CARIBBEAN REGIONAL FINANCIAL STABILITY REPORT

2022/2023

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PREFACE

This edition of the Regional Financial Stability Report (RFSR) covers 2022 and 2023, a period characterised by a global economy in transition. The global economy is shifting from high growth in 2021 to slower growth in 2022 and 2023, driven by monetary policy tightening and rising geopolitical tensions. Economic growth in the Caribbean accelerated further in 2022 from the strong rebound in 2021 as countries continued to open up after the COVID-19 restrictions, as repressed tourism demand surged and as commodity prices increased. Regional growth moderated in 2023 as global growth softened, partly driven by increased policy rates to deal with inflationary pressures. Commodity prices also fell from the highs in 2022, which reduced growth among commodity-based producers in the Region. High debt burdens and other pre-existing structural weaknesses also continued to restrain regional growth.

In this environment, risks to the Caribbean's financial stability remained weighted on the downside and unevenly distributed, as some sectors and countries are disproportionately impacted by global economic challenges and idiosyncratic problems of their own. There is also a growing interconnectedness between sovereigns, households, non-financial corporations and financial institutions. This RFSR therefore focuses on the impact of the current global economic policy transition from supportive to consolidation, emerging risks to financial stability in this environment and structural weaknesses that could pose problems for the maintenance of financial stability in the Region. This Report also highlights the policies deployed by the monetary and regulatory authorities in the Caribbean during 2022 and 2023 to deal with emerging risks to financial stability in the Region.

The 2022/2023 RFSR, therefore, covers several areas that are required for a comprehensive financial risk assessment for the Caribbean financial system. Chapter 1 provides an overview of the international and regional macro-prudential developments which impact regional financial stability. The performance of financial institutions within the Region is discussed in Chapter 2, with a focus on key financial soundness indicators for commercial banks and insurance companies and the implications of these indicators for regional financial stability. Chapter 3 provides an update on the stress testing frameworks employed within the Region and assesses the Caribbean banking sector's potential credit, interest rate, foreign exchange and liquidity risks flowing from the major shocks that impacted the Region in the review period. Chapter 4 considers several important issues regarding regional systemic risks, such as regional credit to GDP gaps, regional systemic risks, systemically important financial institutions (SIFIs) and cross-border banking system exposures. Finally, Chapter 5 discusses policy initiatives for the support and maintenance of financial stability as the region adjusts to an international environment moving past the existential threat posed by the COVID 19 pandemic to a period characterised by new challenges such as rising geopolitical risks, the weakening of the established multilateral framework, exponential changes in the technological frontier and intensifying climate change related risks.

The RFSR provides a panoramic and comprehensive view of financial stability across the Region. The RFSR is prepared under the guidance of the Regional Financial Stability Coordination Council (RFSCC), established by the CARICOM Committee of Central Bank Governors.

EXECUTIVE SUMMARY

The Region's financial system remained resilient in 2022 and 2023 as the global economy transitioned from an accommodative policy regime to one focused on consolidation. The environment was characterised by policy tightening, rising geopolitical tensions and geoeconomic fragmentation, as well as idiosyncratic structural weaknesses in many Caribbean countries. The overall strength and resilience of the financial system in the Caribbean was underpinned by resilience built up over time in areas such as asset quality, capital adequacy and liquidity. Most importantly, the continual reform and strengthening of the regional financial stability architecture, particularly those reforms introduced in the wake of the financial crisis in 2007/2008 and the CL Financial crisis in 2009, were key factors in the continued resilience of the regional financial system.

The main risks to regional financial stability in 2022 and 2023 included the following:

1. The growing dominance of financial conglomerates in the Caribbean has led to the amplification of concentration risks, and this, coupled with growing interconnectedness, implies that the risk of contagion is elevated. This risk is being mitigated by the strengthening of the regulatory architecture in place for these entities, but this must be continuously upgraded to effectively manage their increasing centrality to regional financial stability;
2. High sovereign debt overhangs and the financial system's relatively high exposure to sovereigns have been driven by the relatively large footprint of the state in the economy, which was accentuated by the need for sovereigns to fund pandemic support measures;
3. Elevated geopolitical risks and geoeconomic fragmentation are increasing the macroprudential pressure in economies already dealing with pre-existing structural rigidities;
4. The escalation of the use of digital technologies in the financial sector has increased the Region's exposure to cyber risks and cyberattacks;
5. Elevated climate risks in the form of the increased frequency and intensity of adverse weather events.

Banks and insurance companies generally continued to exhibit resilience over the review period despite a challenging environment. A review of the financial stability indicators for banks revealed that asset quality generally improved over the review period, as the ratio of non-performing loans to total loans declined from 6.9 per cent in 2021 to 5.1 per cent in 2023. This significant improvement was driven by both service and commodity-based economies. This is a positive development when viewed in the context of the fears that there would have been a sharp decline in asset quality once the pandemic support measures were removed.

Profitability in the banking sector also recorded strong improvements; the regional weighted average return on assets (ROA) rose from 1.7 per cent in 2021 to 2.2 per cent and further to 3.0 per cent in 2023. The service-based economies also outperformed their commodity-based counterparts in this area, reversing an entrenched medium-term trend. Liquidity indicators improved as well during the review period, driven by the service-based economies. The average regional capital adequacy ratio (CAR) remained significantly above the regulatory minimum during the review period. The average regional CAR increased from 18.6 per cent in 2021 to 20.5 per cent in 2022 and 2023. It is important to note also that these regional averages can mask problems in individual jurisdictions, and the fact that the lowest capital adequacy ratio (CAR) regionally was 12.4 per cent in 2021 indicated that at least one jurisdiction was uncomfortably close to the regulatory minimum. A major shock may have been able to push their CAR below that regulatory benchmark. Very importantly, the lowest CAR in the region in 2023 increased to 14.8 per cent, indicating significant improvements in this area even among those jurisdictions that may have been at the lower end of the spectrum. Liquidity in the regional banking sector has remained relatively high in the review period. The liquid assets to total assets ratio for commercial banks increased from 26.4 per cent in 2021 to 29.3 per cent in 2022, moderating a little to 28.0 per cent in 2023. These trends were driven by credit growth dynamics, higher deposit growth in service-based economies and higher central bank credit to governments in some service-based economies.

In terms of the insurance sub-sector, both life and non-life companies remained highly capitalised, with the level of capitalisation increasing for both classes of insurance companies over the review period. In terms of profitability, however, there was a decline amongst life insurance companies both on a return on assets (ROA) and return on equity (ROE) basis among commodity-based economies. There are also issues with the profitability of the non-life insurance sector, as the overall regional average improved on the strength of commodity-based economies, but profitability declined among service-based economies. Profitability, therefore, remains a concern, particularly in the life insurance sector of commodity-based economies and in the non-life sector of their service-based counterparts.

In 2022 and 2023, regional regulators continued to assess the resilience of their respective financial sectors to various extraordinary events, such as elevated risks from credit, market and liquidity events. Stress test coverage remained predominantly confined to the banking system, the sector that accounts for the most significant proportion of financial sector assets. While most jurisdictions reported that the banking sector remained resilient in the face of shocks, there appeared to be increased susceptibility to credit risks in some jurisdictions based on simulated large potential shocks. Nevertheless, the fact that asset quality has improved and capital adequacy ratios are, in most cases, relatively high indicates that the Region is in a relatively strong position to deal with credit risks.

The Region remains significantly interconnected both with regional counterparts and the rest of the world, with significant banking and funding exposures to North America in particular. Barbados, St. Lucia and Trinidad and Tobago appear to be the main nodes in the regional financial system because of the number of connections to other countries' financial systems. Despite the relatively high degree of reciprocity (66.7 per cent), which can amplify and/or prolong a regional financial crisis due to feedback effects, the densities of the networks were moderate at rates below 48 per cent. As a result, the financial contagion risk in the Caribbean region as a whole is considered modest.

The outlook for financial stability in the Region is complicated by the high levels of uncertainty underpinned by escalating geopolitical tension and geoeconomic fragmentation, high sovereign debt overhangs, vulnerability to climate change risks, rising cyber risks and significant levels of financial interconnectedness underpinned by the dominance of systemically important financial institutions (SIFIs) and regional financial conglomerates. In this environment, the challenges concerning profitability in the insurance sector may linger in some jurisdictions. Also, stress tests of the banking sector indicated that some jurisdictions may be susceptible to very large but plausible shocks, so enhanced monitoring may be advisable

The digitalisation of the financial services industry, which accelerated during the pandemic, has created a situation where electronic platforms are being rolled out and entrenched on an unprecedented scale. In this environment, cyber risks and cyberattacks are likely to escalate, and it is critical in this setting that regulated institutions and regulators ensure that appropriate cybersecurity protocols and systems are in place. The regulatory process, therefore, has to ensure that cybersecurity is an important dimension evaluated during the regulatory examination process. This process must ensure that cybersecurity governance systems at regulated institutions are fit for purpose and meet international best practices.

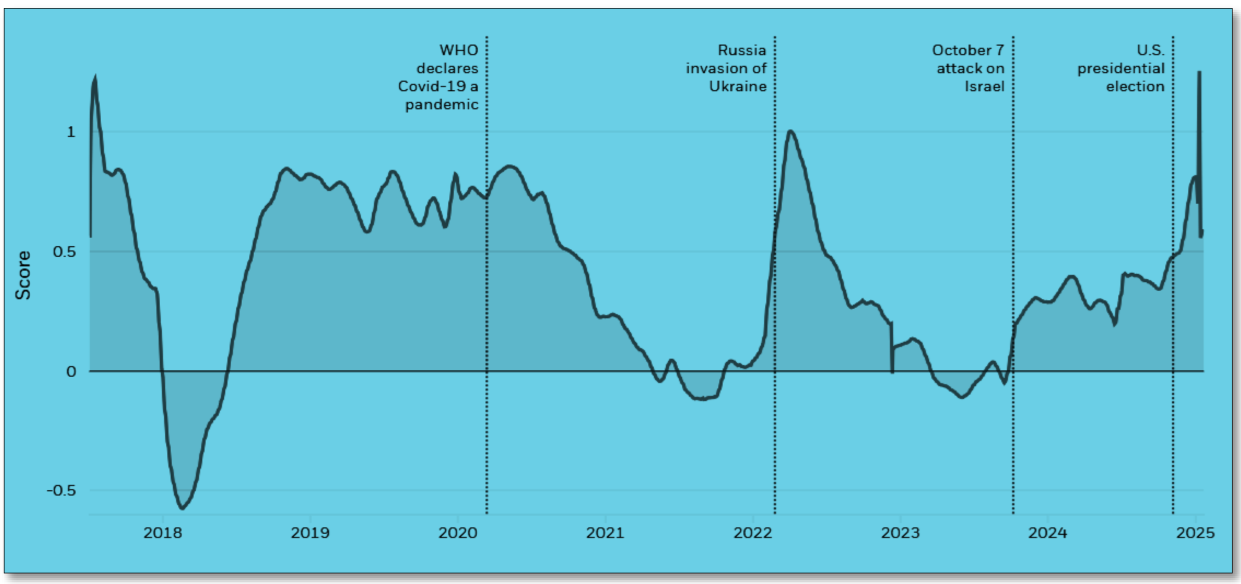
The increasing market concentration due to the dominance of large conglomerates, combined with high levels of financial interconnectedness in the Region, will require close monitoring of the regional dimension of these stakeholders' exposures to preempt any emerging problems and potential for contagion. The financial regulatory authorities in the Region have responded and are responding to these challenges in an increasingly effective way. Regionally, the regulatory and supervisory authorities in the financial sector have made enhancements to their Anti-Money Laundering/Countering Financing of Terrorism (AML/CFT) guidelines, as well as the development of frameworks to address the emergence of private digital currencies and other Fintech developments. Some of them have introduced or are planning to introduce national digital currencies. They have also improved the more traditional elements of their payment systems. The growing importance of large integrated financial firms in the regional financial space has spurred the development of the regulatory architecture for SIFIs, such as regional regulatory colleges for institutions with a large Caribbean footprint.

Nevertheless, there is room for improvement in terms of the macro-prudential surveillance of the cross-border dimension of systemic risk. In this regard, there are very good possibilities for enhanced regional coordination and cooperation in the financial stability arena. Important financial architectural elements such as a regional financial institution resolution framework, as well as, more formal memoranda of understanding to backstop cooperation in areas such as information sharing amongst regulatory agencies, the harmonization of minimum prudential standards and common licensing requirements will go a long way to ensuring the regional architecture in place for sustaining financial stability is sufficiently comprehensive to meet emerging challenges.

CHAPTER 1: OVERVIEW OF THE REGIONAL MACRO-FINANCIAL ENVIRONMENT

The 2022 - 2023 period has seen a substantial shift in the state of the world economy. The global economy transitioned from high growth in 2021 to slower growth in 2022 and 2023 as monetary policy tightened and geopolitical tensions increased. Geopolitical risks, in particular, are now structurally elevated and a major drag on global economic activity (Figure 1.1). Aggressive monetary tightening has occurred worldwide during this period due to inflationary pressures, which were made worse by supply chain interruptions and commodity price rises brought on by the conflict in Ukraine. According to IMF data, the U.S. Federal Reserve raised its policy rate to 5.25 per cent in 2023, a five-year high, while the European Central Bank raised its policy rate to 4.0 per cent in 2023, showing continued efforts to control inflation. These rate hikes have affected capital flows and borrowing rates globally. The Caribbean and other emerging nations have found it more difficult to secure funding due to rising global interest rates, which have strained domestic fiscal balances and raised refinancing costs.

Figure 1.1: Geopolitical Risks



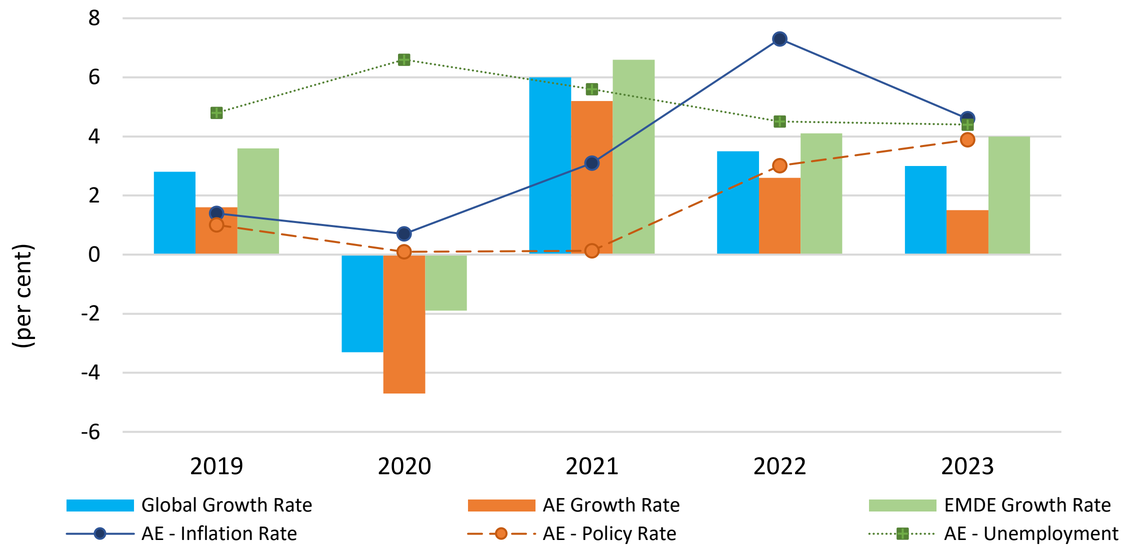
Source: BlackRock: The Global BlackRock Geopolitical Risk Indicator (BGRI)

Note: The BGRI aims to capture overall market attention to geopolitical risks. The indicator is a simple average of our top 10 risks. 1. Global trade protectionism 2. Emerging market political crisis 3. Global Technology decoupling 4. Major terror attack 5. European fragmentation 6. Russia-NATO conflict 7. US-China strategic competition 8. Middle East regional war 9. North Korea conflict 10. Major cyber attack

1.1 International Economic Developments

Global growth slowed from a high of 6.5 per cent in 2021 to 3.8 per cent in 2022 and weakened further to 3.2 per cent in 2023 (See Figure 2). These developments were driven by the Russia-Ukraine war and the lockdown in China in 2022. China re-opened in 2023, but continuing supply chain disruptions in the first half of 2023, together with rising inflation and monetary tightening, created significant hurdles for global growth in 2023. Significant debt loads also created headwinds for global demand, with rising debt servicing costs and net capital outflows hampering growth in emerging and developing countries in particular.

Figure 1.2: International Economic Environment



Source: World Economic Outlook, IMF, October 2023

Global financial conditions also deteriorated in 2022. This year was characterised by widening sovereign spreads and significant capital outflows from many developing and emerging economies. Financial vulnerabilities rose in the non-bank financial institution sector. Financial volatility in asset prices also increased significantly amongst riskier assets. In particular, crypto markets have experienced severe volatility, leading to the unravelling of some crypto funds. In 2023, inflation remained high in many advanced economies, but the acute stresses and risks faced in 2022 had eased, leading to a rebound in stock markets. Nevertheless, a slew of credit rating downgrades in emerging and developing economies since the pandemic has increased funding costs in these jurisdictions.

On average, the risks to global economic growth prospects are more balanced, and the likelihood of a hard landing from the turbulence in the last two years has receded. There are still significant downside risks. China's property sector weakness could worsen, leading to negative spillovers in the commodity markets. Geopolitical risks could also escalate at short notice, causing supply disruptions, increased inflationary pressures and weaker growth. Additionally, rising debt service costs for developing countries could push some of the more vulnerable into debt distress.

The monetary and fiscal authorities around the world have been quick and decisive in dealing with emerging risks, exemplified by the way the US authorities dealt with banking sector challenges in the first half of 2023. The monetary and financial authorities have also been careful in calibrating macro-prudential policy tools in a way that does not precipitate a general tightening in financial conditions. Moving forward, any concerns about the health of financial institutions should be addressed in a way that does not lead to institutions adopting a highly risk-averse posture, which could hamper the recovery process.

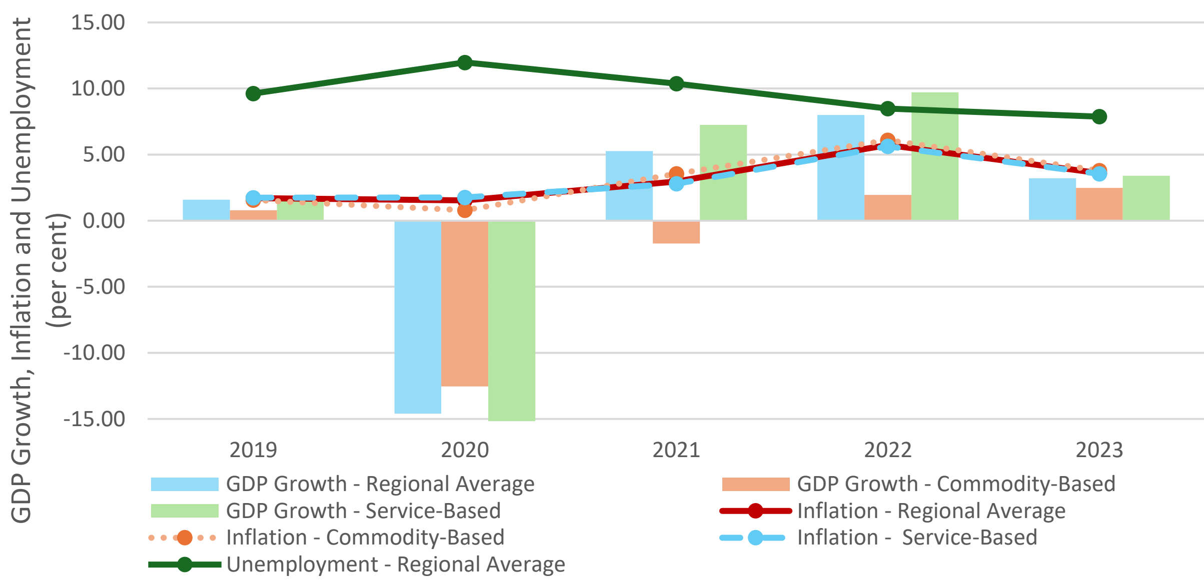
1.2 Regional Macroeconomic Developments

1.2.1 Real Economic Activity

Economic growth and unemployment

Economic growth in the Caribbean accelerated in 2022 as countries continued to open up after the COVID-19 restrictions, but moderated in 2023 as some of the main motivating factors normalised. Average regional growth in this period was skewed by Guyana's performance, which was the fastest-growing economy in the world at 63.3 per cent in 2022. Average regional growth (excluding Guyana) increased from 5.3 per cent in 2021 to 8 per cent in 2022 and fell to 3.2 per cent in 2023. Service-based economies were the main drivers of regional growth, with growth in this group of countries increasing from 7.3 per cent in 2021 to 9.7 per cent in 2022 and declining to 3.4 per cent in 2023. Commodity-based economies (excluding Guyana) experienced slower growth and had a different trajectory, with growth increasing from -1.7 per cent in 2021 to 1.9 per cent in 2022, and further to 2.5 per cent in 2023. Growth during this period was driven by a rebound in tourism and construction activity as countries opened up after the pandemic restrictions. Commodity-based producers in the region also benefited from higher energy prices. Average regional unemployment fell from 10.4 per cent in 2021 to 8.5 per cent in 2022 and 7.9 per cent in 2023 as economies reopened and growth rebounded (See Figure 1.3).

Figure 1.3: Caribbean Economic Environment



Source: Caribbean Central Banks

Inflation

Inflation pressures in the Region have been fairly well controlled in the review period (except Suriname),[1] given the rise in commodity prices and supply chain disruptions. The average inflation rate (excluding

[1] Suriname was going through some significant structural adjustments during the review period.

