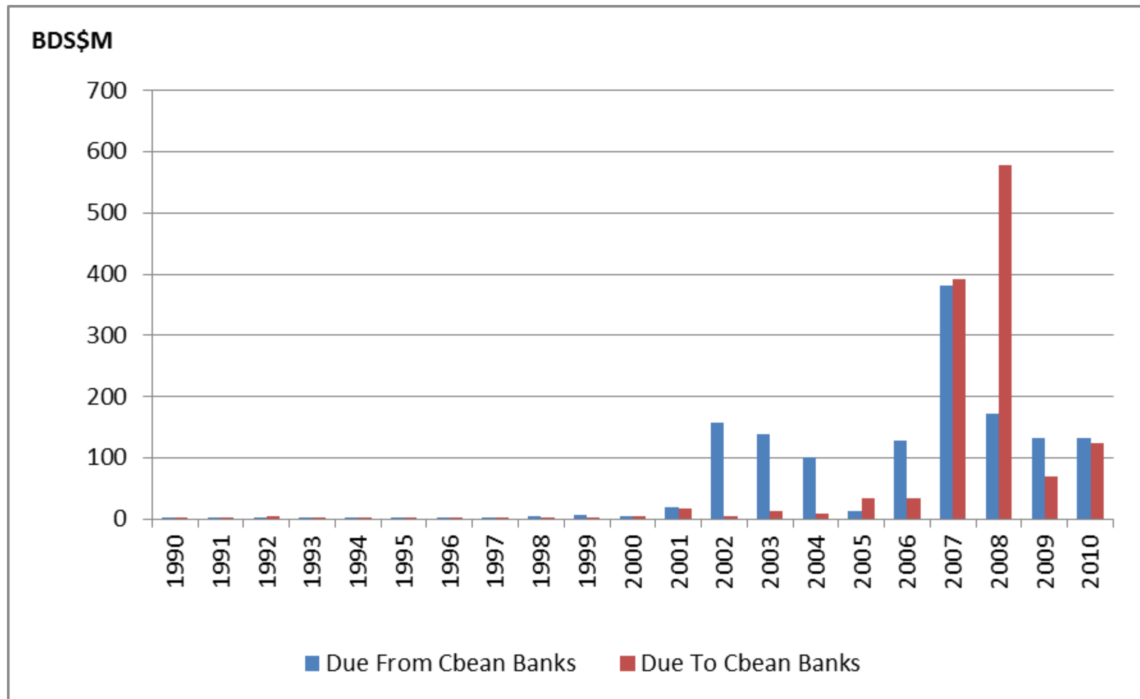
6. Financial Risk Assessment of the Caribbean Region: domestic financial sectors

Caribbean financial systems are quite large relative to rheir small economies, averaging around 150% of GDP. Domestic financial systems are well run and regulated, with legislation and supervisory practices that have largely kept pace with international standards of banking supervision. Caribbean systems are characterised primarily by large commercial banking conglomerates, mostly owned by Canadian parents which have had a Caribbean presence for many decades. Insurance companies account for a small but growing percentage of financial assets across the region. Finance companies and credit unions also play a small but expanding role in the domestic financial system. Securities exchanges exist in most

Caribbean countries, and arrangements are in place for cross listings between the exchanges of Barbados, Jamaica, Trinidad & Tobago and the Eastern Caribbean Currency Union. However, few companies are listed, little trading is done, and new issues are rare, and the contribution that the exchanges make to the mobilization and allocation of finance is of no importance.

Caribbean financial systems have become more integrated over the past decade. In the case of Barbados, during the 1990s commercial banks' deposits with and from their regional counterparts averaged less than BDS$3.5 million (US$1.75 million, see Figure 7). However, with the advent of the new millennium, ownership changes, all involving banks with a presence in the rest of the Caribbean, led to a substantial increase in cross-border holdings amongst institutions, particularly in the mid-2000s. Since the 2007/08 crisis cross-border holdings have declined but they remain well above pre-21st century levels.

