TECHNICAL ASSISTANCE REPORT

GRENADA

Systemic Risk Monitoring

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Prepared By

Petr Jakubik

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Executive Summary

The mission aimed to build capacity to monitor and assess systemic risk for nonbank financial institutions in the Grenada Authority for the Regulation of Financial Institutions (GARFIN). The four-day mission provided training on essential elements of financial stability and macroprudential policy, measuring financial stability, credit risk and stress testing for credit unions, insurance & pension balance sheets and corresponding financial stability risks, and essential elements of climate risk and interconnectedness and contagion risk. Moreover, the mission discussed available relevant data sources and their management. In addition, it explored the resilience of the nonbank financial sector and the current progress on stress testing.

Macroprudential mandate and the cooperation with the ECCB must be clarified, and the macroprudential work conducted accordingly. GARFIN is responsible for regulating and supervising the nonbank financial sector in Grenada. The banking sector is supervised directly by the Eastern Caribbean Central Bank (ECCB). The implicit financial stability mandate for the entire ECCU financial system lies with the ECCB through Article 4(3) of the ECCB's Agreement. However, the related legislation is still being drafted and is expected to expand this to a more explicit mandate. However, only aggregate data covering the nonbank sector in Grenada are reported to the ECCB, which does not allow for the complete monitoring of systemic risk. At the same time, GARFIN is not currently conducting macroprudential work. According to the clarification of the macroprudential mandate, the macroprudential work needs to be conducted thoroughly by the ECCB, which access individual data, or by GARFIN.

The mission provided several recommendations to GARFIN. They covered technical work on systemic risk, including stress testing, staff capacity, regular publication, communication of key financial stability indicators, identified risks, data sources, and their management. Those outcomes take into account the structure of the organization and the composition of the financial system in Grenada. The financial system is dominated by banks (68% of the total financial system assets [TFA]) and credit unions (19% of TFA), but other segments of the financial system are also significant – insurance companies (8% of TFA), and pension funds (4% of TFA).

GARFIN should consider extending the existing Annual Report and Accounts covering key financial stability indicators and their assessment. This addition should include all available key indicators that could help to assess systemic risk for the nonbanking sector in Grenada. It should contain a short description of the risks based on the provided indicators and a description of essential elements of the regulation that enable the reader to understand how to interpret displayed indicators and statistics. It should cover financial stability risks for the nonbanking financial sector linked to the macroeconomic environment. In this context, the cooperation with the ECCB should be clarified and intensified. If the ECCB publishes the mentioned assessment, GARFIN would not need to publish it. Moreover, GARFIN should set up a regular and structural macroprudential discussion on key financial stability risks with the Ministry of Finance.

Depending on the clarification of macroprudential mandate, the staff capacity might need to be enhanced to cover macroprudential work. The two key teams responsible for the institution's core activities have eight staff members. The Nonbank Credit Institutions and Money Services Supervision Team has four staff members; the Insurance and Pension Supervision Team has four staff members and one open position. The teams primarily need to cover supervisory tasks. Hence, including financial stability tasks in addition to the current activities is challenging compared to regulatory/supervisory authorities with dedicated teams working only on financial stability issues. Moreover, the existing staff is not experienced in macroprudential work. This potential gap could be filled by hiring additional headcount(s) with appropriate skills, particularly a macroeconomic background combined with strong quantitative skills. The targeted training for the existing staff could further enhance the staff capacity.

GARFIN should regularly conduct a top-down stress test for credit unions, and the results should be published on an annual basis. The methodology was developed in the past and supported by CARTAC technical assistance. Still, the current team was not involved in this work and is unfamiliar with the existing templates. In the medium term, GARFIN could move towards a dynamic balance sheet approach with explicit macroeconomic scenarios and a longer stress test horizon. A CARTAC technical assistance could facilitate this in the future. Moreover, a solvency assessment of the insurance sector should be conducted, and the results should be published annually. Potential cooperation with the ECCB in this matter should be envisaged depending on the clarification of the macroprudential mandate.