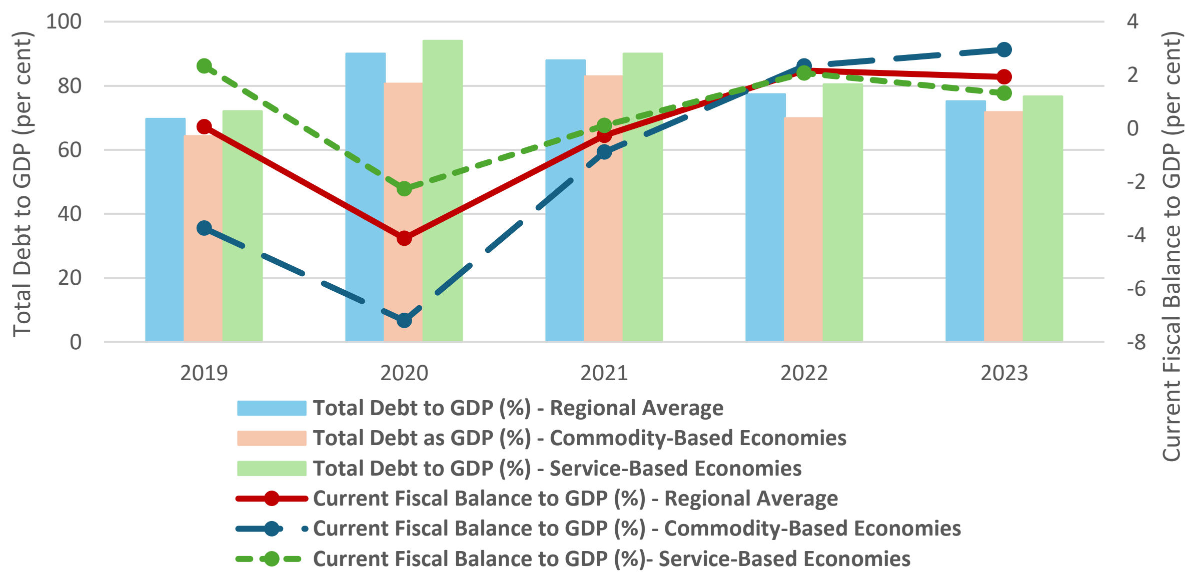
Suriname) increased from approximately 3.0 per cent in 2021 to 5.7 per cent in 2022 but fell to 3.6 per cent in 2023, as global factors driving inflationary pressures eased. Commodity and service-based economies experienced similar inflation trajectories, reflecting the dominance of external factors in inflation dynamics. This was a remarkable performance in the context of international developments and was helped by price controls in some jurisdictions (See Table 1.3).

1.2.2 Fiscal and Sovereign Debt Dynamics

Fiscal balance

The fiscal situation of the Region improved significantly between 2021 and 2022, with the current account as a percentage of GDP moving from a deficit of -1.8 per cent in 2021 to a surplus of 2.2 per cent in 2022, weakening slightly to 1.9 per cent in 2023. Commodity-based economies performed better than their service-based counterparts, with the ratio moving from -0.9 per cent to 2.3 per cent and then to 3.0 per cent for the former group of countries. In comparison, service-based economies moved from -2.1 per cent to 2.1 per cent and softened to 1.3 per cent in 2023 in the corresponding period (See Figure 1.4). These improvements were driven by the scaling back of the exceptional expenditures for COVID-19 support measures and increased tax revenues from the rebound in economic activity.

Figure 1.4: Total Debt and Current Fiscal Balance to GDP (per cent)



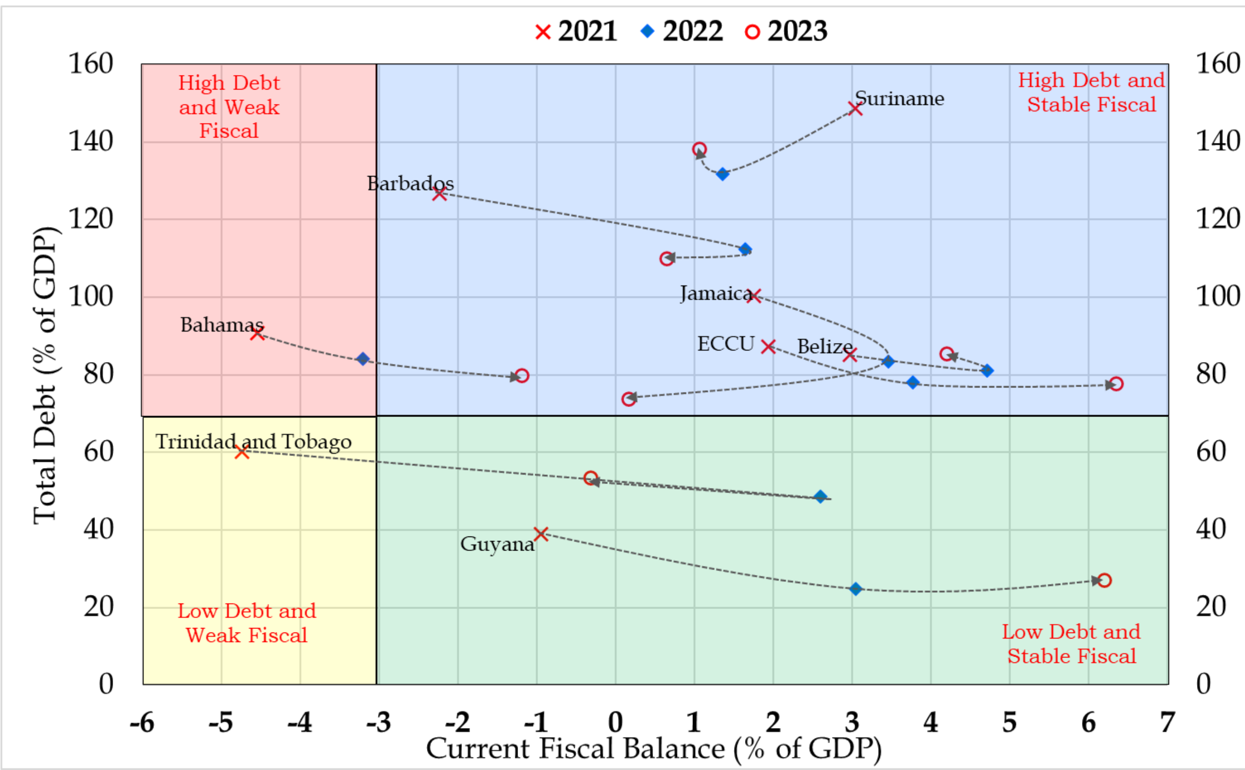
Source: Caribbean Central Banks

Sovereign Debt

The regional average total debt/GDP ratio fell from 87.9 per cent in 2021 to 77.3 per cent in 2022 and declined further to 75.2 per cent in 2023. Commodity and service-based economies had similar rates of decline between 2021 and 2022, but in 2023, while the average debt ratio for service-based economies continued to decline, the average ratio for commodity-based economies rose slightly (See Figure 1.4). The declining average regional debt/GDP ratio was driven by higher economic growth rates and countries' positions on the fiscal consolidation cycle. The fact that commodity-based economies recorded relatively higher increases in their debt stock and posted slightly lower growth rates compared to their service-based counterparts helped explain most of the differential in debt ratios between these two groups of countries over the review period. It is noteworthy that two jurisdictions in the review period were above the 15 per cent benchmark, thought to be the threshold beyond which problems with debt sustainability arise.

The nexus between the fiscal accounts and sovereign debt is an important dynamic underpinning the economic vulnerability of Caribbean economies. All countries in the region recorded improved positions in 2022, while most recorded some reversals in 2023. Nevertheless, by 2023, all countries were either in the high debt/stable fiscal or the low debt/stable fiscal quadrants (See Figure 1.6).

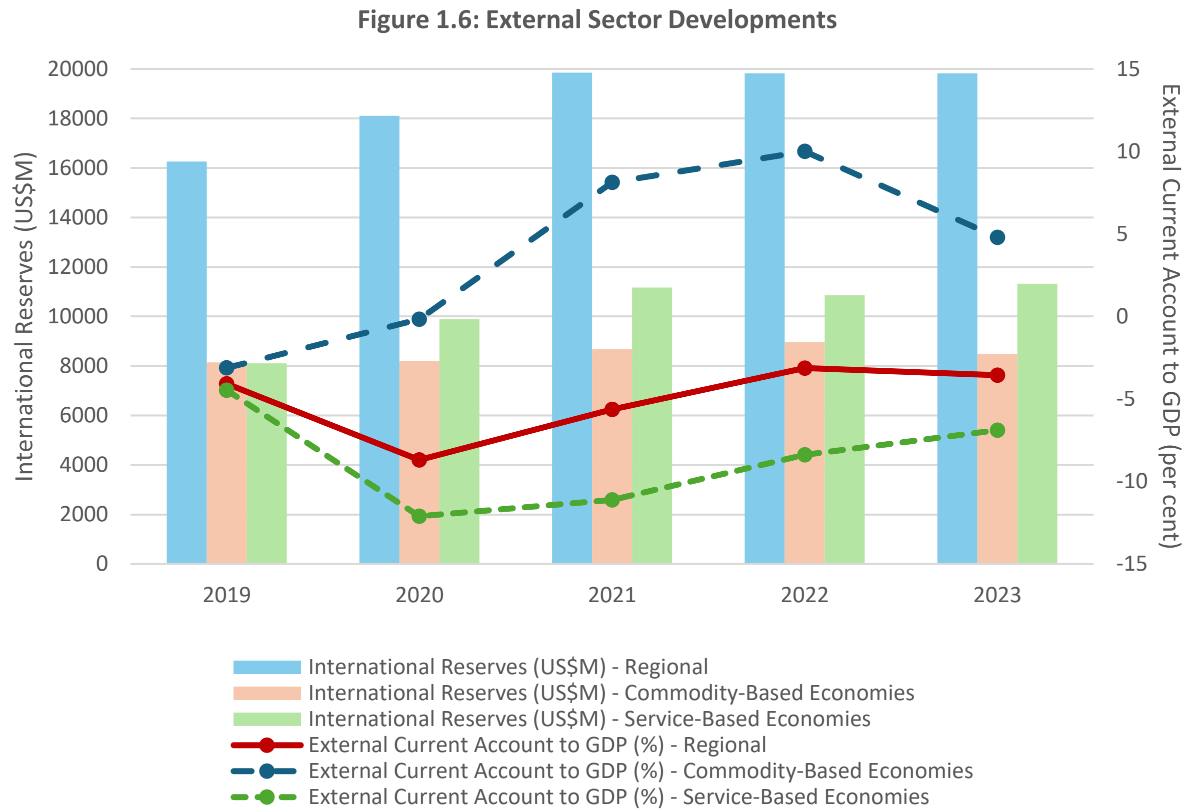
Figure 1.5: The Fiscal Balance/Sovereign Debt Nexus



1.2.3 External Sector Developments

External current account

The regional external current account as a percentage of GDP (excluding Guyana) improved from -5.6 per cent in 2021 to -3.1 per cent in 2022 but weakened slightly to -3.6 per cent in 2023 (See Figure 1.6). Commodity-based economies again performed much better in this area relative to service-based economies. The improvement in 2022 was driven by improvements in tourism and increased energy prices, and the subsequent softening in 2023 was due primarily to softening energy prices, which negatively affected the performance of commodity-based economies.



Source: Caribbean Central Banks, September 2023

External Reserves

Regionally, the total gross international reserves of the monetary authorities were relatively unchanged, moving from approximately US$19.9 billion in 2021 to US$19.8 billion in 2022 and 2023 (See Figure 1.6). Relatedly, average monthly import cover decreased slightly from 8.3 months in 2021 to 7.0 months in 2022 and 6.9 months in 2023. Importantly, all countries except one exceeded the 3-month benchmark for reserve adequacy.

1.2.4 Credit and Financial Market Developments

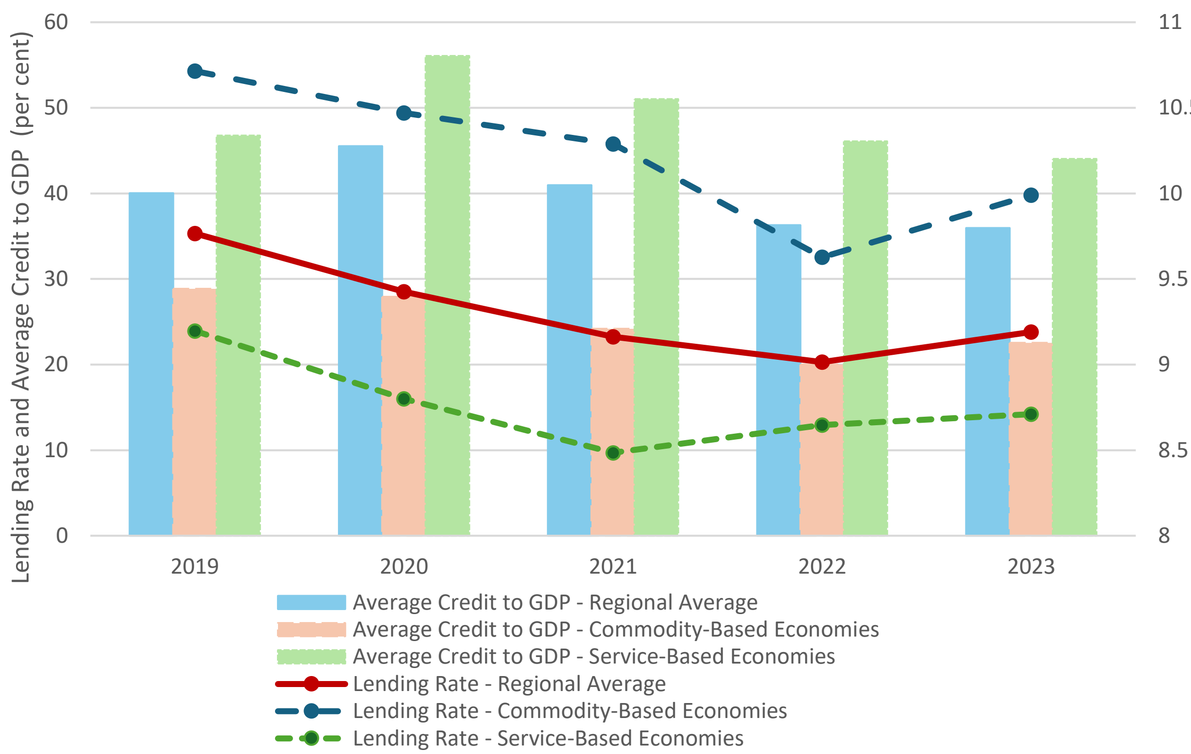
Credit market

Private sector credit in the region (except Suriname[2]) generally increased in 2022 and 2023 from lows in 2021 as economies recovered. Loan rates rose in service-based countries in 2022 relative to 2021 as countries sought to tighten monetary policy to deal with inflationary pressures. Commodity-based

[2] Driven by policies to slow credit growth to government and credit supply generally to get a handle on inflation.

economies' accommodative stance continued a little longer based on concerns about economic recovery, with only Suriname tightening in 2023 due to concerns about inflation (See Figure 1.7).

Figure 7: Lending Rate and Average Credit to GDP



Source: National Central Banks

Financial Markets

The performance of equity markets in the region was mixed in 2022 and 2023. Markets in The Bahamas and Suriname improved, but the markets in Jamaica and Trinidad and Tobago remained soft against the backdrop of relatively weak growth and monetary tightening. The concentration of assets of collective investment schemes in government securities and foreign securities also suggests that there are significant exposures to international equity price movements and sovereign risk.

In terms of the foreign exchange markets in the Region generally, flexible exchange rate regime markets experienced relatively subdued exchange rate pressure as a result of central bank interventions in the market. The problem of excess demand in the foreign exchange market, however, continues to be a challenge in both flexible and fixed exchange rate regime countries because of a series of international shocks, including natural disasters, but also because of structural economic weaknesses across the Region. These structural weaknesses and shocks can have significant impacts on the health of the financial system, so the monetary authorities must continue to be vigilant by monitoring these risks, assessing their threat to the health of the financial system through appropriate stress tests and implementing appropriate policies to mitigate these risks.

Financial Infrastructure

Financial market infrastructures continue to be developed in the Region. All jurisdictions have real-time gross settlement systems, and the majority have deposit insurance schemes and credit bureaus. In terms of capital markets, most jurisdictions now have stock exchanges and central securities depositories. These developments have been the result of concerted and ongoing efforts to improve the financial infrastructure underpinning the operation of the financial system in the Caribbean, which have increased the Region's capacity to mitigate financial risks (See Table 1.1).

Table 1.1: Financial Market Infrastructure 2023

	Deposit Insurance	Credit Bureau	RTGS	Central Securities Depository	Stock Exchange
Bahamas	Yes	Yes	Yes	Yes	Yes
Barbados	Yes	Yes	Yes	Yes	Yes
Belize	Yes	No	Yes	Yes	No
ECCU	No	Yes	Yes	Yes	Yes
Guyana	Yes	Yes	Yes	Yes	Yes
Haiti	No	Yes	Yes	No	No
Jamaica	Yes	Yes	Yes	Yes	Yes
Suriname	No	Yes	Yes	No	Yes
Trinidad and Tobago	Yes	Yes	Yes	Yes	Yes

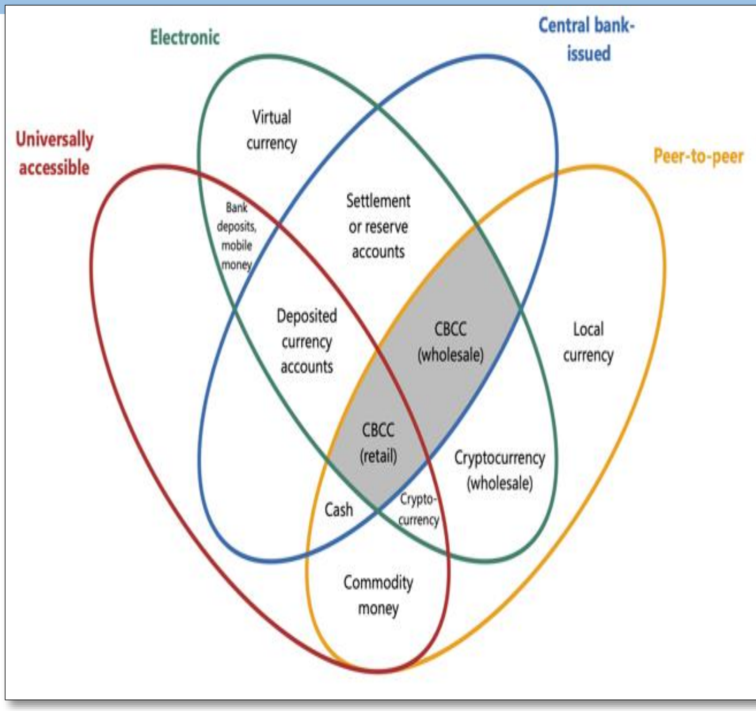
Sources: Caribbean Central Banks; Financial Stability Reports of Caribbean countries

Box 1.1: Financial Stability and Digital Currencies: Key Considerations

Central Bank Digital Currencies (CBDCs) are digital forms of central bank-issued money or fiat currency. CBDCs represent a new way for central banks to issue legal tender to strengthen financial inclusion, enhance payment efficiency and influence monetary policy. CBDCs also represent innovation by central banks and are connected to the new wave of technology-driven financial innovation (FinTech). These forms of money can be subdivided into four (4) core classifications: (1) Universally accessible money, (2) Electronic money, (3) Central bank-issued money, and (4) Peer-to-peer money (Figure 1). CBDCs have gained significant momentum in recent years, with over eight per cent (80 per cent) of the world's central banks advancing their research and pilot projects in this area.

CBDCs can be further subdivided into wholesale CBDCs and retail CBDCs. Retail CBDCs are at an intersection of peer-to-peer money, universally accessible money, electronic money and central bank-issued money and have the potential to replace cash. In contrast, Wholesale CBDCs, which are designed for wholesale transactions, can improve the speed and efficiency of settlements by financial institutions. CBDCs may also have potential implications for bank funding and financial intermediation, systemic risk and financial contagion, as well as privacy and cyber risk resilience.

Figure 1: Money Flower



During 2022 to 2023, notable developments on the CBDCs front in the Caribbean involved the continued operation of the Sand dollar in The Bahamas, the piloting of the DCash, the digital version of the Eastern Caribbean Currency Dollar in the ECCU and the launch of Jam-Dex in 2022.

The main challenge for CBDCs once past the technical implementation stage is to increase usage. In this context, the amount of Sand Dollar in circulation was very small, B$1.1 million at the end of 2022, rising to B$1.9 million at the end of 2023. In recognition of this challenge, the Jamaican Government has offered financial incentives to the first 100,000 persons to sign up (create a digital wallet). This was a successful intervention since the threshold was quickly attained. The challenge now is to increase the number of users and expand the network by increasing the number of merchants that accept the CBDC and the number of commercial banks that provide a digital wallet for the digital currency. At present, only one commercial bank in Jamaica, the National Commercial Bank, offers a digital wallet (Lynk).

However, this ability to reach large numbers of consumers by CBDCs also creates implicit concerns for financial stability. The model used to implement CBDCs can easily facilitate a shift from commercial bank currency to central bank money, which is seen as more secure and has an implicit guarantee attached and thus reducing the incentive to hold commercial bank accounts. Considering this, CBDCs are likely to have implications for the prudential regulatory limits of central banks, including liquidity coverage ratios, leverage ratios and net stable funding ratios – particularly during periods where banks may lack sufficient reserves. Further, with CBDCs replacing traditional deposits, there will likely be a greater reliance on wholesale funding, especially for non-bank financial institutions. Finally, with a reduction or outflow in deposits due to CBDC issuance, credit availability to the real economy may become limited. Beck et al. (2021) also argue that CBDCs may crowd out bank deposits and ultimately raise the funding costs of financial institutions and decrease investments.

Connected to the issuance of CBDCs is the ultimate creation of large data sets, which can pinpoint consumer behaviour across multiple jurisdictions and platforms. Issuance of digital currencies by any private or public economic agent has implications ultimately for privacy, security and ultimately ownership of this data. Moreover, there are issues of concern regarding the cyber-risks associated with CBDCs and their issuance, inclusive of the systems used to secure CBDCs and protect both the central bank and consumers from cyber-related events, including hacking and system failures.

FinTech can provide opportunities for enhancing financial systems and lowering the cost of intermediation for financial institutions and consumers. However, with the issuance of CBDCs, there can be a real impact on financial stability and credit availability. Moreover, privacy, security and ultimately ownership of data related to FinTech should be amongst the core considerations.

Box 1.2: Central Bank Digital Currencies and Payment System Risk

The extensive research and pilot programmes for Central Bank Digital Currencies (CBDCs) being carried out internationally suggest that CBDCs will feature prominently in future payment systems. Further, interest in CBDC projects has not been limited to central banks, as several Fintech companies have invested heavily in developing products to lead and/or complement CBDC development projects.

Despite the positive feedback on CBDC development, concerns remain about the potential negative impact on the payments system and the need to address the risks identified. Three (3) of the highlighted risks to the financial system posed by the implementation of CBDCs are potential 'run on banks', disintermediation (as it relates to commercial banks) and the possibility of double spending, particularly where offline payments are contemplated. However, as the research and development work on CBDCs advances, design options have been identified to significantly reduce the likelihood of these risks materialising in a way that causes the widespread negative impact initially envisaged.