Figure 7: Balances Due From and To Banks In the Caribbean vis-à-vis Barbadian Commercial Banks



Source: Central Bank of Barbados

Caribbean banking systems remain sound and well insulated from economic shocks, as highlighted by their Financial Soundness Indicators (FSIs) for 2008 and 2009 (see Table 6). Capital adequacy was comfortably above Basel recommendations of at least 8% of Risk-weighted assets in all countries, with a minimum of 10.1% in Suriname in 2008 and a maximum of 51.0% in St. Kitts and Nevis in 2009. However, non-performing loans have increased, because of the economic downturn affecting most territories. Banks also remained quite profitable over this period, although declining asset quality and investment yields, compounded by a decline in credit growth to key sectors of the economy, reduced the return on assets in most cases.

Table 6: Selected FSIs for Caribbean Domestic Banking Systems

	Capital Adequacy Ratio		**Non-performing Loans Ratio**		**Return on Assets**	
	2008	**2009**	**2008**	**2009**	**2008**	**2009**
Antigua & Barbuda	16.5	18.7	14.2	7.8	2.2	1.6
Aruba	14.7	17.9	6.9	7.8	3.0	2.6
Bahamas	23.5	26.1	6.1	9.4	-	-
Barbados	16.1	17.5	3.5	7.2	1.4	1.6
Belize	-	-	-	-	-	-
Dominica	15.8	14.3	7.1	5.5	0.4	3.3
Dominican Republic	13.4	14.5	3.5	4.0	2.1	1.9
Grenada	15.1	15.9	3.5	5.9	1.9	0.7
Guyana	14.9	18.3	9.5	8.3	2.3	2.7
Haiti	-	11.7	-	8.6	-	1.0
Jamaica	-	18.9	-	4.6	-	0.6
St Kitts & Nevis	47.0	51.0	-	-	4.7	2.1
St Lucia	15.6	20.8	6.6	8.3	3.2	0.5
St Vincent & the Grenadines	17.9	-	3.9	-	2.0	-
Suriname	10.1	10.4	7.9	8.5	2.8	1.9
Trinidad & Tobago	18.8	20.5	1.0	3.4	3.5	2.7
OECS/ECCU	-	-	7.6	7.5	2.6	2.1

Source: International Monetary Fund and Regional Central Banks

In Barbados, stress tests confirm the banking system to be very resilient to most macroeconomic and market-based shocks. Asset quality has deteriorated somewhat, as a result of the impact of recession on the tourism industry. The insurance industry has continued to be very profitable, remained some area of concern due to a lack of adequate supervision, but the sector has contracted as a result of the failure of a large regional insurance company. A financial services commission was established in April 2011 to supervise all domestic and international financial institutions other than those in the banking sector. (See Central Bank of Barbados, *Financial Stability Report December 2011*, forthcoming.)

Jamaica's financial system was found to be deep and well developed, with regulatory standards in line with international best practice and high capital adequacy, providing adequate resilience against adverse economic shocks, based on stress test results. However the economic environment within the country was deemed to be risky, with high levels of public debt, to which financial institutions are all exposed, and weak economic growth. As in most Caribbean countries, domestic financial institutions are all linked via large conglomerate structures. Non-performing loans have increased, and a recent Jamaican Government debt exchange programme reduced interest margins and banks' profits. However, the banking system remaains well-capitalised and profitable. Jamaica was not much affected by the insolvency of a large regional insurance company, and the insurance industry continued to grow, with robust solvency ratios. However, the insurance and pension sectors appear vulnerable to adverse movements in equity prices. (See Bank of Jamaica, *Financial Stability Report 2010*.)

The Trinidadian financial sector has been found to possess large capital buffers. Non-performing loans have remained relatively low, at 3.9% for 2010, and capital adequacy is more than twice the recommended 8% regulatory minimum (at around 20% of risk-weighted assets). Non-bank financial institutions reported some decline in asset quality, but despite the insolvency of a large insurance company headquartered in Trinidad, the insurance sector continued to experience growth, with statutory fund and solvency measures in excess of regulatory stipulations. (See Central Bank of Trinidad and Tobago, *Financial Stability Report June 2011*.)