The existing reporting templates for the nonbanking sector should be revised to reflect better systemic risk. GARFIN should review the existing templates for data reporting to ensure that the requested data covers systemic risk. Additional important missing information should be included, e.g., information on the duration of assets and liabilities. Moreover, regular survey(s) covering nonbanking institutions could be considered to obtain a forward-looking financial stability assessment.

Potential new data sources to be utilized for financial stability purposes should be explored. GARFIN should explore other data sources available outside the institution that could be used for macroprudential work. The institution could also consider using high-frequency market data.

Data management is clearly a limiting factor for GARFIN in pursuing its financial stability agenda. Data are currently stored in Excel format and are manipulated manually. Supervised firms submit data in Excel spreadsheets, and the information is manually copied into one Excel file where data are stored. Any more advanced data manipulation that is needed is highly time-consuming. GARFIN is currently in the process of finding a provider for a data management system. The solution chosen must allow for advanced data queries serving financial stability purposes. Hence, a mirror database for statistical purposes with an analytical tool enabling the processing of large data must be part of such a solution.

GARFIN should engage with the ECCB on the potential utilization of a credit bureau. The ECCB is preparing an implementation plan to set up a credit bureau to cover the Eastern Caribbean Currency Union (ECCU). It would be beneficial to discuss the technical solution with the ECCB, allowing GARFIN to access all Grenada data for supervisory and financial stability purposes. Hence, GARFIN would need to be able to process different queries to calculate key financial stability indicators, such as the probability of default (PD) or loss given default (LGD) for different portfolios (e.g., mortgages, consumer loans, etc.).

Recommendations	Priority	Timeframe[1]
Technical work on systemic risk monitoring		
1. Macroprudential mandate and the cooperation with the ECCB must be clarified, and the macroprudential work conducted accordingly.	High	Near term
2. Solvency stress tests for the credit union sector should be regularly conducted, and the results should be published annually.	High	Near term
3. A solvency assessment of the insurance sector should be conducted, and the results published annually.	Medium	Medium term

[1]Near term: < 12 months; Medium term: 12 to 24 months.

Recommendations	Priority	Timeframe[1]
4. Climate risk should be incorporated into the prudential agenda.	Medium	Medium term
Communication of key financial stability risks		
5. An extension of the existing Annual Report and Accounts covering key financial stability indicators and their assessment should be considered.	Medium	Medium term
6. A macroprudential discussion/cooperation with the ECCB should be intensified.	High	Near term
7. A regular and structural macroprudential discussion on key financial stability risks with the Ministry of Finance (Statistical and Economic Department) and supervised sectors should be established.	High	Near term
8. The key financial stability risks should be communicated via GARFIN's website, social media, and interaction with the press.	Medium	Medium term
Staff capacity		
9. Depending on the clarification of macroprudential mandate, the staff capacity might need to be enhanced to cover macroprudential work. In this respect, additional headcount(s) to deal with macorpudential analyses and assessments with good knowledge of macro-finance, strong quantitative skills, and an ability to work with large data should be considered.	High	Medium term
Data sources and their management		
10. The existing reporting templates for the nonbanking sector should be revised to reflect better systemic risk (e.g., information on durations should be included), and the data reported should allow cross-sectoral comparison.	High	Near term
11. A data management system allowing the processing of large data for financial stability purposes should be established.	High	Medium term
12. The GARFIN should engage with the ECCB on the potential utilization of the ECCB credit bureau.	High	Medium term
13. Potential new data sources to be utilized for financial stability purposes should be explored (e.g., market and macroeconomic data/projections).	High	Medium term

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Preface

At the request of the Grenada Authority for the Regulation of Financial Institutions (GARFIN), a CARTAC mission was conducted in person from May 2 to May 5, 2023, to assist the authority in building up capacity to set up financial stability analyses and assessments for nonbank financial institutions.

Mr. Petr Jakubik (LTX) conducted the mission. The mission met with the Executive Director, Mr. Denis Felix; the Manager of Human Resources/Administration and International Financial Services Supervision, Ms. Bethann George-Buckmire; the Manager of Nonbank Credit Institutions and Money Services Supervision, Ms. Kizzy Simon; the Manager of Insurance and Pension Supervision Ms. Josephine Julien-Phillip, and all three teams contributing to the financial stability agenda. The mission wishes to thank all staff for their cooperation and productive discussions.