The results of the early CBDC experiments and the findings from various research initiatives have revealed that the risks of bank runs and disintermediation can be mitigated through the design of the CBDC. Measures such as the implementation of CBDC spending/wallet limits automatically prevent the removal of large amounts from the financial system and thereby minimise, if not eliminate, the threat of bank runs through a substitution of account balances with CBDC balances. Further, particularly in the case of retail CBDCs, rendering the CBDC non-interest-bearing makes it less attractive for maintaining large CBDC balances outside the banking system. To address the matter of disintermediation, most central banks have implemented and/or are leaning towards implementing a system whereby the CBDC is distributed via financial institutions, whether it be commercial banks, credit unions or other regulated non-bank financial institutions. Through this arrangement, although financial institutions may be removed from retail transactions (for example, P2P), they would remain relevant as a key stakeholder in the CBDC distribution network. This is indeed a more viable option compared with the alternative, whereby the respective central bank would hold accounts for all CBDC wallet holders and issue the CBDC directly to them.

With offline CBDC payments, developments in this area are in the early stages, with due consideration being given to the risk of double spending. It has been recognised that the provision of an offline payment capability increases the likelihood of this risk materialising, given that settlement of the offline transactions is delayed. Consequently, although it has been recognised that offline payment capability is critical for the successful implementation of a CBDC, particularly where it has been rendered legal tender, the associated risks must be carefully considered and mitigated before implementation. To date, several options are being explored to specifically address the issue of double spending, which is deemed to be the greatest risk factor associated with offline payment capabilities.

By and large, the evidence suggests that CBDCs will be a prominent feature in the future of payment systems. As CBDC research, experiments and pilot projects advance, it is imperative that the payment system infrastructure be so structured and sufficiently agile to effectively support these fast-paced developments. Failure to do so may inadvertently introduce new pain points and inefficiencies, which go contrary to the objectives of these initiatives

CHAPTER 2: REGIONAL FINANCIAL STABILITY INDICATORS

Banks continued to exhibit resilience during the review period, as several central banks maintained their risk-based supervisory approach. A review of the financial soundness indicators for banks showed that asset quality continued to improve during the review period, as the ratio of non-performing loans to total loans fell from 6.9 per cent in 2021 to 5.7 per cent in 2022 and to 5.1 per cent in 2023. The performance in this area in the last two years for the service-based economies and their commodity-based counterparts was similar. Profitability in the banking sector increased strongly, especially in the previous year of the review period. The service-based economies have also outperformed their commodity-based counterparts in this area, contrary to previous periods. Liquidity indicators also improved in the review period, driven by the service-based economies.

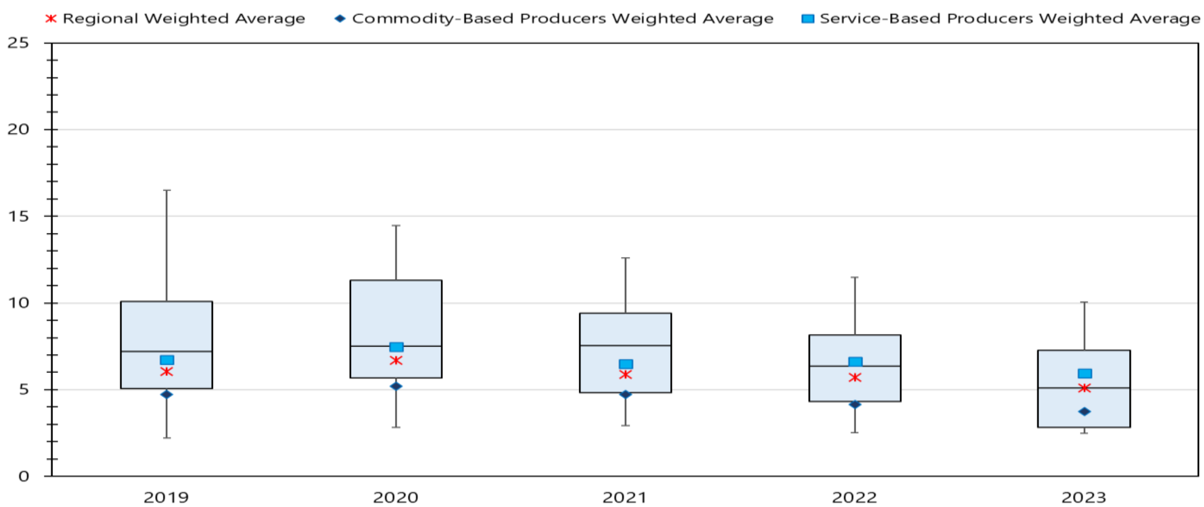
In terms of the insurance sub-sector, both life and non-life companies remained highly capitalised, with the level of capitalisation increasing for both classes of insurance companies over the review period. In terms of profitability, however, there was a significant decline among non-life insurance companies. In contrast, the profitability of the life insurance sector showed signs of recovery in the review period, but this was driven primarily by Trinidad and Tobago.

2.1 Banking Sector Soundness Indicators

2.1.1 Asset Quality

The regional weighted average of non-performing loans to total loans declined from 5.9 per cent in 2021 to 5.7 per cent in 2022 and then to 5.1 per cent in 2023. The performance in this area in the last two years for service-based economies mirrored that of their commodity-based counterparts (See Figure 2.1)[3].

Figure 2.1: Non-Performing Loans to Total Gross Loans for Commercial Banks (%)

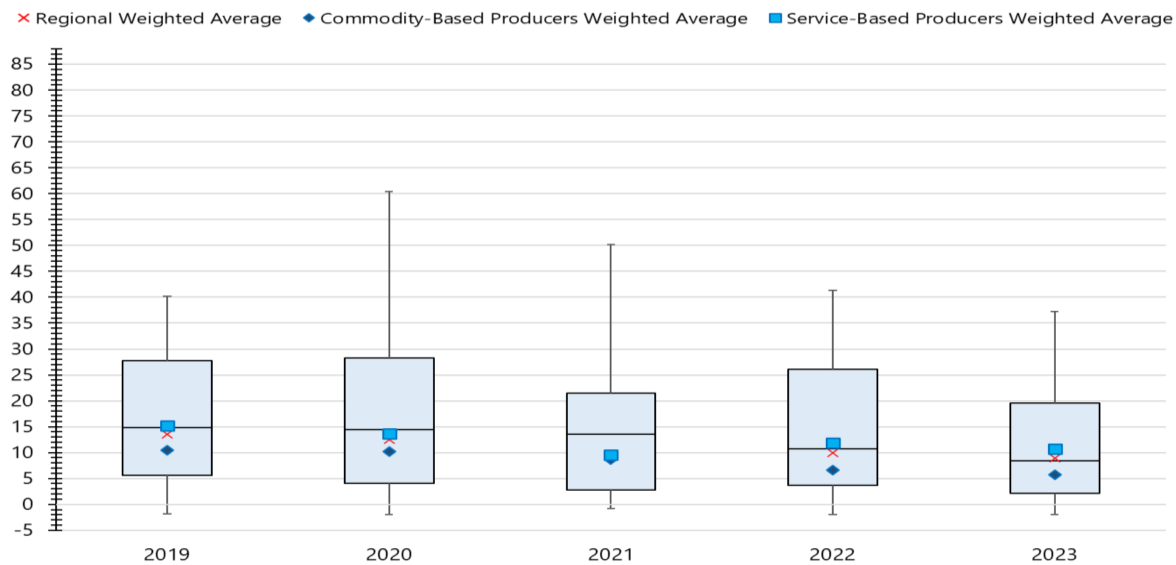


Source: : National Central Banks for Caribbean Countries, March 2024
Notes : Haiti data not available ; Weighted Averages weighted by Banking systems assets.

[3] Curacao and Sint Maarten data for 2022 and 2023 are not available and are therefore excluded from the analysis.

The weighted average bank non-performing loans net of provisions to capital ratio also fell from 9.3 per cent in 2021, but rose to 10.0 per cent in 2022 and fell to 8.9 per cent in 2023. Both commodity and service-based economies exhibited the same trend (See Figure 2.2). This improvement in asset quality was driven by the recovery in growth and employment and helped to allay fears about the possibility of a significant increase in impaired assets in the wake of the pandemic. It also vindicated the policies adopted by regional central banks to deal with the pandemic.

Figure 2.2 : Non-Performing Loans Net of Provisions to Capital for Commercial Banks (%)



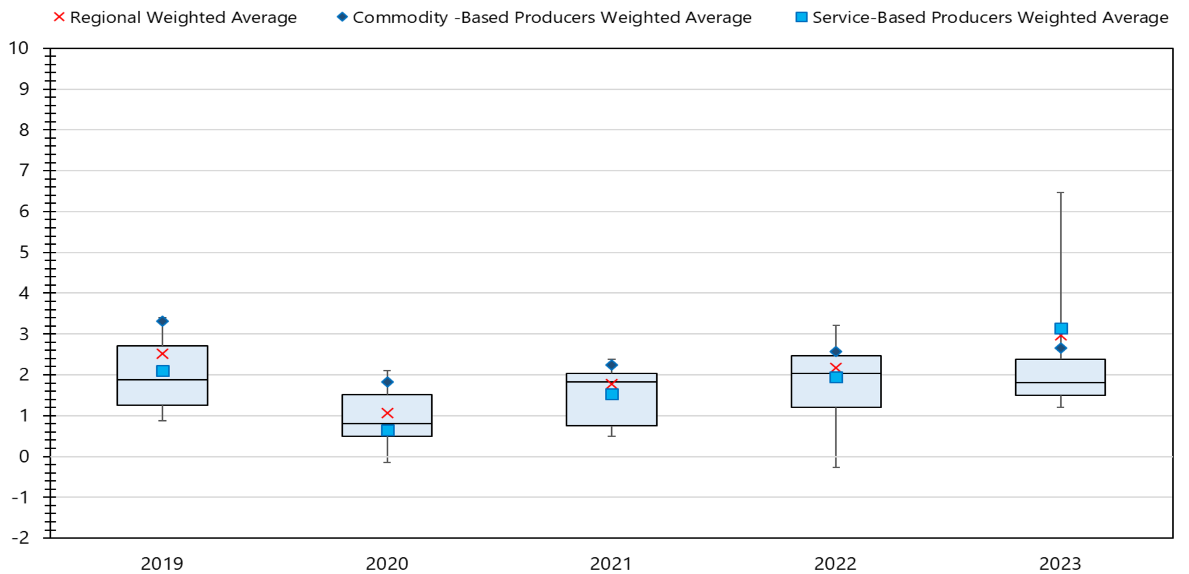
Source: : National Central Banks for Caribbean Countries, March 2024
Notes : Haiti data not available ;Data for Curacao & Sint Maarten only available from 2017 - 2021; Weighted Averages weighted by Banking systems assets.

2.1.2 Earnings and Profitability

Profitability increased strongly in the Region as asset quality improved. The service-based economies have also outperformed their commodity-based counterparts in this area, contrary to previous periods. The regional weighted average return on assets (ROA) rose from 1.7 per cent in 2021 to 2.2 per cent and further to 3.0 per cent in 2023 (See Figure 2.3). The performance has improved in both service-based and commodity-based economies, but the improvement was more significant among the former. This was important for regional financial stability as this has traditionally been an area of weakness for the service-based economies and, by extension, the Region as a whole. The return on equity (ROE) exhibited similar trends with the ratio increasing consistently over the review period from 12.4 per cent in 2021 to 14.8 per cent in 2022 and to 20.7 per cent in 2023 (See Figure 2.4). The significant jump in ROE in 2023 was driven by the banking sector in The Bahamas.

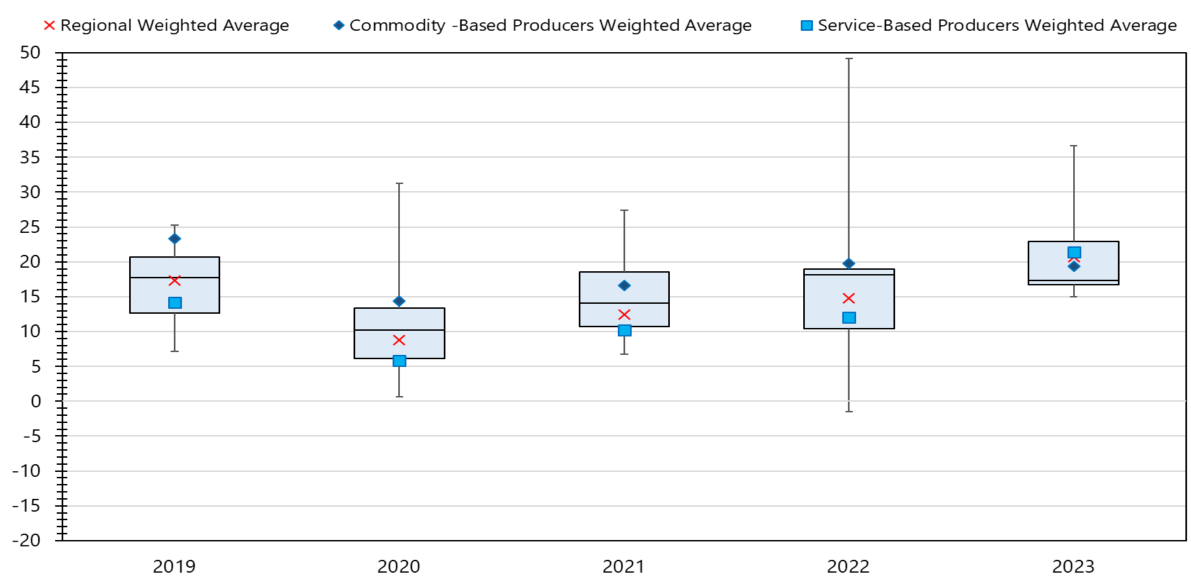
Contributing to this better outcome was a decline in provisions for bad debts and reductions in staff and occupancy costs. Additionally, the ratio of net interest income to average assets firmed by 7.7 per cent and 15.5 per cent in 2022 and 2023, respectively.

Figure 2.3 : Return on Assests for Commercial Banks (%)



Source: : National Central Banks for Caribbean Countries, March 2024
Notes : Haiti data not available ; Data for Curacao & Sint Maarten only available from 2017 - 2021; Weighted Averages weighted by Banking systems assets.

Figure 2.4 : Return on Equity for Commercial Banks (%)



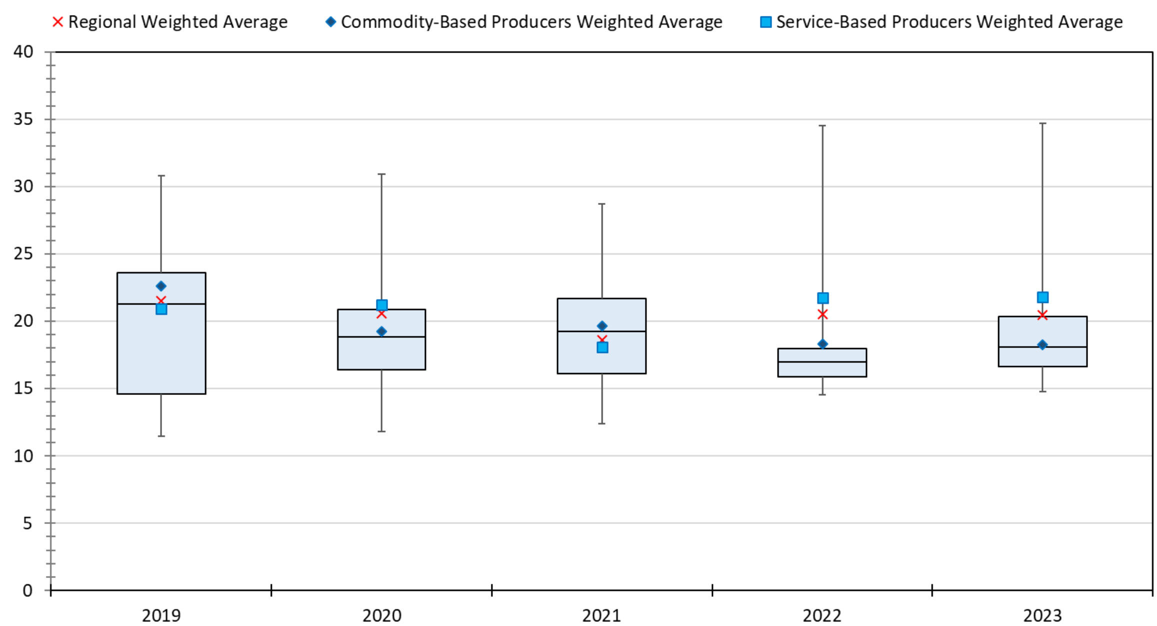
Source: : National Central Banks for Caribbean Countries, March 2024
Notes : Haiti data not available ;Data for Curacao & Sint Maarten only available from 2017 - 2021; Weighted Averages weighted by Banking systems assets.

2.1.3 Bank Capital Adequacy

The average regional capital adequacy ratio (CAR) remained significantly above the regulatory minimum during the review period. The average regional CAR increased from 18.6 per cent in 2021 to 20.5 per cent in 2022 and 2023 (see Figure 2.5). This improvement was driven by service-based economies as the average CAR for commodity-based economies declined from 19.7 per cent in 2021 to an average of 18.3 per cent in 2022 and 2023.

The lower level of capital adequacy in 2022 resulted from additional capital requirements of the Basel II/III capital adequacy framework. The significant increase in risk-weighted assets (RWAs) in 2022 was primarily due to the implementation of new RWA standards for market and operational risks. All countries meet the standard, with a maximum of 34.7 per cent and a minimum of 14.8 per cent.

Figure 2.5: Regulatory Capital to Risk Weighted Assets for Commercial Banks (%)



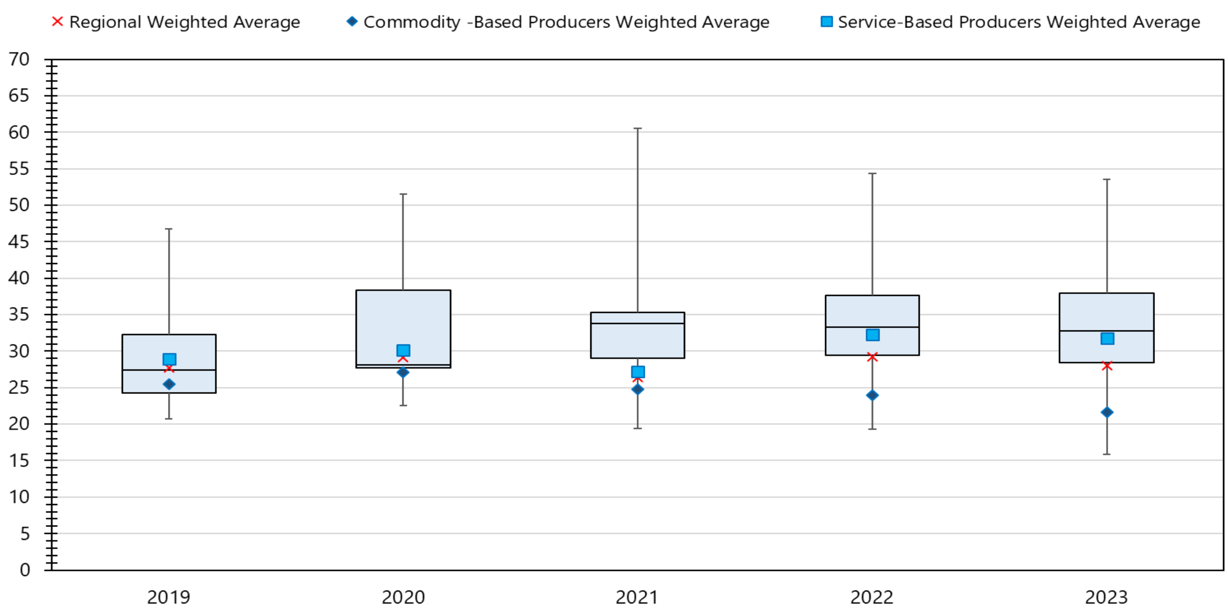
Source: : National Central Banks for Caribbean Countries, March 2024
Notes : Haiti data not available ; Weighted Averages weighted by Banking systems assets.

2.1.4 Bank Liquidity

Liquidity in the regional banking sector has remained relatively high in the review period. The liquid assets to total assets ratio for commercial banks increased from 26.4 per cent in 2021 to 29.3 per cent in 2022, moderating a little to 28.0 per cent in 2023. This buoyant liquidity was driven by service-based economies as their average liquidity ratio increased from 27.2 per cent in 2021 to 31.8 per cent in 2023, as liquidity in their commodity-based counterparts declined by 3.1 percentage points over the review period (See Figure 2.6). These trends were driven by lower credit growth and higher deposit growth in service-based economies relative to their commodity-based counterparts. Higher central bank credit to the government in some service-based economies also contributed to this trend.

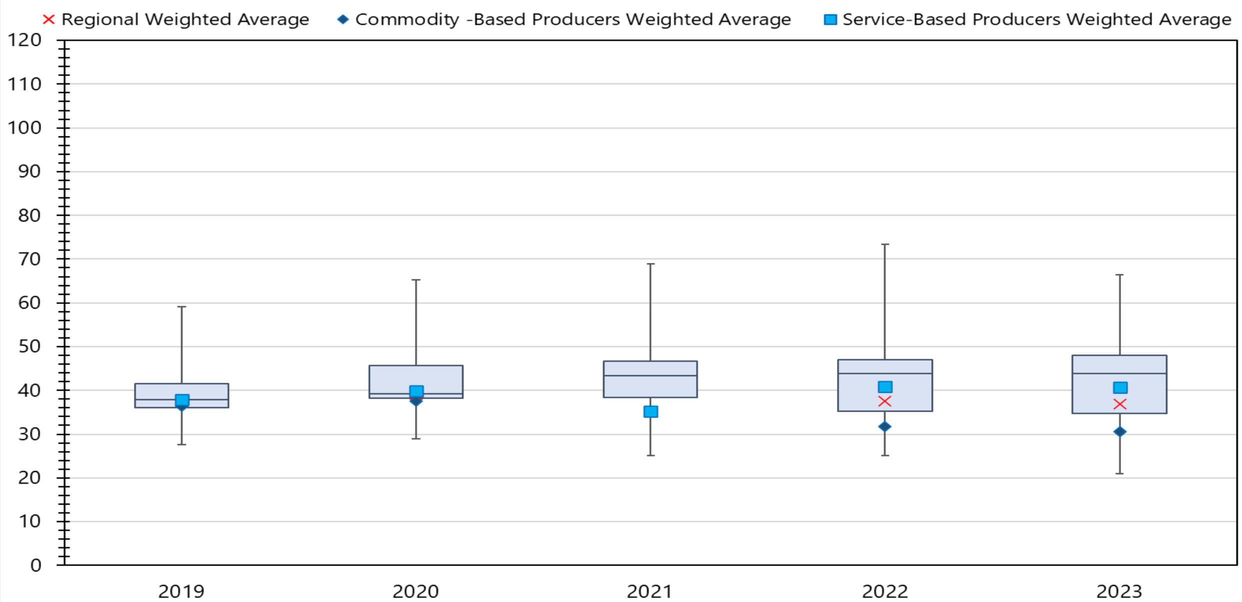
The average ratio of liquid assets to short-term liabilities exhibited similar trends with higher ratios in service-based economies relative to commodity-based economies (See Figure 2.7). Also, there was a high degree of heterogeneity in liquidity positions among commodity-based economies, with Suriname recording the highest average liquid assets to short-term liabilities ratio of 93.6 per cent, while Trinidad and Tobago recorded the lowest ratio of 23.0 per cent over the review period.