The Guyanese financial system is potentially vulnerable to large exposures to individual borrowers and investments in other CARICOM sovereign securities, but domestic contagion risks are limited, given limited balance sheet linkages. However, banks' portfolios and ownership are highly concentrated. Credit remains low relative to other revenue-yielding assets on banks' balance sheets, but credit risk is intensified by low recovery rates on delinquent loans. Guyanese commercial banks have continued to build up significant levels of regulatory capital, levels of liquidity are high, and NPLs are declining.

7. Caribbean Priorities for International Financial Reform

The reform of the international financial system must be guided by principles of equity and transparency, and full account must be taken of the interests of the entire international financial community, including small economies such as the Caribbean. The reforms must not inhibit international competition, or limit market entry or exit to any country which is certified to have in place acceptable standards of regulation and supervision. All countries that wish to do so should have an opportunity to contribute to the formulation and upgrade of international financial regulation, so that reforms benefit from a full perspective of circumstances and experiences, of countries around the globe. Reform initiatives that are fully informed have the best chance of successful implementation, and are our best insurance against the unintended consequences of regulatory innovations. Unintended consequences were arguably among the major causes of the global financial crisis.

The process of certification of regulatory standards for financial systems must be firmly grounded in the FSAP. The FSAP is comprehensive and its oversight by the IMF and World Bank ensures a measure of consistency and provides a mechanism for quality control. A great deal of research has been devoted to the improvement of the methodologies used in the FSAP, and those investigations are ongoing. Some FSAP methodologies for adherence to standards and codes, for example, appear to lack consistency across countries, with identical laws and procedures being scored differently by different assessment teams. Work needs to be done to make the methodology of assessment more robust.

The IMF and World Bank are best equipped to continue their leading role in the development of methodologies of assessment, but all countries should be encouraged to participate actively in all stages of this process, as their interests and resources permit. The IMF's collaboration with central banks and research institutes of advanced countries is well known, but Fund economists have also collaborated with Caribbean economists in research and publication on financial sector issues, and they regularly attend conferences and seminars in the region, where national, regional and international finance is on the agenda. This kind of international research collaboration should be encouraged and expanded, to involve all countries in the work of strengthening international regulatory standards.

Tailored Financial Sector Assessments

The recognition by the Financial Stability Board that the priorities for financial reform are not the same for all countries, and that the assessment of financial oversight should be tailored to the structure, circumstances and systemic risk exposures of each country is a welcome development ([Reference]). A uniform approach across all countries carries the risk of misdiagnosis and misplaced emphasis for the reform effort. In addition, methodologies for financial risk analysis are not equally well developed for all financial markets and activities. In general, the banking sector is well ahead of other financial sub-sectors in this regard, and the assessment of cross-border exposures lags behind the techniques available for within-country analysis. Where, as in the Caribbean, financial systems are very open, the conventional approach may result in inadequate attention to cross-border issues in financial systems assessments, compared with the time and effort countries are required to devote to domestic credit quality.

There should be a good marriage of quality control of assessments of the regulatory framework, and selectivity in the priority assigned to various elements of the framework. In this way regulators have an incentive to attend to the regulatory reforms in areas where there is significant exposure, without wasting resources on areas where there is little activity.

The Assessment of Cross-border Risks

There is as yet insufficient data and analysis for an adequate assessment of global interconnectedness and the associated risks. The joint initiative of the IMF and FSB has made progress, but it is slow. The effort is hampered by the fact that the methodologies for the assessment are young and in an early stage of development, and there are also the perennial problems of confidentiality of needed data. In the Caribbean, an initiative for an assessment of the financial stability of the region got underway in August this year. All these initiatives are yet to produce results, and until they do we will not have a sufficient measure of the risk on international financial stability, whatever other actions are undertaken by the international community.

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Appendix

Sources of financial TA for the Caribbean

1. IMF
2. CARTAC
3. OSFI
4. ASBA
5. US: Fed, OCC, FDIC
6. CEMLA
7. Commonwealth Secretariat
8. Bank of England
9. The Toronto Centre
10. The Financial Sector Reform and Strengthening (FIRST) Initiative
11. Central Banking Publications UK
12. United States SEC
13. International Finance Corporation (IFC)
14. European Union