Acronyms and Abbreviations

CARTAC . Caribbean Regional Technical Assistance Centre

ECCB...... Eastern Caribbean Central Bank

ECCU ..... Eastern Caribbean Currency Union

GARFIN .. Grenada Authority for the Regulation of Financial Institutions

LGD .... Loss Given Default

LTV .... Loan to Value Ratio

NBC .... Nonbank Credit Institutions/Money Services Department

IPS .... Insurance & Pension Supervision Department

NPLs....... Non-performing loans

PD........... Probability of Default

TFA......... Total Financial Assets

I. Introduction

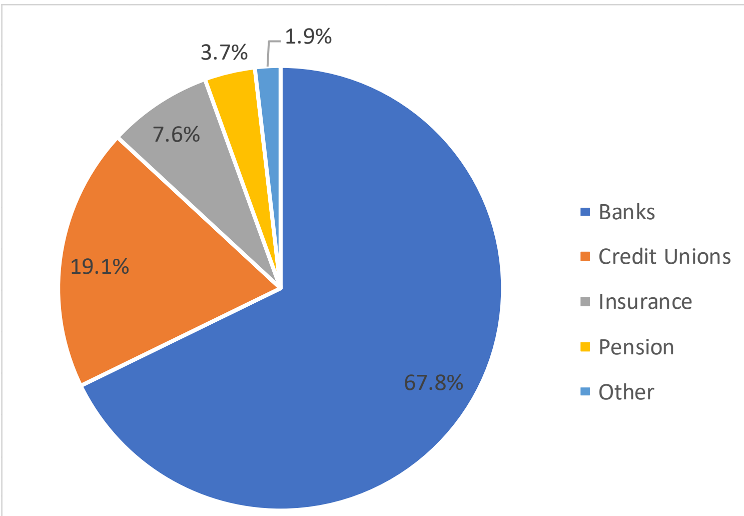
1. **The mission aimed to build up capacity to monitor and assess systemic risk for nonbank financial institutions in the Grenada Authority for the Regulation of Financial Institutions (GARFIN).** The mission consisted of a three-day workshop and a one-day discussion with the teams. It covered essential elements of financial stability and macroprudential policy, measuring financial stability, credit risk, stress testing for credit unions, insurance & pension balance sheets and corresponding financial stability risks, essential elements of climate risk and interconnectedness, and contagion risk. Currently, only Excel is used to process and analyze supervisory data, so the workshop also provided examples of usual financial tasks solved via Excel. Finally, the mission discussed extensively existing as well as potential new data sources to be utilized for financial stability purposes. It further focused on data management in terms of the current practices and optimal solutions. In addition, it explored the resilience of the nonbank financial sector and the recent progress in stress testing.

2. **Grenada is simultaneously navigating the recovery from the pandemic and rising energy and food prices.** Growth is estimated to have reached 6.4% in 2022, driven by a tourism rebound and private and public construction projects. Inflation rose from 1.9% at the end of 2021 to 2.9% by 2022. The authorities' policy response, facilitated by the build-up of fiscal buffers over the past decade, dampened the pass-through from rising global food and fuel prices. Public debt is now back on a downward trend. The financial sector is well-capitalized and liquid, although non-performing loans of credit unions have risen. The economy is projected to grow by 3.9% in 2023, led by activity in tourism-related sectors. Inflation is expected to peak toward the end of the year, ending 2023 at 3.2%. Downside risks include an economic slowdown of crucial tourist source markets, renewed global food and fuel price increases, a natural disaster, or an abrupt decline in revenues from the Citizenship-by-Investment program. On the upside, strong demand for services in advanced economies could make for even more robust tourism inflows, and investment projects may have a more frontloaded economic impact.