Figure 2.6 : Liquid Assets to Total Assets for Commercial Banks (%)



Source: : National Central Banks for Caribbean Countries, March 2024
Notes : Haiti data not available ; Data for Curacao & Sint Maarten only available from 2017-2020; Weighted Averages weighted by Banking systems assets.

Figure 2.7 : Liquid Assets to Short-Term Liabilities for Commercial Banks (%)



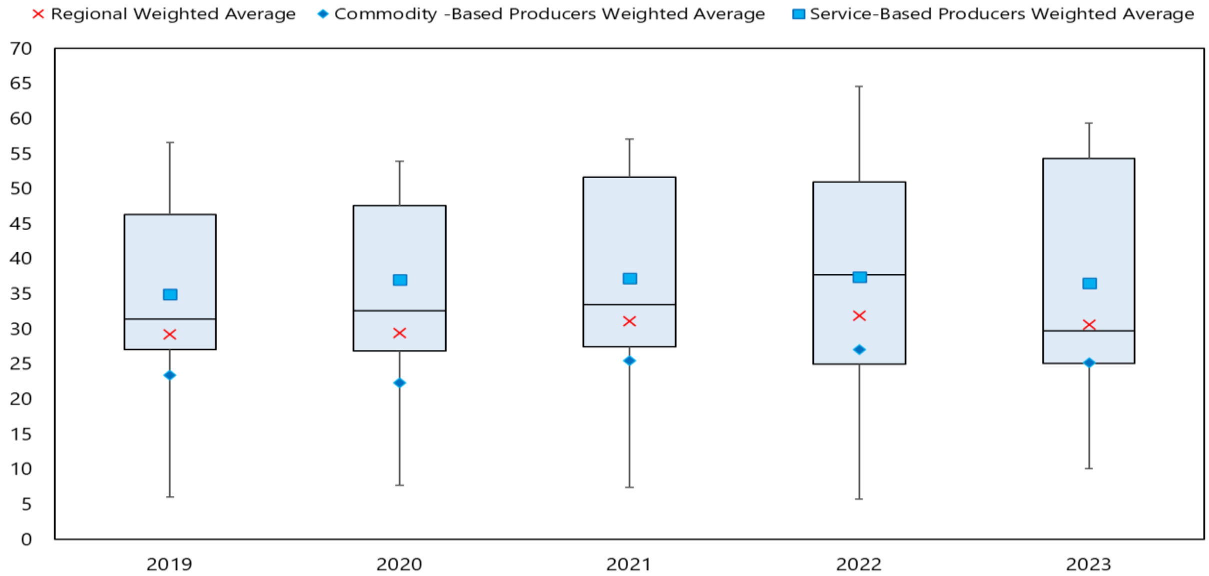
Source: : National Central Banks for Caribbean Countries, March 2024.
Notes : Haiti data not available ; Data for Curacao & Sint Maarten only available from 2017-2020; Weighted Averages weighted by Banking systems assets.

2.2 Life Insurance

2.2.1 Capital Adequacy

In the insurance sector, the life insurance component remained dominant across the Caribbean, accounting for more than 70.0 per cent of the Region's average total insurance assets. The regional weighted average capital to asset ratio for life insurance companies fell slightly from 31.1 per cent to 30.6 per cent between 2021 and 2023. This performance was attributable to both commodity and service-based economies, with the former falling from 25.5 per cent to 25.2 per cent and the latter declining from 37.2 per cent to 36.6 per cent between 2021 and 2023 (See Figure 2.8).

Figure 2.8 - Capital/Total Assets (Life)

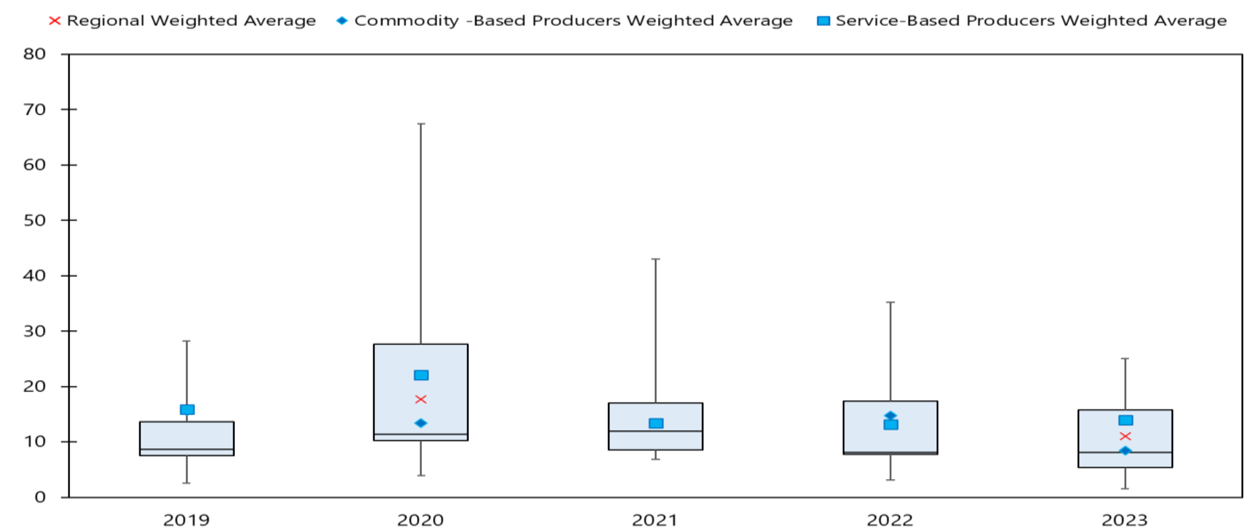


Source: : National Central Banks for Caribbean Countries, October 2024
Notes : ECCU and Haiti data not available ; Weighted Averages are weighted by Insurance systems assets.

2.2.2 Profitability

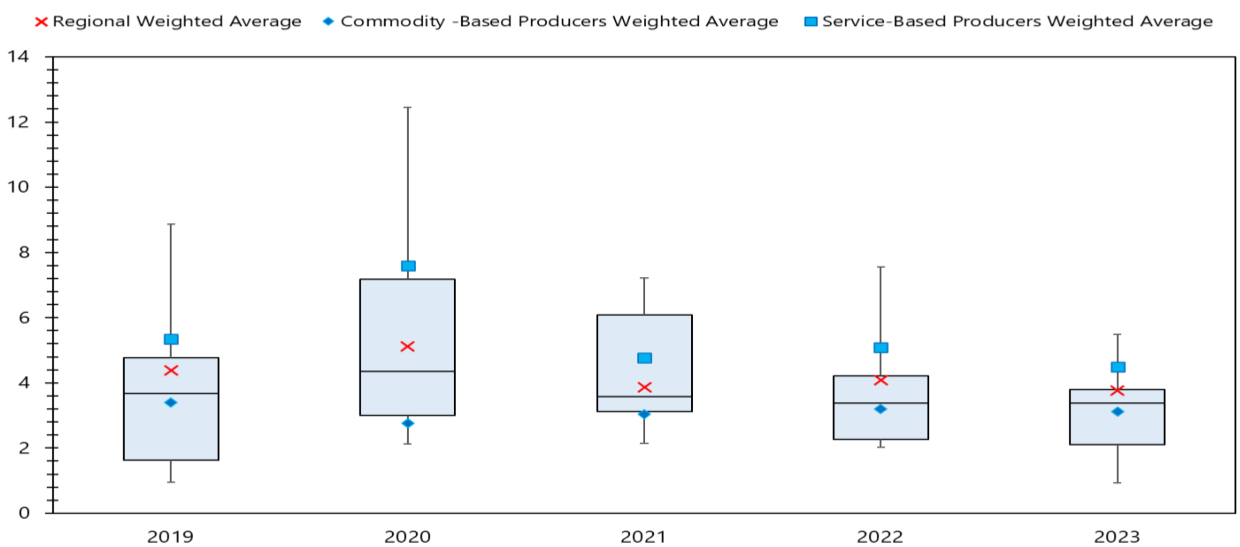
The average ROE for the Region declined between 2021 and 2023, with the ratio falling from 13.4 per cent to 11.1 per cent over the period. This was driven by commodity-based economies, which as a group fell from 13.5 per cent to 8.5 per cent while service-based economies increased slightly from 13.4 per cent to 13.9 per cent (See Figure 2.9). The performance of the service-based economies was influenced by significant increases in The Bahamas, which overshadowed declines in Jamaica, Belize and Barbados. Overall, the majority of jurisdictions in the region recorded declining profitability during the review period.

Figure 2.9 : Return on Equity (Life)



Source: : National Central Banks for Caribbean Countries, October 2024
Notes : ECCU and Haiti data not available

Figure 2.10 : Return on Assets (Life)



Source: : National Central Banks for Caribbean Countries, October 2024
Notes : ECCU and Haiti data not available

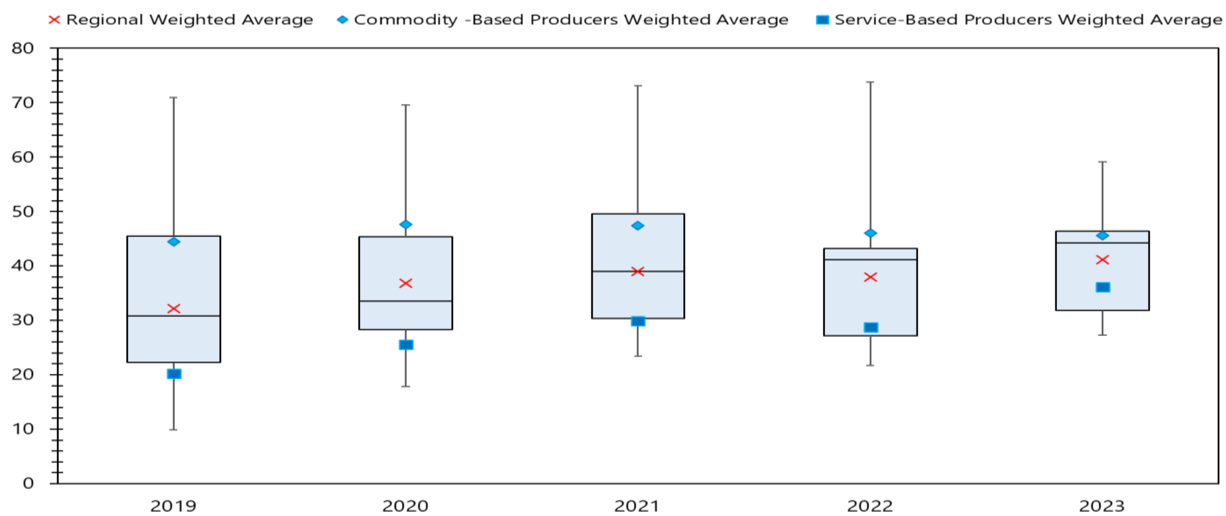
The average ROA declined slightly from 3.9 per cent in 2021 to 3.8 per cent in 2023. In this case, the commodity-based economies registered a marginal increase from 3.0 per cent to 3.1 per cent over the review period, while service-based economies registered a decline from 4.8 per cent to 4.5 per cent (See Figure 2.10). In total, five of seven reporting jurisdictions recorded declines in their ROA.

2.3 Non-Life Insurance

2.3.1 Capital Adequacy

Throughout the Region, non-life insurers maintained adequate stocks of capital relative to their assets, as the regional capital to total asset ratio averaged above 38 per cent for the period 2021 to 2023 (See Figure 2.11). The average capital adequacy ratio for non-life insurance companies increased from 39.0 per cent in 2021 to 41.1 per cent in 2023. This performance was driven by service-based economies as their capital adequacy ratio increased from 29.9 per cent to 36.1 per cent while the ratio for commodity-based economies declined from 47.4 per cent to 45.6 per cent over the review period.

Figure 2.11 : Capital/Total Assets (Non-Life)

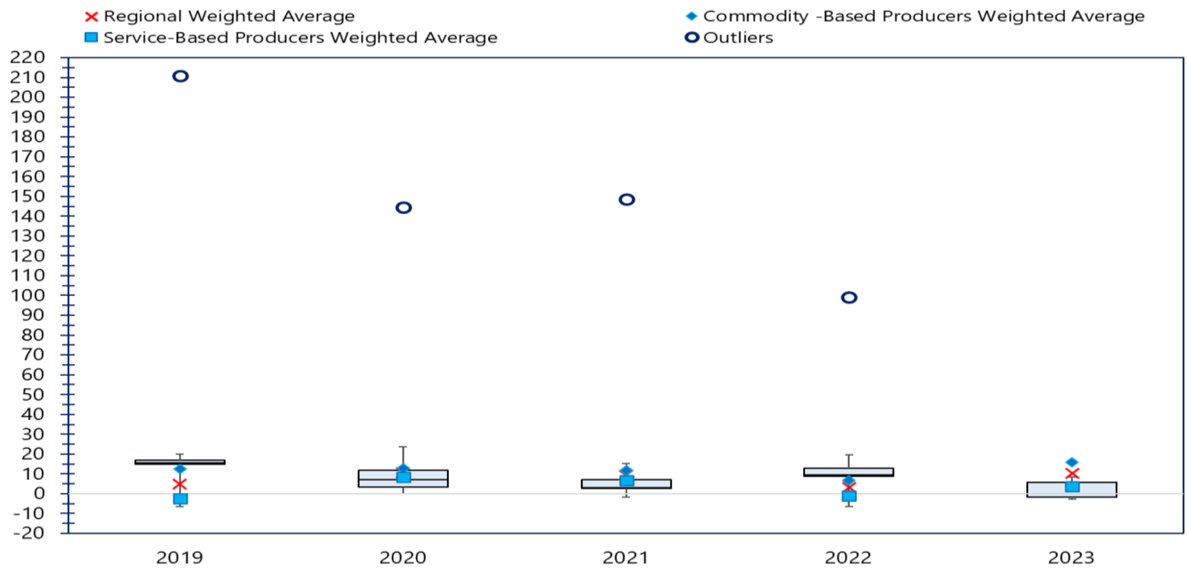


Source: : National Central Banks for Caribbean Countries, October 2024
Notes : ECCU and Haiti data not available

2.3.2 Profitability

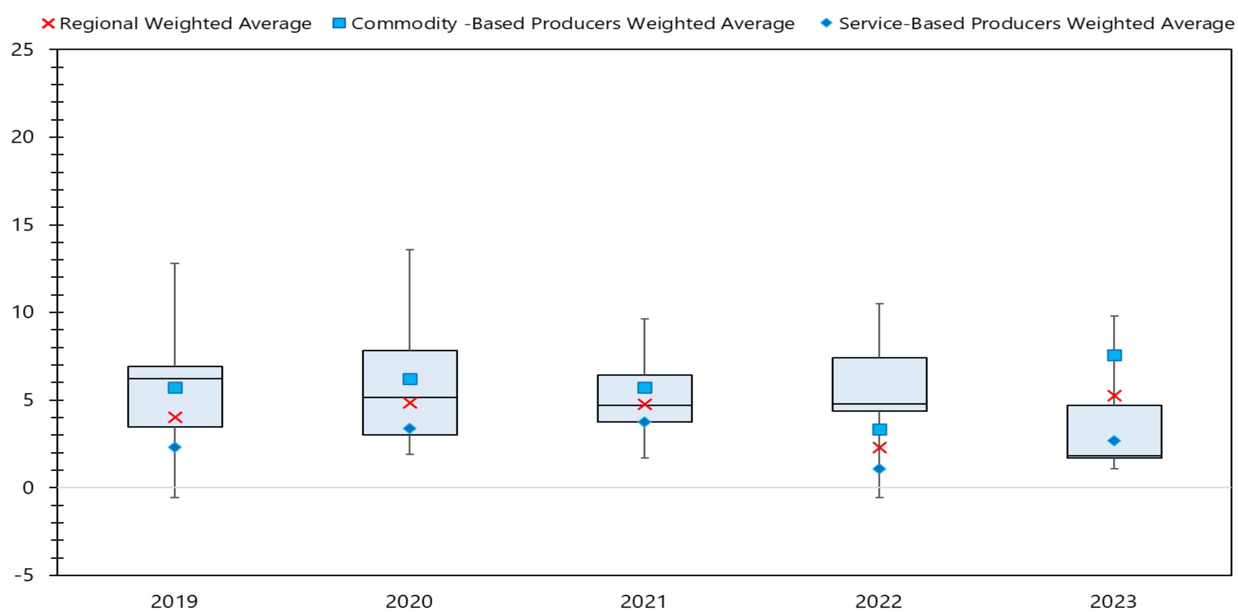
Profitability as measured by the ROE for the non-life insurance sector increased from 9.4 per cent in 2021 to 10.3 per cent in 2023. Commodity-based economies recorded an increase from 11.9 per cent in 2021 to 16.0 per cent in 2023, while their service-based counterparts registered a decline from 6.6 per cent in 2021 to 3.8 per cent in 2023. The average ratio masks significant heterogeneity among countries, with two of the six reporting countries registering significant declines over the review period.

Figure 2.12: Return on Equity (Non-Life)



Source: : National Central Banks for Caribbean Countries, October 2024
Notes : ECCU and Haiti data not available ; Weighted Averages are weighted by Insurance systems assets

Figure 2.13 : Return on Assets (Non-Life)



Source: : National Central Banks for Caribbean Countries, October 2024
Notes : ECCU and Haiti data not available ; Weighted Averages are weighted by Insurance systems assets

In terms of ROA, the performance for the region mirrored the performance based on the ROE. The average ROA for the region increased from 4.8 per cent in 2021 to 5.3 per cent in 2023. Commodity-based economies again drove the performance, increasing from 5.7 per cent to 7.6 per cent, while their service-based counterparts declined from 3.7 per cent to 2.7 per cent over the review period. Suriname experienced rising costs of claims due to high inflation, while some jurisdictions were affected by weather-related events. The rising cost of reinsurance also negatively affected the performance of this sub-sector (See Figures 2.12 and 2.13).

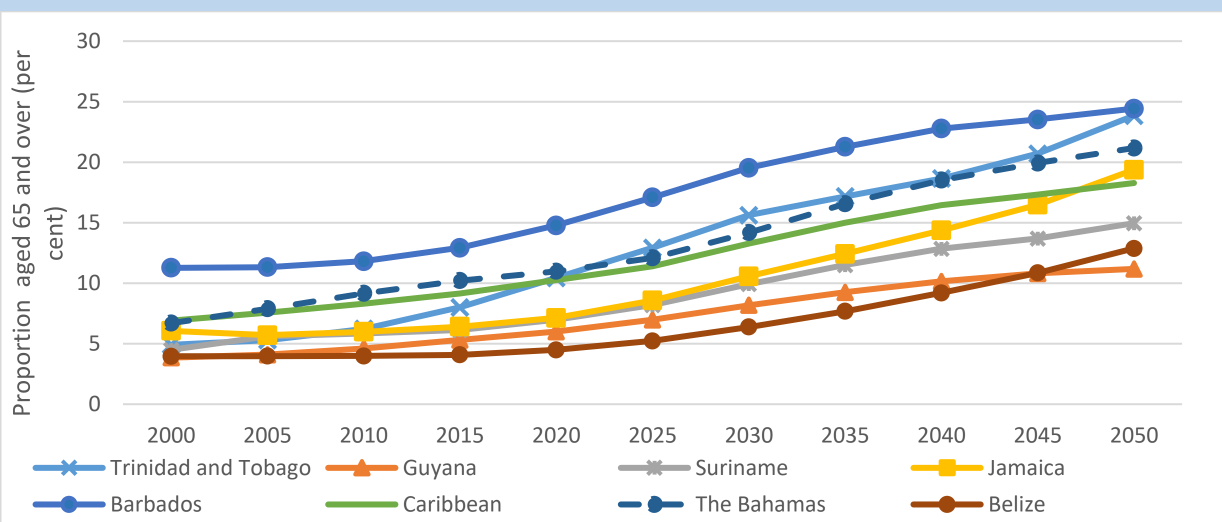
In summary, while the insurance sector is adequately capitalised, there are emerging challenges in terms of profitability in the life and non-life segments. Closer monitoring of this situation is therefore advisable, given the vulnerability of the region to weather-related risks, rising premiums for re-insurance and phenomena such as the ageing of the population

The management of pension funds is an important element for life insurance companies in the Caribbean. Insurance companies also offer retirement annuities, serving as both underwriters and pension fund managers. The dynamics affecting pensions are therefore important for financial stability. This is especially so in countries where occupational pension plans are the dominant vehicles for pension arrangements in the private and public sectors. Insurance companies in some countries can manage between 30-60 per cent of pension fund assets in the Caribbean. In this context, it is very important to understand how demographic factors such as ageing populations could impact the pension industry and financial stability. Box 2.1 explores this issue in a little more detail.

Box 2.1: Ageing Demographics and the Stability of Pension Funds in the Caribbean

Over the last 20 years, almost every country in the Caribbean has experienced a shift in demographics towards an ageing society. According to the United Nations, World Population Prospects 2024, the over-65 years population in the Caribbean region grew from 2.6 million (or 6.9 per cent) in 2000 to 4.8 million (10.8 per cent) in 2023. Some regional countries are experiencing a more advanced ageing process than others. Barbados, for example, recorded the highest proportion of its population aged 65 years and over in 2023 (16.1 per cent), followed by Trinidad and Tobago (11.9 per cent). However, Belize recorded the lowest proportion of the population aged 65 years and over (4.8 per cent) in 2023 (Figure A). Furthermore, relative to Africa (3.6 per cent), Asia (9.8 per cent), and the world (9.9 per cent, the Caribbean has a higher proportion of its population aged 65 years and over.

Figure A: Proportion of population aged 65 and over in selected Caribbean countries, 2000-2050

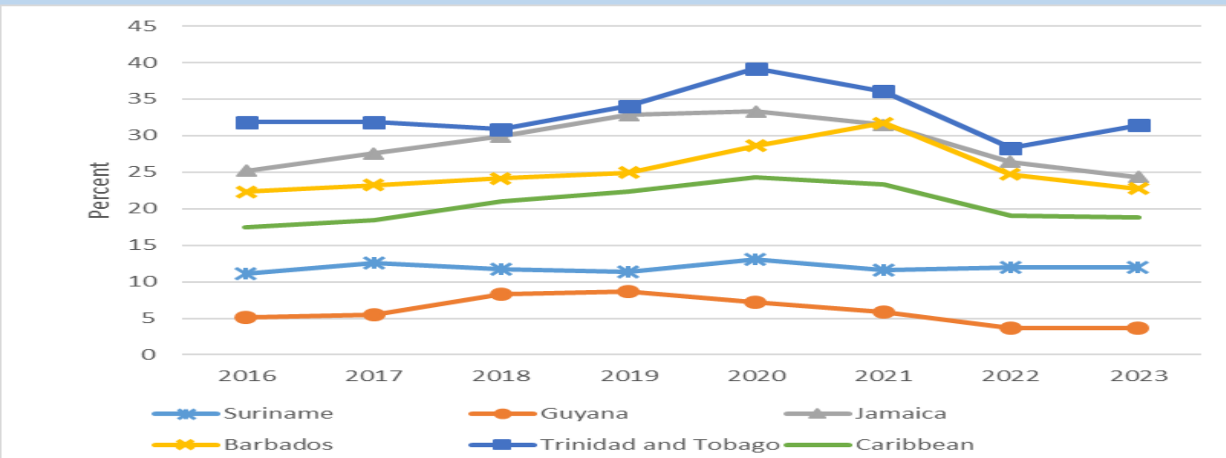


Source: United Nations, World Population Prospects (2024)

The support ratio, the number of individuals in the working-age population earning income that can support persons over age 65, is a cause for concern as it has been trending downward in the Caribbean. According to UN data, in 2000, the ratio was 8.7 to 1, but by 2023, the ratio had declined to 7.6 to 1. Moreover, support ratios are projected to fall to extremely low levels across countries in the region in the future, with the average ratio expected to fall to 4.5 to 1 by 2050[4].

Population ageing poses significant challenges for the future financial position of pension plans in the Caribbean. Private occupational pension funds have a significant presence in Caribbean economies, having accumulated substantial assets over the years. Based on available and published data, private pension assets, as a proportion of gross domestic product, stood at 20.6 per cent in 2023. Similarly, pension assets as a proportion of total financial system assets also grew on average from 11.5 per cent at the end of 2016 to 12.0 per cent in 2023 (Figure B).

Figure B: Private Pension Plans, Assets as a Proportion of Gross Domestic Product 2016-2023
In selected Caribbean countries *



Note: Data for Suriname for 2023 was estimated.
Source: Various Central Banks' Financial Stability Reports

At the end of 2023, pension sectors in regional economies were dominated by defined benefit (DB) plans, where the retirement benefit is based on the number of years in service. This characteristic is primarily the result of DB plans being in existence for several decades, allowing for an extended period of asset growth. However, in recent years, several countries in the region have been gradually shifting toward defined-contribution (DC) plans, where the retirement payout depends heavily on savings and assets accumulated by the worker and the performance of assets allocated to investments. DC plans aim to transfer the financial risk from the provider to the worker.

An ageing population increases the liabilities of DB private pension funds that do not adequately adjust for longer life expectancy. The main impact of ageing on pensions is that increased longevity lengthens the time persons remain in retirement to collect benefits, increasing the liabilities of DB pension plans (Antolin, 2007)[5]. The uncertainty

[4] Data for 15 regional countries, Antigua and Barbuda, The Bahamas, Belize, Dominica, Grenada, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, Barbados, Guyana, Suriname, Trinidad and Tobago, and Saint. Vincent and the Grenadines

[5] Antolin, P. (2007). Longevity Risk and Private Pensions. OECD Working Papers on Insurance and Private Pensions, No. 3.

surrounding longevity risk can result in private DB pension plans becoming unable to provide the benefits they promise to their members.

The ageing population may also impact the value of assets held by DB private pensions. The impact of population ageing on pensions is mainly through financial markets, particularly portfolio allocation and return on investments. With the increasing necessity to provide the promised benefits to retirees, pension providers may have to reallocate investments to assets that yield high returns, potentially increasing the risk profile of pension plans. Depending on the age profile of members, some pension funds may have to forego investments in long-term high-yielding assets due to the need to hold more liquid assets to meet payout obligations. Further, through the broader economy, population ageing may affect financial markets. For instance, an ageing population may lead to decreased employment rates and potential GDP, which can reduce savings and investment and lead to increased interest rates in the future. It may also reduce the future value of assets held in pension funds. Sustainability challenges could arise if pension funds cannot liquidate assets in response to declining prices. An ageing population may also exacerbate fiscal positions and debt sustainability challenges in economies, adversely impacting pension funds that are heavily exposed to government assets.

The rise in the number of retirees, compared to those of working age, could generate major financial challenges for publicly administered or national insurance schemes in the Caribbean. For instance, in Belize, Barbados, Guyana, and Trinidad and Tobago, national insurance schemes could become financially challenged as pension expenditure increases significantly over the next two decades due to ageing. Already, national insurance schemes in Barbados and Trinidad and Tobago have been experiencing a declining number of contributors alongside a rising number of pensioners and pension payouts, partly due to the issue of an ageing population. Measures such as increasing the retirement age and/or contribution rates are needed to improve their financial viability. Other measures include improving the population coverage and freezing benefits. Caribbean countries have already increased contribution rates and insurable wage ceilings within the last decade. In 2016, Trinidad and Tobago increased contribution rates for its national insurance scheme. Jamaica raised the retirement age for its national insurance scheme from 60 to 65 in 2021. Belize also raised contribution rates and the insurable wage ceiling for public pension plans in 2022. Barbados' retirement age was raised from 65 to 67 in 2018, and the qualifying age for early pension was moved from 60 to 61 in 2025. These insurance schemes form a key part of regional economies' financial systems, and their success or failure has wider financial stability implications. Protecting these schemes from experiencing deficits or depleting their asset base should become a policy priority for regional governments.

Potential reform measures to mitigate the adverse effects of population ageing on the future financial viability of pension funds include;

- transitioning to DC plans,
- increasing the contribution rates,
- increasing the retirement age,
- regularisation of contract employment, and
- raising financial literacy and inclusion.

Transitioning to DC plans could shift some of the risks associated with an ageing population away from pension plans and onto individuals. However, the ability of DC plans to provide sufficient retirement incomes is dependent on several factors, including the efficiency of allocation of assets and returns on investments, worker contribution, contribution period, and the length of retirement, which depends on the retirement age and longevity. Nations adopting DC schemes may need to design the payout phase to balance flexibility and longevity risk. Also, pension funds must be well-managed in terms of risk appetite, asset allocation, and governance to reduce the risk of significant financial losses that could place pensioners at risk of income loss during retirement. Monitoring the health and stability of pensions will be paramount, given the ongoing issue of population ageing.

The transition to DC plans and population ageing can also significantly affect capital markets in various regional economies. People will need to save more to maintain a steady income stream during retirement. As DC plans become more prevalent in countries, the demand for fixed-income assets will likely increase. Financial markets will have to be appropriately developed to efficiently allocate assets, provide sufficient returns, handle asset price fluctuations, and provide adequate quantities of appropriate assets to hedge against other financial risks, in addition to longevity risks. Capital markets could therefore benefit from the increased availability of very long-term bonds. Providing long-term bonds will also enable insurance companies to create annuity products for individuals to increase their savings through investment in annuities. Regulators in the region may need to manage any potential adverse impact of recent reforms (for example, the liquidity coverage ratio, which calls for holding more high-quality liquid assets) on the availability of long-term bonds for uptake by pension funds.

Raising contribution rates can improve pension funds' financial sustainability in the context of an ageing population by increasing the inflow of assets to meet long-term liabilities. In the case of private pension plans, raising employer and employee contributions would assist in building a larger fund that can be invested to generate returns. Given the ongoing pace of ageing in the region, such a measure should be considered a priority.

An increase in life spans could result in a sizeable jump in pension benefits when the retirement age remains unchanged. Policymakers in the region have been proposing an increase in the retirement age as one of the solutions to ensuring that pension funds remain solvent in the future.

Regularisation of short-term contract employment or improving pension access to contract workers has tremendous potential to improve pension plan viability in the context of an ageing population. In some regional countries, contractual employment is common; expanding pension coverage and benefits to these workers could increase the number of contributors to the pension system. Limiting the use of contractual employment in favour of full-time and permanent forms of employment could also improve the number of contributors and inflows into pension funds.

Public policies may need to adapt to meet the challenge of an ageing population. For instance, policymakers could consider enhancing financial education for the population on products such as life annuities that can protect against longevity risks. This would include educating the population on the importance of savings to protect against the risk of outliving one's resources and falling into poverty. The Bank of Guyana is developing a National Pensions Awareness Programme (NPAP) to sensitise the public concerning pensions and retirement security. Central banks and governments could explore strategies to make financial products such as annuities more appealing to mitigate the adverse effects of an ageing population and improve the financial viability of pensions. Certain countries in the region have already introduced fiscal policies, such as tax incentives (e.g. deferred taxation) for investment in annuities or government securities. However, further review of these policies could reveal opportunities to enhance their appeal.

Finally, improving financial inclusion can help pension schemes remain financially viable while addressing the ageing population issue. More persons (mainly from the informal business sectors) having access to formal financial services might lead to higher levels of private savings and lessen the strain on governments to provide public pensions.

2.4 Composite Indicators of Financial Stability

This section attempts to assess the state of financial stability in the region using composite indices - the Banking Stability Index (BSI) and the Aggregate Financial Stability Index (AFSI) for individual Caribbean countries. Each jurisdiction uses a different composition of indicators, weights and assumptions to produce its BSI and AFSI. Notably, there are fewer cross-country differences in the construction of the BSI than there are for the ASFI.

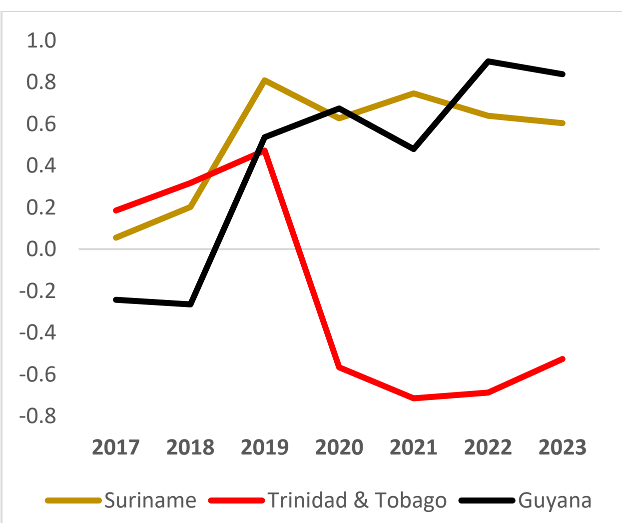
The BSI measures the financial stability of banks in a single index by taking a weighted average of normalised financial stability indicators. The AFSI is intended to assess the stability of a wider segment of the financial system. It is generated as a weighted average of normalised macroeconomic and financial stability variables, within four major sub-indices: Financial Development (FD), Financial Vulnerability (FV), Financial Soundness (FS), and the World Economic Climate (WEC). For both the BSI and AFSI, a higher value suggests increased financial stability, while a lower value signals a decline in stability.

Banking Stability Index (BSI)

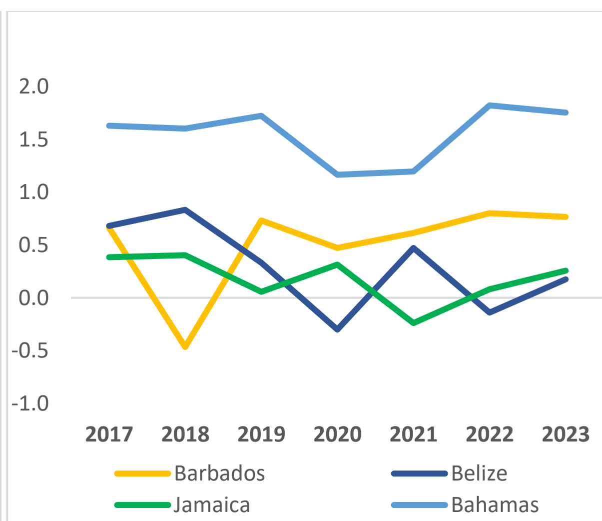
The BSI performance across the reporting countries was mixed. By the end of 2023, BSI for Guyana, Suriname, The Bahamas and Barbados deteriorated relative to the levels recorded at the same point in 2022 (Figure 2.14). These declines were largely driven by lower liquidity and profitability. Though trending in the right direction after descending to a negative position in 2020, Trinidad and Tobago's BSI was the only negative stability index recorded by the reporting countries at the end of 2023. Together, the banking sectors in Trinidad and Tobago, Belize and Jamaica all registered improved BSIs in 2023, mainly on account of greater profitability, credit quality and capital adequacy.

Figure 2.14: Banking Stability Index for Caribbean Economies, 2017 – 2023

A: Commodity-Based Economies



B: Service-Based Economies

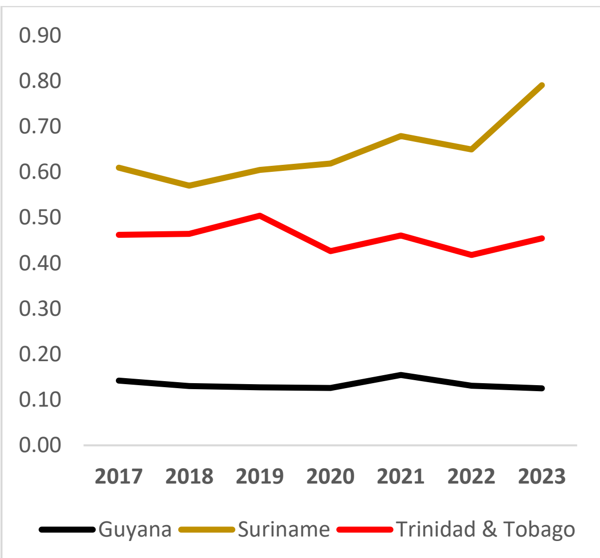


Aggregate Financial Stability Index (AFSI)

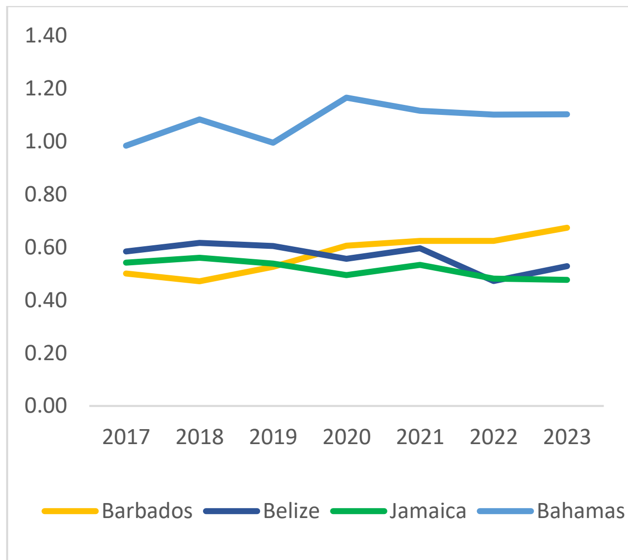
The performance of the AFSI was generally positive across the reporting countries. Of the reporting jurisdictions, the AFSI only weakened marginally in 2023 for Guyana and Jamaica. Guyana's slightly lower ASFI stemmed from a reduction in the financial vulnerability sub-index relative to 2022, while Jamaica experienced declines in the financial soundness and financial development sub-indices (Figure 2.15). The world's economic climate (WEC) was a major stabilising element of the AFSI across the region in 2023. Overall, the movement of the WEC sub-index reflected the improved world economic conditions in 2023 compared to 2022, thanks to the abatement of global inflation and stock market volatility.

Figure 2.15: Aggregate Financial Stability Index for Caribbean Economies, 2017 – 2023

A: Commodity-Based Economies



B: Service-Based Economies



CHAPTER 3: CARIBBEAN DEPOSIT-TAKING FINANCIAL INSTITUTIONS' RISK ASSESSMENT

3.1 Overview

Following the 2008 global financial crisis, regulatory reporting requirements for the financial sector, particularly for banks, underwent significant reforms, with heightened emphasis on stress testing and capital adequacy. These reforms were principally driven by the enactment of the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act, which promoted a more rigorous and comprehensive approach to risk assessment and capital management across the banking industry.

Stress testing, widely acknowledged as a cornerstone of prudential oversight, has seen accelerated evolution, particularly with the rising prominence of cyber and climate-related risks. Its utility has rendered it a critical tool in fulfilling both micro- and macroprudential objectives. The banking sector has consequently embraced increasingly sophisticated and integrated stress-testing frameworks, which aim to assess a broad array of solvency and liquidity risks, inclusive of complex spillover effects across institutions.

The Basel III framework remains the global benchmark for banking regulation. It mandates, inter alia, robust documentation of capital adequacy and the application of stress testing under a variety of crisis scenarios. The global applicability of Basel III underscores the interconnectedness of modern financial systems and reinforces the imperative for sound risk management practices to support systemic financial stability.

Table 3.1: Risk Assessed in Regional Stress Test

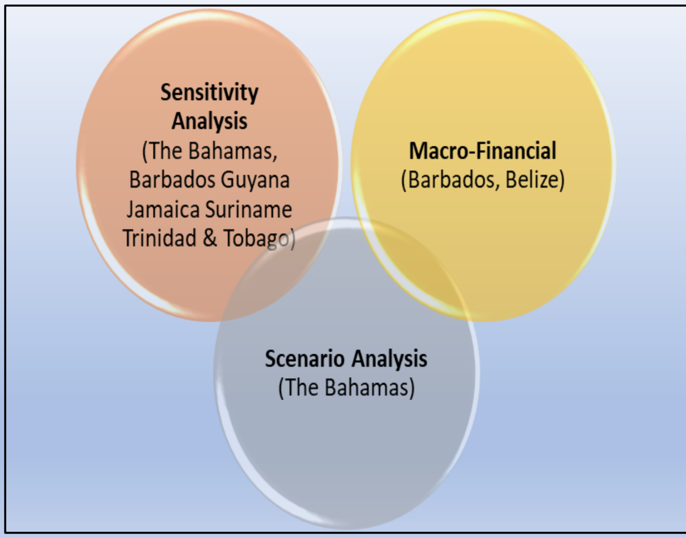
Credit Risk	Market Risk	Liquidity Risk
The Bahamas	The Bahamas	The Bahamas
Barbados	Guyana	Barbados
Belize	Jamaica	Guyana
Guyana	Suriname	Jamaica
Jamaica	Trinidad & Tobago	Suriname
Suriname		Trinidad & Tobago
Trinidad & Tobago		

In the Caribbean, jurisdictional diversity has led to a heterogeneous application of stress-testing methodologies to evaluate systemic risk. While most territories continue to employ a combination of sensitivity and scenario analyses, two jurisdictions have advanced their frameworks to include macro-financial stress testing. Across the region, the primary focus remains on three core risk areas: credit, market, and liquidity. Stress tests are adapted to reflect the unique economic and financial structures of individual jurisdictions (see Table 3.1).

3.2 Update to Regional Stress Testing Frameworks

During the 2022–2023 period, stress testing in the Caribbean remained primarily concentrated on credit, market, and liquidity risks. Notable enhancements to supervisory toolkits included the incorporation of macro-financial stress testing, as well as refinements to sensitivity-based risk assessments. The Central Banks of Barbados and Belize expanded their toolkits by integrating macro-financial stress testing during the review period. These tests employed macroeconomic scenarios and credit risk satellite models to forecast non-performing loans and assess their projected impact on the balance sheets, income statements, and capital adequacy of deposit-taking institutions.

Figure 3.1: Types of Stress Test Conducted



Three scenarios were evaluated: a "baseline" scenario grounded in macroeconomic model projections; and two adverse scenarios, a "moderate" and a "severe", which represented varying magnitudes of exogenous shocks. The testing horizon spanned three years (12 quarters) and included deposit-taking institutions such as commercial banks, finance companies, and credit unions.

In Belize, the exercise was restricted to commercial banks. In contrast, Barbados witnessed a collaborative initiative between the Central Bank and the Financial Services Commission, encompassing commercial banks, finance companies, and credit unions.

Jamaica revised its interest rate stress test by reducing the magnitude of shocks to better align with the prevailing high-interest rate environment. Meanwhile, Suriname increased the run-off rates applied in its liquidity stress tests, thereby introducing a higher level of severity into the assessment framework.

Stress testing methodologies in the remaining jurisdictions remained unchanged relative to the previous reporting cycle.

3.3 Regional Stress Test Results

3.3.1 Macro-Financial Stress Test

The macro-financial stress test conducted by Belize in 2022 revealed that one domestic bank fell below the minimum capital adequacy requirement under both the moderate and severe stress scenarios. These scenarios projected required capital injections amounting to approximately US$20 million. However, by

2023, all domestic banks demonstrated improved resilience, maintaining capital levels above the minimum capital adequacy threshold and requiring no additional capital injections.

In Barbados, the multi-factor macro-financial stress test was conducted over a three-year horizon. The test estimated changes in the stock of loan losses, average annual credit loss rates, and the subsequent impact on capital adequacy. Unlike Belize, capital injections were estimated as a percentage of GDP rather than in nominal local currency terms.

For commercial banks and finance companies, the results indicated relatively minor loan losses under the baseline scenario. In contrast, loan losses increased significantly under the severe scenario, with provisions rising by approximately fivefold over the three years, compared to a 1 per cent increase in the baseline. This led to an estimated average annual credit loss rate of 4 per cent.