3. **Banks dominate Grenada's financial system, but insurance companies and credit unions are also significant.** This composition helped identify priorities and the required effort. Total financial assets in Grenada's financial system represented 207% of GDP at the end of 2022. The financial sector is primarily based on deposit-taking institutions, specifically banks (68% of TFA) and credit unions (19% of TFA). However, other financial institutions also play an important role, specifically insurance companies (8% of TFA) and pension funds (4% of TFA). As of December 31, 2021, GARFIN provided oversight of the following registered entities:
    a. 10 credit unions and an Apex Body with total consolidated assets amounting to $1.2 billion.
    b. 26 insurance companies with total assets amounting to $497.3 million.
    c. 48 pension fund plans with total assets amounting to $229 million.
    d. 2 money transmission businesses.
    e. 6 Micro Lending businesses.
    f. 1 Development Bank with assets amounting to $99.9 million.
    g. 1 Building Society with assets amounting to $18.6 million.
    h. 79 schools savings unions with total savings amounting to approximately $1.9 million.
    i. 7 functional Friendly Societies.
    j. 50 International Business Companies (IBCs). *During the year, these companies were effectively transitioned under the Companies Act 1994 due to the repeal of the International Companies Act Cap 152.*

    Credit unions account for one-fifth of deposits and one-third of loans. They support financial inclusion (with 84,000 members) and increase access to consumer credit and mortgages. The sector is highly concentrated in the three largest credit unions. They jointly accounted for 88% of total loans in 2022Q4. Most borrowing was for houses, home furnishing, land, and vehicle purchases. The insurance sector is smaller, with 12 life insurers (about 60% of insurers' assets) and 14 non-life insurers.

FIGURE 1. Distribution of Financial Sector Assets



Source: GARFIN and ECCB, end-2022 data.

4. **Credit risk is the key challenge for credit unions.** NPLs rose significantly during the pandemic before a stabilization in 2023. NPLs delinquent for more than 90 days rose from 4.5% in 2019Q4 to 9.7% in 2022Q3, falling to 8.4% in 2022Q4. These increases were driven by the largest credit unions. They occurred mainly after the expiration of loan moratorium programs at the end of 2021, while smaller credit unions had elevated NPLs even before the pandemic. A potential downside economic scenario with a significant increase of NPLs and distress of large credit unions might be an example of the most prominent transmission channel for systemic risk materialization via nonbanks in Grenada.

5. **The COVID-19 crisis revealed some operational weaknesses in the insurance sector.** However, they have been similar to their peers, and insurers have overcome those issues over time. The company has not faced significant solvency issues, even during the COVID period. Hence, the potential contribution of the insurance sector to systemic risk materialization is more limited compared to credit unions. However, as the insurance sector's risk-based regulatory framework is not in place, risks cannot be fully foreseen.

6. **The mission took into account the organizational structure of GARFIN.** An Executive Director heads the institution, which consists of three key departments that should interact with macroprudential issues – Nonbank Credit Institutions/Money Services (NBC), Insurance & Pension Supervision (IPS), and HR/Admin & International Financial Services Supervision. The two key departments (NBC and IPS) covering the core responsibilities of the institution have eight staff in total (four staff members each). There is presently one ongoing vacancy for the IPS.

II. Technical work on systemic risk monitoring

7. **The macroprudential mandate and the cooperation with the ECCB must be clarified, and the macroprudential work must be conducted accordingly.** GARFIN is responsible for the regulation and supervision of the nonbank financial sector in Grenada (credit unions, insurance companies, pension funds, and other nonbanking financial institutions), representing about 67% of GDP with the primary objectives of ensuring the protection of financial consumers, the well-being of regulated entities and the maintenance of financial stability. The banking sector is supervised directly by the Eastern Caribbean Central Bank (ECCB). The implicit financial stability mandate is given through the ECCB's Agreement, Article 4(3): "to promote credit and exchange conditions and a sound financial structure which is conducive to the balanced growth and development of the economies of the territories of the participating Governments." Further, financial stability is considered a core element to maintaining the other core objectives of the ECCB. Additionally, these objectives, along with Parts II(A), Part VIII, the Payments System Act, and the Banking Act, provide for the protection of the ECCU's financial system against systemic risk and represent the ECCB's responsibility over a significant portion of the ECCU's financial system. The corresponding legislation is still being drafted and will provide for the ECCB's explicit mandate over financial stability (through a Regional Financial Stability Committee) to collect data, report on, and coordinate crisis resolution responses in the financial system.