While some individual deposit-taking institutions (DTIs) showed vulnerabilities in Tier I capital levels, the sector-wide Tier I CAR only declined in the severe scenario but remained above the regulatory minimum of 4 per cent. Two institutions recorded CARs below the minimum requirement and required capital injections totalling less than 1 per cent of GDP. Nonetheless, the findings suggest that the sector remains broadly resilient to economic shocks, supported by relatively high CARs and strong pre-provision profitability.

The credit union sector, regulated by the Financial Services Commission (FSC), also demonstrated general resilience to adverse macroeconomic developments, maintaining capital levels above the 4 per cent hurdle rate (measured as total capital to non-risk-weighted assets). In the baseline scenario, the sector's capital ratio remained unchanged, while moderate and severe scenarios revealed some vulnerabilities, necessitating total capital injections of less than 1 per cent of GDP over the projection period. Despite incurring losses in the moderate and severe scenarios, credit unions maintained modest profitability relative to banks and finance companies.

3.3.2 Credit Risk Stress Test

Large Borrowers

Four jurisdictions conducted large borrower stress tests during the review period: Barbados, Guyana, Suriname, and Trinidad and Tobago. The stress tests in Barbados, Guyana, and Suriname assumed the sequential failure of the five largest borrowers in each institution, analysing the impact on individual CARs and the aggregate sectoral CAR. In Trinidad and Tobago, the stress test evaluated institutional vulnerability to asset quality deterioration in the most concentrated areas of exposure, focusing on the top three exposure groups per institution.

The Central Bank of Barbados' 2022 test found that three banks fell below the prudential capital minimum in the first round, while one finance company failed by the fifth round. Under the assumption of 100 per cent provisioning, an additional bank and a second finance company experienced capital depletion, with CARs falling below regulatory thresholds. The 2023 stress test, which incorporated government exposures, yielded similar results: 50 per cent provisioning led to the failure of one finance company from the first round. However, under this assumption, the remaining institutions were able to withstand the default of their five largest borrowers. With 100 per cent provisioning, a fourth bank's CAR dropped below the 8 per cent minimum by the fifth round.

Barbados also employed the capital-to-assets method. Under this framework, only one bank and three finance companies could withstand full losses on their top five exposures. When provisioning was set at 10 per cent and the regulatory threshold at 4 per cent, all institutions passed. However, at 50 per cent provisioning, three banks and one finance company fell below the minimum by round two, and under 100 per cent provisioning, three banks and one finance company failed in the first round, with four banks and the same finance company failing by round five. In contrast, the eight largest credit unions and smaller ones (aggregated into a composite entity) showed stronger resilience, with only one credit union falling below the 4 per cent capital requirement across all rounds.

The Bank of Guyana's results highlighted vulnerabilities stemming from defaults on the top three exposures. In 2022, four banks recorded post-stress CARs below the prudential minimum, causing the industry-wide ratio to fall beneath the threshold. This outcome persisted in 2023, with estimated capital injections of G$43 billion (US$206 million) annually required to restore compliance.

The Central Bank van Suriname's 2022 test revealed sector-wide failures under the default of the top three borrowers. However, by 2023, the sector's performance improved, withstanding all three shocks under the updated scenario.

In Trinidad and Tobago, the large exposure stress test assumed a 100 per cent downgrade of loans to the 'doubtful' category, requiring 50 per cent provisioning, along with a 50 per cent value decline in other assets. In 2022, this led to a drop in the capital ratio to 7 per cent. The exposure group accounted for 60.9 per cent of total large exposures. The 2023 test indicated continued vulnerability, with the capital ratio falling further to 6 per cent as exposure increased to 63 per cent of total large exposures.

Credit Counterparty

Three jurisdictions, Guyana, Jamaica, and Trinidad and Tobago, conducted credit counterparty risk assessments. Guyana's test examined asset quality impacts following deterioration in the investment portfolio, while Jamaica and Trinidad and Tobago assessed solvency risks stemming from declines in loan portfolio quality.

In Guyana, level 3 shock scenarios in both 2022 and 2023 revealed CARs falling below the 8 per cent prudential minimum. Required capital injections were estimated at G$18 billion (US$86 million) in 2022 and G$23 billion (US$110 million) in 2023. This persistent vulnerability was attributed to concentrated exposures in two banks, which together accounted for 66 per cent of the sector's investment portfolio in 2023.

The Bank of Jamaica's credit counterparty stress test simulated a 20 per cent increase in non-performing loans (NPLs), driven by tighter monetary policy. Despite the adverse scenario, the deposit-taking sector demonstrated resilience in both years, supported by robust capital buffers.

The Central Bank of Trinidad and Tobago's stress test assumed the following loan migration:

- 10 per cent of current and 1–3 month past due loans shifted to the 3–6 month past due category;
- 25 per cent of loans past due 3–6 months aged to 6–12 months; and
- 100 per cent of loans past due 6–12 months aged to over 12 months.

The associated provisioning rates were:

- 6 per cent for current, 1-month, and 1–3 month past due loans;
- 20 per cent for loans past due 3–6 months;
- 50 per cent for loans past due 6–12 months;
- 100 per cent for loans past due over 12 months.

Results for both 2022 and 2023 demonstrated a resilient commercial banking sector, with CARs remaining above the regulatory minimum. Loan deferral and restructuring programs introduced during the COVID-19 pandemic helped mitigate the impact of higher NPLs, even after the expiration of these relief measures in September 2022.

Economic Sector

The Central Bank of The Bahamas conducted a credit risk stress test using extreme but plausible scenarios to assess the sufficiency of domestic systemically important banks' (DSIBs) capital to withstand various levels of shocks to non-performing loans (NPLs) under predetermined economic conditions. In contrast, the Central Banks of Guyana and Trinidad and Tobago implemented sensitivity tests to assess the resilience of DTIs to asset quality deterioration. These tests applied single-factor shocks to selected economic sectors based on specific assumptions.

The scenario analysis by the Central Bank of The Bahamas hypothesised NPL shocks of 100 per cent, 150 per cent, and 200 per cent, estimating the consequent impacts on income and DSIBs' capital. The consolidated results for both 2022 and 2023 indicated a decline in capital levels; however, there was no requirement for capital injection in either year.

In Guyana, the credit stress test estimated the impact of credit exposure deterioration across various economic sectors on provisioning requirements and regulatory capital. The results suggested a resilient banking sector, capable of withstanding moderate shocks. A deterioration of approximately 75 per cent in the sector's credit portfolio over two years was required to reduce the capital adequacy ratio (CAR) to the prudential minimum.

The Central Bank of Trinidad and Tobago applied single-factor shocks to the top three economic sector exposures of each bank. The test assumed a 100 per cent decline in loan quality, moving loans to the ‘doubtful’ category, which necessitated additional provisioning of 50 per cent of the outstanding balance. In addition, a 50 per cent decline in value was assumed for other assets. The credit stress tests conducted for the largest sectoral exposures, including "other services", during 2022 and 2023, notably impacted capital adequacy; nonetheless, the sector passed the stress test in both years.

3.3.3 Market Risk Stress Test

Interest Rate Risk

The Central Bank of The Bahamas assessed the sensitivity of capital and profitability to interest rate changes using upward and downward shocks. The 2022 results demonstrated reduced vulnerability to interest rate movements due to robust levels of eligible capital. In 2023, the sector remained similarly resilient, largely attributable to infrequent adjustments in the Bahamian dollar prime lending rate and continued strength in capital buffers.

The Bank of Jamaica’s interest rate and equity risk stress tests evaluated the impact of a 125 basis point (bps) rise in domestic bond yields, a 100 bps rise in foreign bond yields, and a 15per cent decline in domestic equity markets. Results for 2022 and 2023 revealed that while financial sub-sectors were generally resilient, a small number of institutions were vulnerable and would require capital injections.

The Central Bank of Trinidad and Tobago measured the effect of parallel shifts in the yield curve on the economic value and earnings of institutions, using the Bank for International Settlements (BIS) duration methodology. Two interest rate scenarios were tested:

- A 500 bps upward shift.
- A 100 bps downward shift.

The 2022 and 2023 results indicated that the sector withstood the downward shock. However, the 500 bps upward shock led to CARs falling below the regulatory minimum due to maturity mismatches between assets and liabilities, particularly in the medium- to long-term bands.

Foreign Exchange Risk

Foreign exchange (FX) stress tests were undertaken in Guyana, Suriname, and Trinidad and Tobago, focusing on the capital impacts of local currency depreciation.

In Guyana, the Bank’s FX stress test assessed the capacity of commercial banks' capital to absorb adverse currency shocks. The scenario assumed moderate depreciations of 2 per cent and 5 per cent, alongside a more extreme depreciation. Results for 2022 and 2023 suggested that an 89per cent depreciation of the Guyana dollar would be required to bring two banks and the sector’s CAR to the prudential minimum.

The Central Bank van Suriname evaluated the effects of SRD depreciation against the USD and EUR under mild, adverse, and severe shock scenarios. In both 2022 and 2023, the system remained resilient. The lowest post-shock CAR recorded was 12 per cent under the severe 2022 shock.

Liquidity Risk Stress Testing

The Central Bank of The Bahamas used a maturity-based cash flow analysis to assess liquidity risk, applying a 20per cent liquidity benchmark. The results from 2022 and 2023 suggested negligible near-term liquidity risk, underpinned by high levels of liquid assets.

In Barbados, the liquidity stress tests assumed a 95per cent immediate conversion of liquid assets to cash to meet daily deposit run scenarios of 5 per cent, 10 per cent, and 15 per cent for five days. In 2022, while banks were resilient at the 5 per cent level, vulnerabilities emerged at higher levels for finance companies and credit unions. The 2023 results indicated mixed outcomes with a slight deterioration in liquidity positions among finance companies, though banks remained largely stable.

Guyana's stress test estimated how long DTIs and the sector could withstand deposit runs under scenarios combining run-off rates and alternative asset liquidity ratios (5/5, 3/7, 0/10). Both the 2022 and 2023 assessments showed the sector could endure four days under total deposit runs and 16 days under demand deposit scenarios.

The Bank of Jamaica simulated a 20 per cent withdrawal of deposits and repurchase liabilities, assessing the impact on liquid assets and the need for statutory capital drawdowns. In 2023, securities dealers exhibited more liquidity risk than DTIs, with three breaching the early warning solvency benchmark of 14 per cent.

Suriname conducted two liquidity tests. The large depositor withdrawal test showed that in 2022, one bank became illiquid after the top five depositors' SRD withdrawal. In 2023, no banks became illiquid. FX exposures were more robust, with post-shock liquidity asset ratios of 49per cent and 50per cent in 2022 and 2023, respectively.

A second Surinamese test simulated deposit outflows. The 2022 test (5 per cent for three days, 10 per cent thereafter) resulted in no illiquidity. However, in 2023, SRD withdrawals at 14per cent over five days resulted in two banks becoming illiquid. The FX test (13 per cent on Day 1, 15 per cent on Days 2–5) resulted in one illiquid bank by Day 4 and six by Day 6.

In Trinidad and Tobago, the Central Bank evaluated two scenarios under reputational shock conditions. The first included reserves and used standard run-off rates, while the second excluded reserves and applied differentiated run-off rates by deposit type. Both scenarios assumed that only 50 per cent of marketable investments could be accessed. In 2023, the time to illiquidity fell from 31 to 27 days (including reserves) and from 19 to 16 days (excluding reserves), indicating a slight weakening in liquidity resilience.

CHAPTER 4. REGIONAL SYSTEMIC RISKS

4.1 Overview

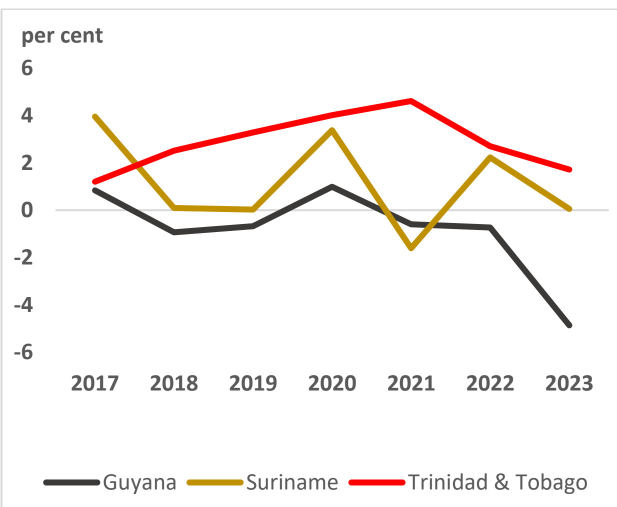
This chapter highlights key developments related to credit risk, the presence of systemically important financial institutions (SIFIs), and cross-border financial sector interconnectedness in the Caribbean over the review period (2021 to 2023). The analysis indicates that credit risk is on a downward trajectory across the Region. The number of identified domestically systemically important banks (D-SIBs) also increased in 2023 relative to 2021. At the end of 2023, Trinidad and Tobago, St. Lucia and Barbados were at the centre of financial sector interconnectedness in the Region. On average, service-based economies demonstrated greater centrality within the regional financial network than commodity-based economies.

4.2 Identification of Key Systemic Risks

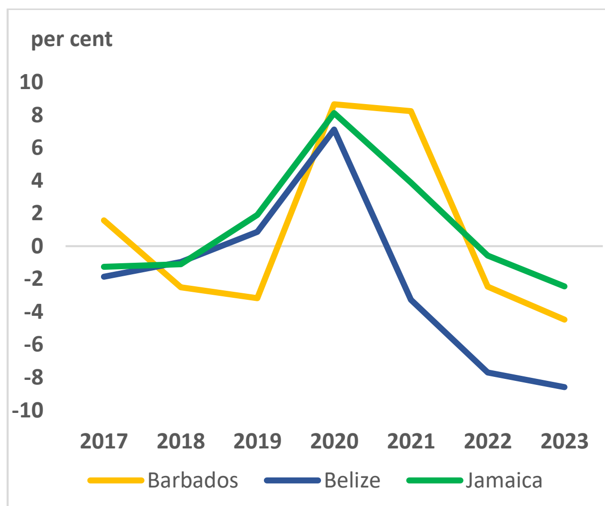
The problem with excessive credit growth is that it increases the probability of credit risk due to adverse selection**.** Based on a sample of six CARICOM countries (Barbados, Belize, Guyana, Jamaica, Suriname, and Trinidad & Tobago), excessive-credit risk as measured by the credit-to-GDP gap[6], declined during the review period for all six jurisdictions. Furthermore, all the reporting service-based economies, along with Guyana, recorded negative credit-to-GDP gaps for at least the last two years of the review period, an indication that credit risks in these jurisdictions were low.

Figure 4.1: Credit-to-GDP Gaps of DTIs in Caribbean Economies

A: Commodity-Based Economies



B: Service-Based Economies



Trinidad & Tobago and Suriname did record positive credit-to-GDP gaps of 1.7 and 0.06 percentage points, respectively, in 2023, but were lower compared to 2022 (See Figure 4.1). Credit risk, therefore, appears to be subdued for the region as a whole. It is noteworthy that Trinidad & Tobago's credit-to-GDP gap is

[6] Here, the **credit-to-GDP gap** is the difference between the current ratio of credit from DTIs as a per cent of GDP and the long-run trend of that ratio. The long-run trend is derived by using the standard one-sided Hodrick-Prescott filter.

based solely on credit to the private sector, while the other jurisdictions calculated their credit-to-GDP gaps using DTI's credit to all sectors.

The footprint of SIFIs[7] in the region, has increased since the last Caribbean Regional Financial Stability Report. The number of identified domestically systemically important banks (D-SIBs) in CARICOM increased from approximately 26 in 2021 to 33 in 2023. At the end of 2023, The Bahamas and the Eastern Caribbean Currency Union ECCU had the highest number of designated D-SIBs, representing 100 per cent of the commercial banks in The Bahamas and about 42 per cent of the 24 commercial banks that operate in the ECCU. Suriname reported the number of D-SIBs at four out of its nine commercial banks. Belize, Guyana and Jamaica all reported having three D-SIBs in 2023, but from a total of four assessed DTIs in Belize, eight in Guyana, and eleven in Jamaica (See Table 4.1).

Table 4.1: Number of D-SIBs Across Reporting Countries

Reporting Countries	**2021**	**2022**	**2023**
Bahamas, The	9	10	10
Barbados	NA	NA	NA
Belize	3	3	3
ECCU	4	3	10
Guyana	3	3	3
Jamaica	3	3	3
Suriname	4	4	4
Trinidad & Tobago*	NA	NA	NA
Total	26	26	33

Source: The Central Banks of the Reporting Countries
*Before 2024, the Central Bank of Trinidad and Tobago identified D-SIBs based on internal criteria.
However, an official framework to identify these institutions became effective on January 1, 2024, which nullified all previously identified D-SIBs.

The asset growth of D-SIBs was relatively stable for the region. The assets of D-SIBs in Belize, Guyana and Jamaica increased moderately over the review period. On the other hand, assets of D-SIBs in Suriname and The Bahamas declined slightly in 2023 relative to 2022 (Figure 4.2A). However, when the assets are analysed as a percentage of the total assets of the assessed DTI sectors, the story changes. In all countries for which data is available, the asset share of D-SIBs in the total banking sector assets was over 60 per cent in all jurisdictions and at 100 per cent in The Bahamas (Figure 4.2B).

Notably, for each reporting country except Jamaica, the ratio of D-SIBs' assets to the total assets of assessed DTIs did not increase in 2023 relative to 2022. The ratios for Belize, Guyana and Suriname declined slightly, while the ratio for The Bahamas remained unchanged at 100 per cent. For Jamaica, the increase in the market share of systemically important DTIs was small. This suggests that domestic

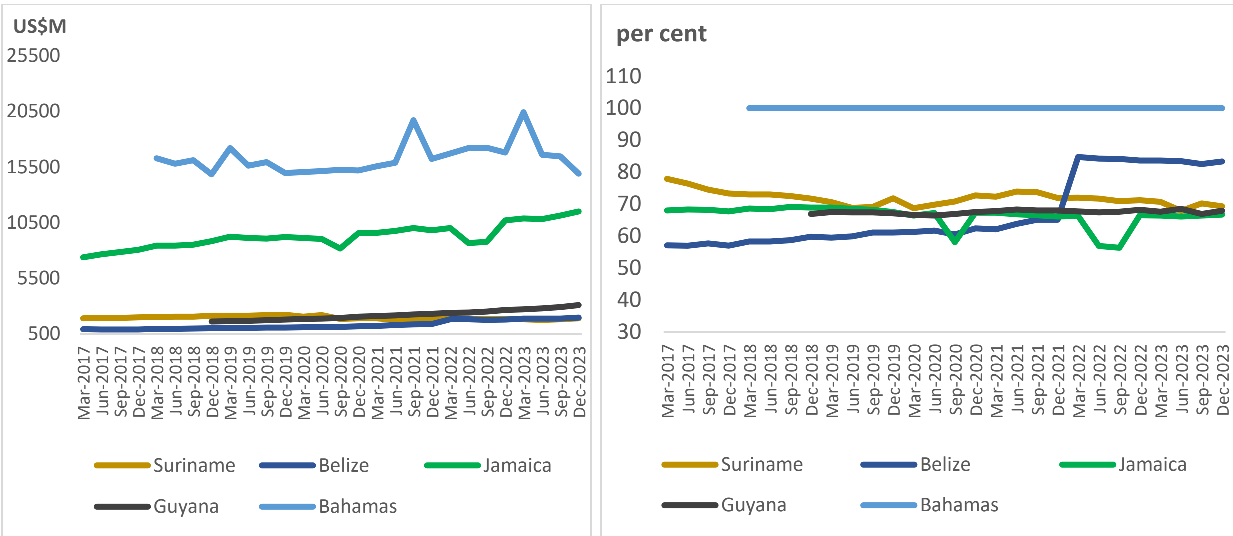
[7] SIFIs are financial institutions whose failure can trigger significant disruptions to other financial corporations and ultimately threaten economic and financial stability due to their size, lack of substitutability, complexity and interconnectedness.

contagion risk has not increased in the region. Nevertheless, the large footprint of D-SIBS in all jurisdictions does continue to warrant closer monitoring of this class of financial institutions.

Figure 4.2: Trends in Assets of Caribbean D-SIBs, Mar 2017 - December 2023

A: Assets of D-SIBs

B: D-SIBs' Assets to Total Banking Assets



Source: The Central Banks of the Reporting Countries

The Bahamas was the only territory to report insurance company SIFIs. The Insurance Commission of The Bahamas has identified 12 insurance SIFIs out of the 29 domestic insurance companies registered in The Bahamas at the end of 2023. The number of insurance SIFIs has held steady at 12 since 2020, when the figure increased from 11.

4.3 Exposure to Cross-Border Financial Sectors

External exposures can pose significant and complex risks to domestic financial systems due to the direct and indirect nature of cross-border contagion channels. SIFIs can potentially amplify financial instability during cross-border contagion episodes, as any shock could be amplified due to the connectivity to other domestic and regional financial institutions. Cross-border exposures varied considerably across the Caribbean region. In this assessment, cross-border exposure is measured by claims on non-resident financial corporations[8] as a percentage of the investors' total assets – effectively a measure of relative exposure. Claims on foreign financial corporations comprise equity, debt instruments (debt securities, deposits, loans, and accounts receivable) and financial derivatives.

To assess the region's exposures, an analysis of investments from DTIs and DTI holding companies of 15 Caribbean countries in foreign financial sectors was conducted for 2022 and 2023 (Table 4. 2). The exposure to foreign financial corporations fell in most jurisdictions between 2022 and 2023. The Bahamas

[8] Financial corporations include all entities except central banks covered by Section K of the International Standard Industrial Classification, Revision 4.

registered the largest decline between 2022 and 2023, a decline of 11.9 percentage points stemming primarily from a single entity's reduction in deposits in U.S. commercial banks. DTIs and DTI holding companies in Barbados were shown to have the largest exposure to foreign financial corporations, averaging 39.4 per cent, followed by Montserrat at 32.3 per cent.

Table 4.2: Asset Exposures of DTIs and DTI Holding Companies in Reporting Countries to Foreign Financial Corporations as a per cent of Total Assets

Country	Claims on Foreign Financial Corporations as a per cent of Total Assets	
	2022	2023
AIA	16.6	25.0
A&B	22.2	14.5
BAH	18.7	6.8
BRB	39.9	39.6
BLZ	12.5	13.5
DOM	26.0	29.6
GRD	23.4	22.5
GUY	9.2	8.0
JAM	6.5	5.4
MSR	33.4	31.2
SKN	21.3	17.8
SLU	12.5	15.8
SVG	15.6	12.4
SUR	N/A	19.7
T&T	8.2	7.0

Source: The Central Banks of the Reporting Countries.

Notes: 1. None of the reporting countries included credit unions in their capture of DTIs since credit unions typically do not hold foreign assets.

2. The reporting countries are made up of 14 CARICOM member states and one CARICOM associate member comprising: Anguilla (AIA), Antigua & Barbuda (A&B), The Bahamas (BAH), Barbados (BRB), Belize (BLZ), Dominica (DOM), Grenada (GRD), Guyana (GUY), Jamaica (JAM), Montserrat (MSR), St. Kitts & Nevis (SKN), St. Lucia (SLU), St. Vincent & Grenadines (SVG), Suriname (SUR), and Trinidad and Tobago (T&T). Haiti was unable to participate in the Cross-border Interconnectedness Survey.

The majority of Barbados' and Montserrat's holdings were in equity. On the other hand, Jamaica reported the lowest exposure to foreign financial corporations at an average of 5.4 per cent. Overall, the larger share of equity positions was in non-deposit-taking financial institutions (otherwise known as other financial corporations (OFCs)), while most debt instrument claims were on DTIs. Investments in foreign insurance companies featured minimally, with such assets only reported by DTIs and DTI holding companies from Trinidad & Tobago and Montserrat.

The regional financial sector is highly exposed to financial corporations in the USA, except for Barbados, Anguilla and Trinidad and Tobago. The USA was the top cross-border financial sector exposure of DTIs and DTI holding companies that operate in CARICOM (Table 4.3). Most exposures to the USA were in the form of debt instruments, particularly deposits and debt securities. However, for Montserrat, St. Kitts and Nevis and Grenada, the primary exposure to the USA was equity investments in OFCs.

The level of foreign direct investment (FDI) from Canada and Trinidad and Tobago in the regional financial sector is a key component defining financial interconnectedness in the Caribbean. Banks and financial holding companies from Canada and Trinidad and Tobago are among the most important players in the regional financial system. For instance, Barbados serves as a hub where Canadian banks have established parent companies for their regional subsidiaries. As such, there are significant equity investments that run from Canadian-owned, Barbados-based DTIs and holding companies to various financial sectors across the Caribbean. Additionally, cross-border investments of financial institutions from Trinidad and Tobago have a notable presence in Barbados and several other Caribbean countries. Specifically, the bi-directional financial sector link between Barbados and Trinidad and Tobago is strong, with this country being Barbados' single largest exposure (21.3 per cent) in 2023. On the flip side, Barbados was Trinidad and Tobago's single largest exposure at 2.2 per cent of total assets (Table 4.3). The equity investments from both Canadian and Trinidadian-owned DTIs and DTI holding companies are responsible for the strong financial sector connection between Barbados and the twin-island republic.

Table 4.3: DTIs and DTI Holding Companies' Total Claims on Foreign Financial Corporations as a percentage of their Total Assets at End-2023

	Reporting Countries														
Territory of Investment Recipient	**AIA**	**A&B**	**BAH**	**BRB**	**BLZ**	**DOM**	**GRD**	**GUY**	**JAM**	**MSR**	**SKN**	**SLU**	**SVG**	**SUR**	**T&T**
AIA		0.96	0.00	0.06	0.00	0.00	1.65	0.00	0.00	0.01	0.56	0.02	0.03	0.00	0.00
A&B	0.03		0.00	0.58	0.00	0.57	0.43	0.00	0.00	0.43	0.15	0.17	0.43	0.00	0.00
BAH	0.00	0.00		3.19	0.00	0.00	0.00	0.03	1.26	0.00	0.00	0.00	0.00	0.00	0.00
BRB	0.00	0.67	0.00		0.00	0.03	0.38	0.62	0.07	0.02	0.08	0.52	0.03	0.00	2.18
BLZ	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAN	0.00	0.00	1.57	0.11	0.00	0.00	1.18	0.19	0.23	0.03	0.00	0.51	0.00	1.84	0.09
CYM	0.00	0.00	0.04	6.41	0.11	0.00	0.00	0.84	0.02	0.00	0.00	0.00	0.00	0.00	0.00
DOM	0.00	0.01	0.00	0.02	0.00		0.45	0.00	0.00	0.06	0.01	1.56	0.04	0.00	0.02
GRD	0.00	0.31	0.00	0.03	0.00	0.36		0.00	0.00	0.00	0.09	1.44	0.05	0.00	0.24
GUY	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.03
JAM	0.00	0.06	0.34	3.93	0.00	0.00	0.48	0.61		0.18	0.18	0.05	0.00	0.00	0.04
MSR	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00		0.00	0.02	0.03	0.00	0.00
SKN	0.26	1.17	0.00	0.10	0.00	0.39	1.34	0.01	0.00	0.36		0.35	1.85	0.00	0.00
SLU	5.12	0.53	0.02	1.35	0.00	3.65	3.00	0.13	0.28	2.49	4.84		1.36	0.00	1.06
SVG	0.00	0.00	0.00	0.07	0.00	0.00	0.39	0.01	0.00	0.00	0.00	0.02		0.00	0.01
SUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.34	0.00		0.02
T&T	0.07	0.00	0.00	21.32	0.00	0.56	0.71	0.57	0.05	1.87	0.00	0.08	0.11	0.00	
UK	6.74	0.30	0.29	0.12	0.83	0.00	1.30	0.88	0.74	0.00	0.64	0.19	0.52	0.38	0.24
USA	5.33	5.82	3.60	1.74	12.39	23.34	8.01	2.68	2.73	23.20	9.94	4.97	5.91	13.04	1.56
OC	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.32
OE	0.00	0.00	0.51	0.09	0.05	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	2.60	0.82
OCW	7.49	4.67	0.43	0.12	0.15	0.70	2.77	0.67	0.03	2.55	1.28	5.60	2.07	1.79	0.38
	25.04	**14.45**	**6.80**	**39.6**	**13.52**	**29.59**	**22.47**	**7.99**	**5.41**	**31.19**	**17.77**	**15.82**	**12.43**	**19.66**	**6.99**

Source: The Central Banks of the Reporting Countries

Notes: CAN = Canada, CYM = Cayman, OC = Other Caribbean, OE = Other Europe, OCW = Other Countries in the World

Interconnectedness based on cross-border debt claims presents a somewhat different story from that of total cross-border claims. The assessment of interconnectedness via debt instruments is an attempt to analyse cross-border credit risk. Failure of a debtor to meet contractual obligations can lead to liquidity and cash flow problems for creditors. A dramatic reduction is observed in the cross-border financial sector exposure of some jurisdictions (Table 4.4).

Table 4.4: DTIs and DTI Holding Companies' Debt Instrument Claims on Foreign Financial Corporations as a percentage of their Total Assets at End-2023

	Reporting Countries														
Territory of Investment Recipient	**AIA**	**A&B**	**BAH**	**BRB**	**BLZ**	**DOM**	**GRD**	**GUY**	**JAM**	**MSR**	**SKN**	**SLU**	**SVG**	**SUR**	**T&T**
AIA		0.96	0.00	0.06	0.00	0.00	1.65	0.00	0.00	0.01	0.56	0.02	0.03	0.0	0.0
A&B	0.03		0.00	0.42	0.00	0.26	0.43	0.00	0.00	0.43	0.05	0.17	0.04	0.0	0.0
BAH	0.00	0.00		0.06	0.00	0.00	0.00	0.03	1.26	0.00	0.00	0.00	0.00	0.0	0.0
BRB	0.00	0.67	0.00		0.00	0.03	0.38	0.62	0.07	0.02	0.08	0.42	0.03	0.0	0.3
BLZ	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0
CAN	0.00	0.00	1.57	0.11	0.00	0.00	1.18	0.17	0.23	0.03	0.00	0.51	0.00	1.8	0.1
CYM	0.00	0.00	0.02	1.20	0.11	0.00	0.00	0.84	0.01	0.00	0.00	0.00	0.00	0.0	0.0
DOM	0.00	0.01	0.00	0.02	0.00		0.45	0.00	0.00	0.06	0.01	1.56	0.04	0.0	0.0
GRD	0.00	0.07	0.00	0.02	0.00	0.30		0.00	0.00	0.00	0.09	1.44	0.05	0.0	0.1
GUY	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.0	0.0
JAM	0.00	0.06	0.34	0.24	0.00	0.00	0.48	0.61		0.18	0.18	0.05	0.00	0.0	0.0
MSR	0.00	0.00	0.00	0.01	0.00	0.00	0.39	0.00	0.00		0.00	0.02	0.03	0.0	0.0
SKN	0.26	0.96	0.00	0.09	0.00	0.30	1.28	0.01	0.00	0.06		0.21	1.56	0.0	0.0
SLU	5.12	0.48	0.00	1.29	0.00	3.49	3.00	0.13	0.28	2.49	4.83		1.36	0.0	0.1
SVG	0.00	0.00	0.00	0.02	0.00	0.00	0.39	0.01	0.00	0.00	0.00	0.02		0.0	0.0
SUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00		0.0
T&T	0.07	0.00	0.00	0.60	0.00	0.56	0.71	0.51	0.05	0.86	0.00	0.08	0.11	0.0	
UK	6.74	0.30	0.29	0.12	0.83	0.00	1.30	0.88	0.74	0.00	0.00	0.19	0.52	0.4	0.2
USA	5.33	5.82	3.60	1.74	11.49	20.64	3.23	2.63	2.73	0.56	1.67	4.93	5.91	13.0	1.6
OC	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.0	0.0
OE	0.00	0.00	0.51	0.09	0.05	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	2.6	0.8
OCW	7.49	4.67	0.43	0.12	0.15	0.70	2.77	0.67	0.03	2.55	1.28	5.60	2.07	1.8	0.3
	25.04	**14.00**	**6.76**	**6.56**	**12.62**	**26.29**	**17.63**	**7.87**	**5.40**	**7.23**	**8.78**	**15.21**	**11.8**	**19.66**	**3.49**

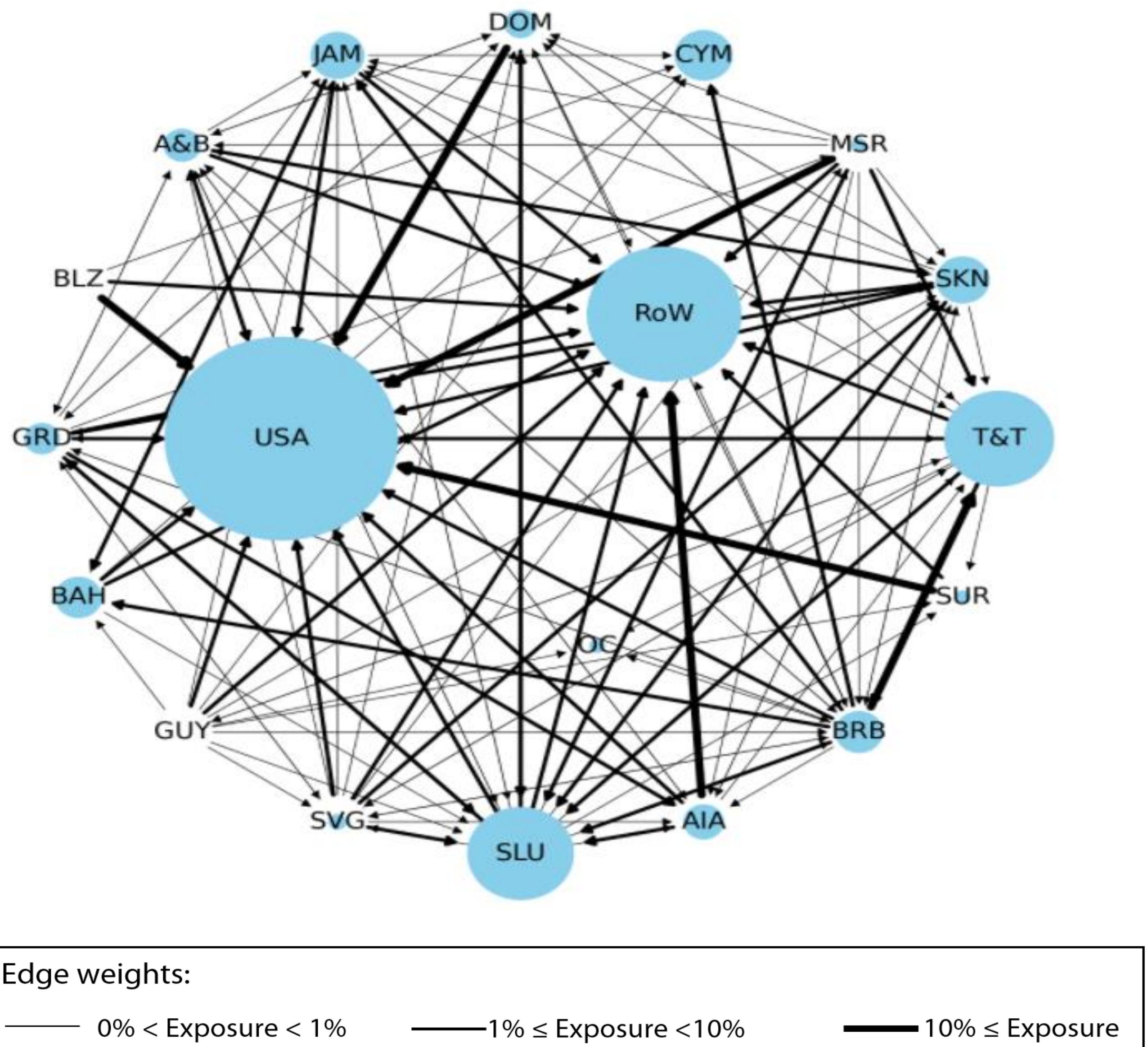
Source: The Central Banks of the Reporting Countries
Notes: CAN = Canada, CYM = Cayman, OC = Other Caribbean, OE = Other Europe, OCW = Other Countries in the World

When just debt instruments rather than total foreign assets are considered, DTIs and DTI holding companies in Barbados, Montserrat and St. Kitts and Nevis showed the greatest reductions in cross-border exposures, since equity represents the bulk of their foreign assets. The geographical composition of exposures also changed notably for these countries.

Network maps support the analysis by showing the financial sector connections between reporting countries as well as their claims on financial corporations in non-reporting jurisdictions. Figure 4.3 is a network map based on information presented in Table 4.3 (all exposures), while Figure 4.4 is a network map based on information from Table 4.4 (debt instrument exposures). The node sizes represent the average exposure of the reporting countries to that particular country or country grouping, while the edges/arrows are weighted based on the ranges of exposure to the investment recipient territory.

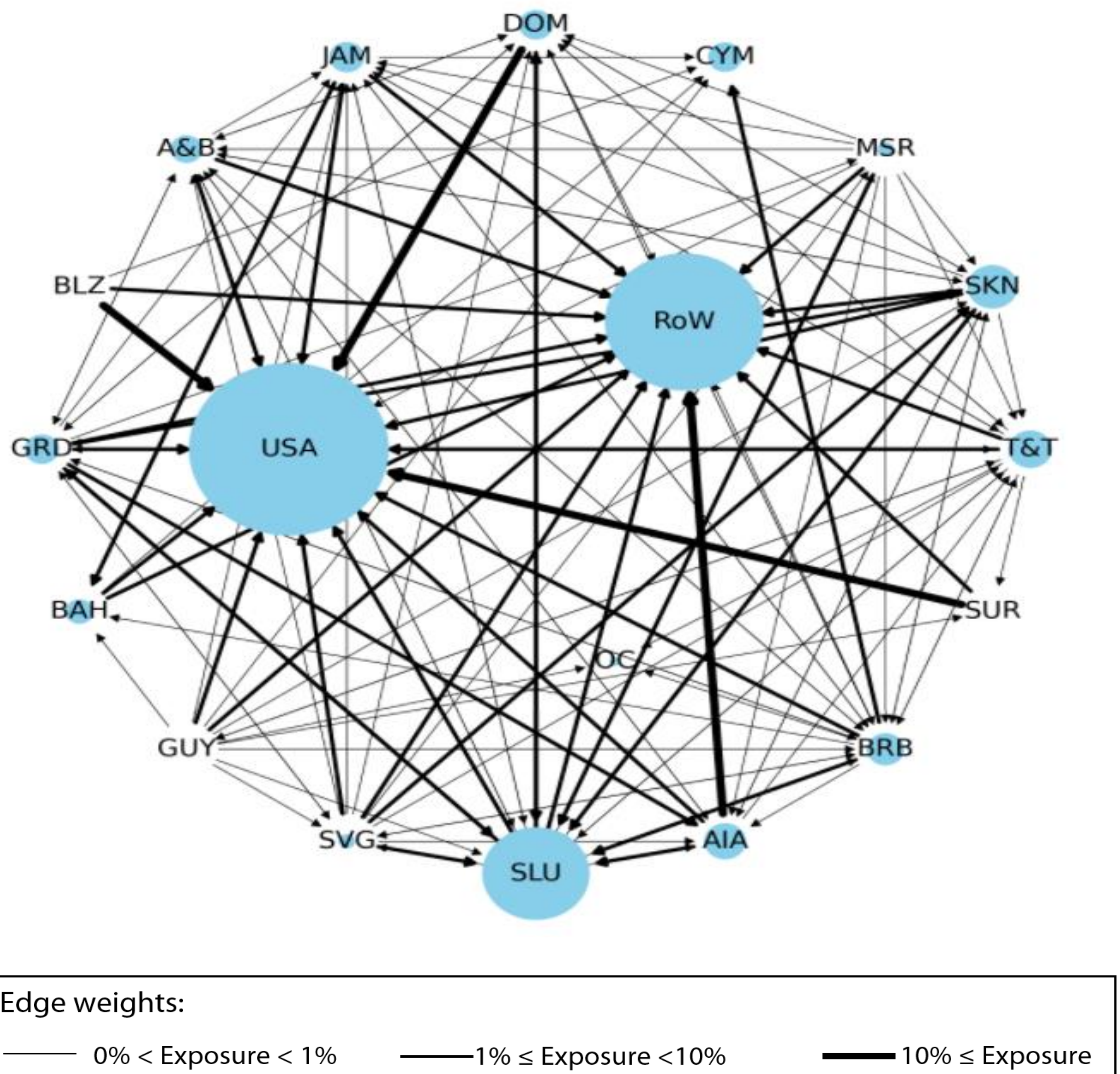
The node sizes and the weight of the edges/arrows capture the key elements of the regional financial cross-border exposure landscape. From the network maps shown in Figures 4.3 and 4.4, it is clear that regional DTIs and DTI holding companies are most exposed to financial corporations in the USA. This is evident by the relative size of the USA nodes and the number of thick arrows going to the USA nodes in both network charts. The visual differences between Figures 4.3 and 4.4 are subtle but still noteworthy. Figure 4.4 only shows debt instrument connections, and as a result, some of the nodes and edges are smaller than those of Figure 4.3, which shows the gross connection (both equity and debt). The nodes for Trinidad & Tobago, The Bahamas, Cayman, Jamaica, and Barbados are noticeably smaller in Figure 4.4 compared to Figure 4.3. This indicates that equity investment accounts for a significant portion of the reporting countries' exposure to financial corporations in the aforementioned jurisdictions.

Figure 4.3: DTIs and DTI Holding Companies' Total Claims on Foreign Financial Corporations at End-2023



Source: The Central Banks of the Reporting Countries
Note: ROW = Rest of World = CAN + UK + OE +OCW
The node size is determined by the average of the reporting countries' exposure to each investment recipient territory.

Figure 4.4: DTIs and DTI Holding Companies' Debt Instrument Claims on Foreign Financial Corporations at End-2023



Source: The Central Banks of the Reporting Countries
Note: ROW = Rest of World = CAN + UK + OE +OCW
The node size is determined by the average of the reporting countries' exposure to each investment recipient territory.

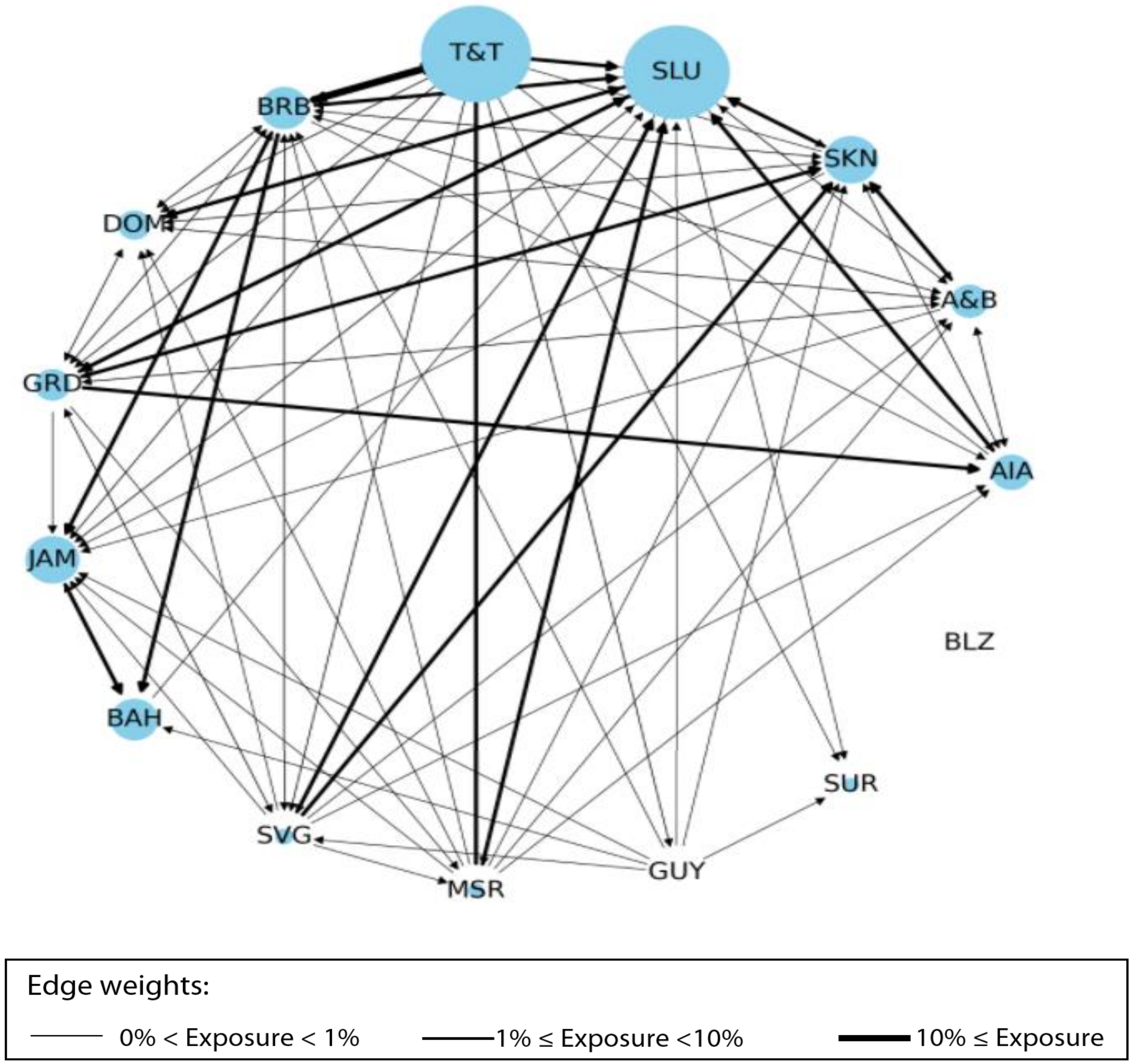
The map of only cross-border asset connections between financial corporations from the reporting countries paints a clearer picture of CARICOM financial sector integration. The financial sectors in Barbados and the countries of the Eastern Caribbean Currency Union appear to be the most interconnected amongst the 15 reporting countries (Figures 4.5 and 4.6). St. Lucia, surprisingly, is a prominent node in the CARICOM network map based on the average size of reporting countries' exposure to this jurisdiction and the number of network connections. On the other hand, financial corporations from Belize and Suriname seem to be the least regionally integrated among the reporting economies. Notably, DTIs and DTI holding companies in Belize are shown to have no connections with the financial sectors of the other reporting countries. DTIs in Suriname had a maximum of three financial sector connections from other reporting countries, and they did not have claims on financial corporations in any of the other reporting countries as of December 2023. DTIs and DTI holding companies in Barbados had the greatest exposure (30.6 per cent) to the financial sectors of other reporting countries, mainly due to equity investments of Canadian-owned institutions.

Restricting the regional network analysis to debt instrument exposures highlights the fact that financial institutions in the ECCU are more strongly connected by debt instruments rather than equity. DTIs in Grenada had the highest debt instrument exposure (9.2 per cent) to financial corporations in other reporting countries, while Barbados' exposure was 2.8 per cent, making it the ninth highest among the reporting group. Interestingly, the debt instrument exposure of Trinidadian-based DTIs and DTI holding companies to financial corporations in the other reporting countries stood at a mere 0.5 per cent, just above that of Belize and Suriname.

Based on asset exposures, the regional financial sector appears to be moderately interconnected. Figure 4.5, the CARICOM network map based on total cross-border claims, has a density of 45.7 per cent, reciprocity of 66.7 per cent and an average degree centrality of 12.8, with St. Lucia being the most central jurisdiction in terms of degree and eigenvector centrality.[9] The density metric indicates that the connections in Figure 4.3 account for 45.7 per cent of the total possible connections, while the reciprocity rate specifies that 66.7 per cent of the connections are bi-directional. The average degree centrality indicates that there is an average of 12.8 connections per node in the network. Figure 4.6, the network map with just the debt instrument connections among the reporting countries, has a density of 44.2per cent, reciprocity of 66.7 per cent and an average degree centrality of 12.4, with St. Lucia again taking the top spot of most central jurisdiction. Barbados was the second most central jurisdiction in both networks based on the degree and eigenvector centrality metrics (Table 4.6). Despite the relatively high degree of reciprocity, which can amplify and/or prolong a regional financial crisis due to feedback effects, the densities of the networks were rather moderate at rates that reside below 48 per cent. As a result, the financial contagion risk in the Caribbean region as a whole is considered modest.

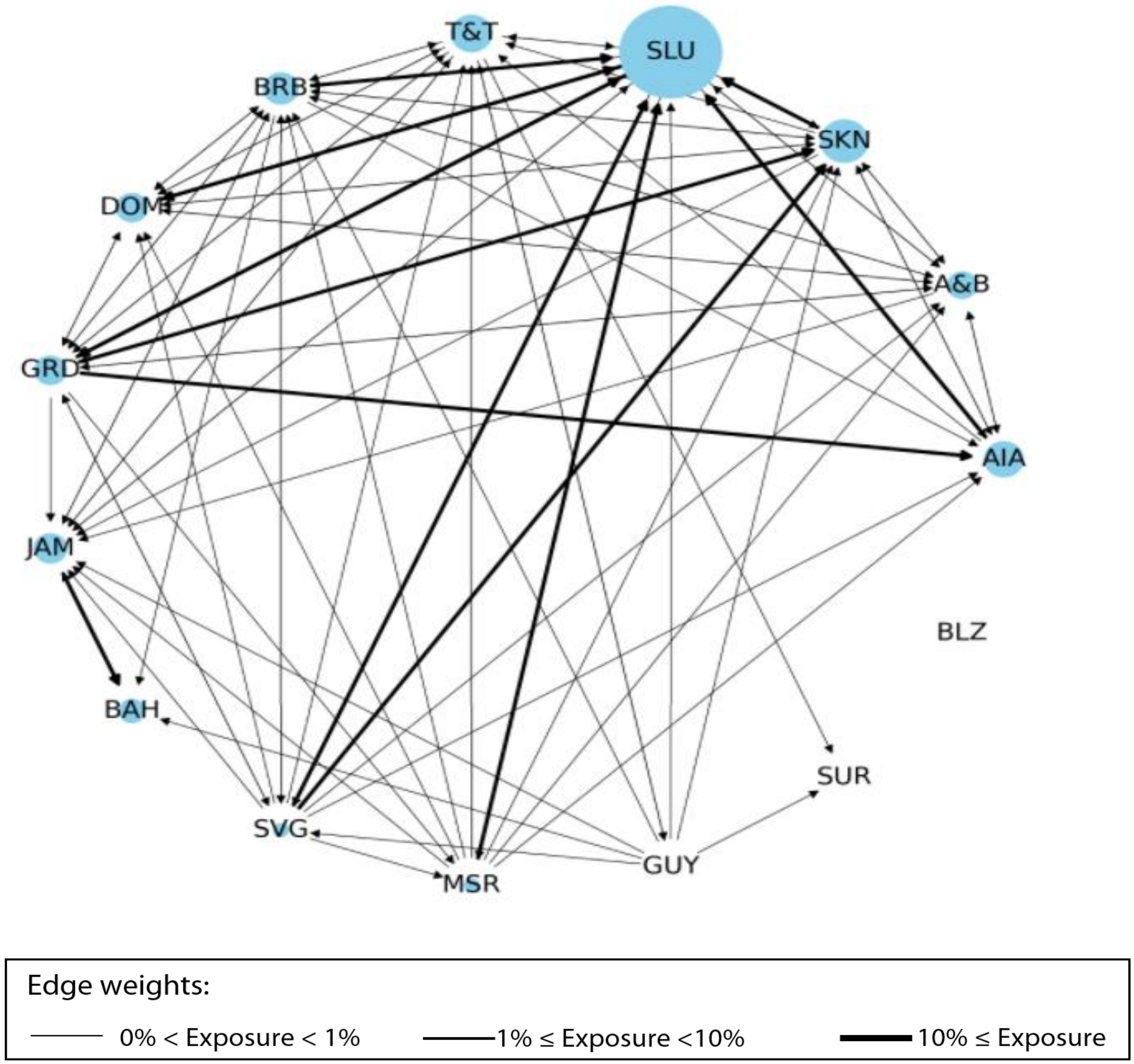
[9] Degree centrality is based on the number of edges connected to a node, whereby the node with the most connections is deemed most central. Eigenvector centrality, on the other hand, is based on the combined degree centralities of the node in question and other nodes with outward links to the node in question. Therefore, a high eigenvector centrality score suggests that a node is important based on its combined direct and indirect influence.

Figure 4.5: DTIs and DTI Holding Companies' Total Claims on Foreign Financial Corporations at End-2023 (Reporting Countries Only)



Source: The Central Banks of the Reporting Countries
Note: ROW = Rest of World = CAN + UK + OE +OCW
The node size is determined by the average of the reporting countries' exposure to each investment recipient territory.

Figure. 4.6: DTIs and DTI Holding Companies' Debt Instrument Claims on Foreign Financial Corporations at End-2023 (Reporting Countries Only)



Source: The Central Banks of the Reporting Countries
Note: ROW = Rest of World = CAN + UK + OE +OCW
The node size is determined by the average of the reporting countries' exposure to each investment recipient territory.

Table 4.6: Centrality of Reporting Countries: Total Claims and Debt Instruments Network (Figures 4.5 and 4.6)

	Total Claims		Debt Instruments	
	Degree Centrality	**Eigenvector Centrality**	**Degree Centrality**	**Eigenvector Centrality**
AIA	0.79	0.26	0.79	0.26
A&B	1.07	0.30	1.07	0.30
BAH	1.00	0.33	1.00	0.33
BRB	1.43	0.35	1.43	0.36
BLZ	0.79	0.12	0.79	0.11
DOM	1.00	0.31	1.00	0.31
GRD	1.21	0.29	1.21	0.30
GUY	0.64	0.05	0.64	0.05
JAM	1.00	0.33	1.00	0.33
MSR	1.07	0.19	1.00	0.15
SKN	1.21	0.30	1.21	0.31
SLU	1.64	0.39	1.50	0.39
SVG	1.07	0.19	1.00	0.15
SUR	0.21	0.11	0.14	0.06
T&T	1.29	0.35	1.21	0.35

Source: Python Calculations

The network analysis highlighted some potential geographical risks to the regional financial sector. Given the substantial exposure of regional DTI and DTI holding companies to U.S. financial corporations, economic and financial turmoil in the U.S. can hurt the financial system of the Caribbean. The economic and financial sector health of Canada is also very critical to the region since most of the larger banks in the Caribbean are Canadian-owned. Trinidad and Tobago is another critical jurisdiction because Trinidadian-owned corporations are significant stakeholders in the regional financial sector. St. Lucia is the most central jurisdiction in the regional banking sector, and financial corporations in St. Lucia are recipients of notable investments from the rest of the regional financial sector. Therefore, St. Lucia must not be overlooked in the context of Caribbean financial stability.

In the case of Barbados, while a key player in the Caribbean financial landscape, the DTIs and DTI holding companies from the other reporting countries have relatively low exposures to financial corporations in Barbados. As such, the potential financial sector risks from Barbados appear to be on the lower end of the spectrum. Overall, DTIs and DTI holding companies in service-based Caribbean economies had more direct exposures to foreign financial corporations than their counterparts in the commodity-based economies. Additionally, service-based economies were, on average, the most central jurisdictions in the regional financial sector.

CHAPTER 5: POLICY INITIATIVES FOR MAINTAINING FINANCIAL STABILITY

5.1 Overview of Policy Initiatives

The Caribbean has been systematically improving its regional financial stability architecture over time. The pace of these developments accelerated after the failure of CL Financial in 2009, a financial crisis which highlighted the importance of a regional approach to financial risk assessment and management in a financially interconnected region. These improvements have served the region well and helped significantly in the successful navigation of the unprecedented shock of the COVID-19 pandemic.

In the aftermath of the pandemic, the Caribbean remains disproportionately impacted by international shocks because of its small size and geographic location. The Caribbean is also highly vulnerable to climate risks, including frequent and increasingly intense natural disasters. This is exacerbated by de-risking and stricter international standards for AML, CFT, and capital adequacy, stretching the region's resources. The rise of Fintech offers both innovative opportunities and regulatory challenges. Furthermore, increased interconnectedness in the financial system boosts efficiency but also heightens contagion risks. These factors necessitate a comprehensive and adaptive regulatory approach for financial stability in the Caribbean.

In this context, the Caribbean continues to strengthen its financial system by updating AML/ CFT frameworks, establishing Fintech infrastructure, and enhancing oversight for key financial institutions. The region is aligning its standards with Basel guidelines, modernising payment systems, and conducting NRAs to address emerging risks. These reforms aim to improve financial stability, regulatory compliance, and resilience.

5.2 Financial Stability Policy Responses

5.2.1 Fintech Ecosystem

The significance of financial technology in the financial sector, the rapid digitalisation following the pandemic, and the rising incidence of cyber-attacks have necessitated that countries in the Region focus on developing a supportive environment and regulatory framework for Fintech. Many jurisdictions are working on their systems to address private digital currencies, conducting Fintech-based experiments and studies, pilot projects, and launching central bank digital currencies.

The Central Bank of Trinidad and Tobago (CBTT) continues to manage the Joint Regulatory Innovation Hub (the Hub). The Hub serves as an information platform for the public to access and make enquiries about Fintech. Since its inception in 2020, the Central Bank, the Trinidad and Tobago Securities and Exchange Commission (TTSEC), and the Financial Intelligence Unit of Trinidad and Tobago (FIUTT) have engaged over 80 entities. Out of these, 13 entities have submitted applications for registration as E-Money Issuers (11) and Payment Service Providers (2). Additionally, several entities have made enquiries about providing products such as cryptocurrencies and crowdfunding. In 2023, the CBTT continued work on the development of a modern, flexible, and comprehensive Draft Payments Systems and Services Bill ("the Bill") and three (3) accompanying Regulations - (1) Payment Systems and Services (Licensing, Supervision and Oversight) Regulations; (2) Payment Systems and Services (Safeguarding of User Funds) Regulations; and (3) Payment Systems and Services (E-Money) Regulations. The proposed legislative framework would enable the Central Bank to regulate, supervise, and oversee a broader scope of fintech activities, non-bank payment service providers, and payment system operators, along with their associated risks. This is expected to be submitted for review in parliament in 2024.

The Eastern Caribbean Central Bank (ECCB) has done extensive work in the development and testing of the applications through which the ECCB will issue its Central Bank Digital Currency (CBDC). These apps have benefited from feedback provided through extensive collaborative engagements with various key stakeholders, including financial institutions, merchants, government agencies and focus end-user groups. The ECCB's live pilot was launched in March 2021, and by the end of 2021, the pilot was expected to have been implemented in all member countries. The pilot concluded with 21 financial institutions participating voluntarily, comprising 10 credit unions and 11 commercial banks. Despite the strong participation from financial institutions, encouraging user adoption required ongoing strategic efforts. The challenges related to user adoption have highlighted the importance of user-centric design in planning for the future commercial deployment of the DCash (ECCB's digital currency) system. Building on the insights from the DCash Pilot, the ECCB has started gathering requirements for DCash 2.0 by issuing a Request for Vendor Information in December 2023. This RFI has received responses from numerous technology developers, including leaders in the CBDC technology industry. The ECCB will continue gathering requirements for DCash 2.0 through stakeholder engagements involving Fintech developers, ECCU governments, and financial institutions, before issuing a Request for Proposal in 2024.

For Suriname, there are major efforts and increasing interest in promoting digital financial services, FinTech solutions, and enhancing financial inclusion, particularly for the unbanked population. The government and CBvS are actively exploring digital solutions such as mobile payments and e-wallets to provide access to financial services for underserved communities. While the ultimate objective is digital transformation, there are considerable challenges in infrastructure, culture, and regulation that must be addressed to achieve widespread adoption. A draft ACT will be prepared for submission to parliament in 2024.

5.2.2 Anti-Money Laundering and Countering the Financing of Terrorism

During the period 2022-2023, several Caribbean nations made considerable updates to their Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) regulations and frameworks. The Central Bank of Aruba (CBA) concentrated on formulating legislation to create a prudential framework for Virtual Assets Service Providers (VASPs) and broaden the definition of VASPs to align with FATF standards. Suriname worked on revising its AML/CFT Directive of 2016 to align with the Financial Action Task Force (FATF) recommendations and Basel standards, anticipating re-issuance in March 2024. On 27 December

2023, Montserrat transferred AML/CFT supervisory authority for institutions licensed under the Banking Act, 2015, to the ECCB under section 157 of the Proceeds of Crime Act. The ECCB is now the AML/CFT/CPF supervisory authority in Antigua and Barbuda, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Montserrat. The ECCB provided technical assistance to member countries, including comprehensive assessments of AML/CFT risks and on-site training on the implementation of the World Bank AML/CFT regulatory framework. As of December 2022, microcredit institutions have been incorporated into the Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) regime. Additionally, risk-based supervision, monitoring, and regulation of all DNFBs/DNFIs, including the gaming sector, public accountants, and the real estate sector, have been implemented by the Bank of Jamaica (BOJ). The BOJ published Jamaica's NRA, identifying vulnerabilities and threats to the country's AML and CFT regime. In 2023, the RBS approach enabled efficient AML/CFT/CFP monitoring by optimising supervisory resources to assess each entity's compliance framework, considering its inherent risk and impact on financial system stability.

5.2.3 Implementation of the Basel II and III Capital Frameworks for Banks

The CBA is preparing to introduce a new reporting framework for banks, known as the New Chart of Accounts, which will incorporate Basel II Capital standards. Meanwhile, Suriname is evaluating its current liquidity risk regulations to ensure compliance with Basel III standards. In Trinidad and Tobago, the Central Bank advanced its implementation of Basel II/III capital frameworks throughout the year. Notably, the Leverage Ratio, Capital Conservation Buffer, and Domestic Systemically Important Bank capital add-on were designed to be enacted from January 1, 2024, following an October 2023 notice by the Minister of Finance. Concurrently, the Bank issued guidelines on the Leverage Ratio and the D-SIB Framework.

The Eastern Caribbean Central Bank (ECCB) has benefited from CARTAC's technical assistance for Basel II/III implementation, achieving key milestones with the full implementation of Phase I expected by the third quarter of 2023-2024 and Phase II by June 2024. The efforts include finalising the new Basel II/III prudential return, conducting pilot tests, and preparing for live reporting. In 2022, the Bank of Jamaica focused on advancing its supervisory and regulatory frameworks, primarily through the Phase I implementation of the Basel III Framework, aimed at enhancing the resilience of the financial system by ensuring that deposit-taking institutions (DTIs) meet international capital standards. The Bank also began formulating proposals for the Liquidity Coverage Ratio and revised Minimum Capital Adequacy Requirements. The passage of the Microcredit Act, 2021, expanded the Bank's supervisory scope to include microcredit institutions, aimed at mitigating money laundering and financing of terrorism risks. Additionally, the Bank promoted local, regional, and international cooperation to enhance prudential supervision and address emerging global financial risks. The Basel III Phase II and Phase III implementations are slated for completion by the December 2025 quarter.

5.2.4 Consolidated Regulation

The Region is continuing to enhance its SIFI identification and its respective regulatory frameworks. A regional consolidated supervision working group, led by Jamaica, was formed in 2021 to enhance cooperation and collaboration among local and regional regulatory authorities. This Working Group has been developing a regionally consolidated supervisory framework document with guidance from CARTAC.

In December 2022, the BOJ finalised and published the Consultation on the Proposed Standard of Sound Practice on Fitness & Propriety (for institutions regulated under the Banking Services Act, 2014). The updates allowed for a more robust Standard as the fit & proper suitability requirements were strengthened to allow for greater comprehensiveness in completing fit & proper assessments. The BOJ issued a Supervisory Guidance on “Corporate Governance: Board Oversight” in July 2023, outlining the minimum supervisory expectations that DTIs must include in their governance frameworks due to their role in maintaining the financial system's safety and soundness.

5.2.5 Financial Architecture

The CBA continues to utilise the I-Pago system that was introduced in 2020, enabling instant payments between bank accounts in the local currency, with all banks participating. The Bahamas' payment system includes The Bahamas Interbank Settlement System (BISS) Real Time Gross Settlement (RTGS) Scheme and the Automated Clearing House (ACH), meeting international standards of safety and efficiency. Barbados' payment system remains robust, with the launch of the real-time processing system (RTP) in 2023 and the transition to a digital cheque clearing system by 2024. Guyana has seen significant growth in digital financial services since 2021, with the establishment of the Guyana Real-Time Gross Settlement (G-RTGS) system, the Guyana Central Securities Depository (G-CSD) system, and the upgrade of the Guyana Automated Clearing House (G-ACH) system. Suriname's National Payment System includes the Retail Payment System, Foreign Exchange Settlement system, and Securities Settlement Systems.
The Eastern Caribbean Central Bank (ECCB) has significantly modernised the payment and settlement systems in the ECCU over the past 15 years. The Payment System and Services Bill was developed to introduce comprehensive licensing and regulations for non-bank payment services, enhancing consumer protection and financial inclusion. Additionally, the ECCB is projected to end its DCash Pilot in January 2024, which is anticipated to provide critical insights into deploying a retail central bank digital currency (CBDC) for the ECCU and culminate in plans for DCash 2.0. In Trinidad and Tobago, the volume and value of electronic payments increased in 2023 as the economy recovered from the COVID-19 pandemic. The CBTT continued to develop a modern legislative framework to regulate a wider range of fintech activities and payment service providers.

The BOJ focused on mitigating systemic risk and improving the payment, clearing, and settlement framework in 2023. Key achievements included expanding the JAM-DEX® ecosystem with new merchant strategies and onboarding additional wallet providers. The Cabinet approved amendments to the Payment Clearing and Settlement Act of 2010, enhancing supervisory powers over Payment Service

Providers (PSPs) and Financial Market Infrastructures (FMIs). Efforts also began to adopt ISO 20022 standards in retail payment systems to enhance data capturing from financial institutions.

5.3 Policy Recommendations

The Caribbean has acted swiftly to mitigate the negative impacts of emerging risks and maintain financial stability. However, there are areas for improvement in policy response, particularly in obtaining more frequent, granular, and comprehensive information to inform central bank policy. The availability of real-time information on non-bank financial institutions, in particular, remains a challenge in some jurisdictions. The Region should focus on key jurisdictions that could disrupt the financial system and prioritise interconnectedness data, as interconnectedness increases over time. Institution-specific information is also crucial for developing interconnectedness maps. Additionally, developments in the household, real estate, and corporate sectors should be incorporated into the data collection system. The collection of indicators related to climate risks is urgent due to the Region's vulnerability. The development of data release calendars at all central banks will help streamline the collection and development of regional databases on financial stability

The analytical framework for financial stability analysis in the Caribbean requires enhancement due to the Region's inherent heterogeneity. Developing Caribbean-specific thresholds for financial stability indicators, beyond which financial risks become imprudent, would enhance the sophistication and accuracy of financial risk assessments.

Regional central banks should establish a structured sequence of intervention options to effectively manage potential shocks that could disrupt the financial system. The enhancement of the regulatory and supervisory framework for SIFIs must be expedited, and national resolution frameworks should be integrated into a cohesive regional framework. Cybersecurity protocols are increasingly crucial due to the greater reliance on electronic platforms. In this uncertain environment, regional central banks must communicate more frequently and carefully to prevent cognitive dissonance among key financial sector agents, especially in an environment often characterised by misinformation.