8. **Financial stability analyses based on granular data must be conducted to capture systemic risk fully.** However, GARFIN reports only aggregate data for the nonbank sector to the ECCB, which does not allow complete follow-up on systemic risk in Grenada. At the same time, GARFIN is not currently conducting macroprudential work. Moving forward, the financial stability mandate and the cooperation with the ECCB, including data sharing, must be clarified to conduct the macroprudential work for Grenada, either comprehensively by the ECCB having access to individual data or by GARFIN.

9. **Key indicators reflecting financial stability should be regularly compiled and analyzed by GARFIN or the ECCB.** GARFIN possesses supervisory data that also cover macroprudential indicators. Hence, the key indicators that could be utilized to monitor systemic risk for the supervised nonbank financial institutions should be identified. Such indicators are, for example, NPL ratios, capital ratios, profitability, and liquidity indicators. Depending on the clarification of the macroprudential mandate, GARFIN should look at those indicators not only at the level of individual institutions but also across the whole nonbanking financial system. Some relevant financial stability figures are provided in the GARFIN Annual Report and Accounts, especially in the Prudential Financial Ratios section, where the loan delinquency ratio (> 90 days) for credit unions in Grenada is reported. However, the figures cover mainly balance sheet items, and the prudential indicators need to be stated more. In addition, GARFIN regularly publishes the Report of the Supervisor of Insurance. This report contains more relevant indicators of financial stability, such as concentration, penetration, density, and retention ratios for the insurance sector.

10. **A solvency stress test for the credit union sector should be conducted, and the results should be published on an annual basis.** The methodology was developed in the past and supported by the CARTAC technical assistance based on the first-generation Cihak-type simple top-down stress tests using a static balance sheet approach. However, the current team was not involved in this work and is unfamiliar with the templates. In this context, uninterrupted, long-term success of capacity development must build institutional knowledge. The staff should become familiar with all documents describing the methodologies and templates and the appropriate instructions, and guidelines for accountability and business continuity reasons. Any changes/revisions/updates must be reflected in the internal methodological documents. Moreover, in the medium term, GARFIN could move towards a dynamic balance sheet approach with explicit macroeconomic scenarios and a longer stress test horizon. Such a move could be facilitated by CARTAC technical assistance in the future.

11. **A solvency assessment of the insurance sector should be conducted, and the results should be published on an annual basis.** A stress test for the insurance sector was conducted in 2019, but the results were neither analyzed nor published. Moreover, due to the introduction of IFRS 17 for the insurance sector, the methodology developed in the past with the help of CARTAC technical assistance must be revised to adapt it to the new reporting templates.

12. **An intersectoral and cross-sectoral interconnectedness network could be developed.** From a systemic risk point of view, it is essential to understand the interlinkages within the financial sector in Grenada and cross-border. In this respect, simple sectoral, cross-sectoral, and cross-border networks based on direct exposures could be developed in the medium term. Such networks could help to understand whether the supervised sectors are potentially exposed to any significant shocks triggered in the domestic banking sector or any other supervised segment of the financial system (credit unions, insurance companies, pension funds). Moreover, the cross-border analysis would allow the regulator to understand better which countries could trigger financial instability in Grenada's financial system. As the ECCB supervises the banks, and GARFIN does not have access to bank data, the banking sector analysis would need to be done in cooperation with the ECCB.

13. **Climate risk should be incorporated into the prudential agenda.** Climate risk is one of the new emerging risks that is highly relevant to Caribbean countries. Hence, it needs to be captured in the GARFIN macroprudential work. The mission discussed the essential elements of climate risk, particularly a definition of transition, physical risk, and data needed for the assessment. This background should help the GARFIN staff build the capacity to include this risk in regular financial stability work in the medium term.

III. Communication of key financial stability risks

14. **An extension of the existing Annual Report and Accounts covering key financial stability indicators and their assessment should be considered.** GARFIN publishes information on macroeconomic developments and financial sector issues in the Annual Report and Accounts and the Report of the Supervisor of Insurance. Those publications cover economic review, key indicators for the nonbanking financial sector, the aggregate balance sheet, and regulation. Many parts of the described development and indicators have direct implications for financial stability. However, they are not discussed from a financial stability angle. Hence, the relevant section in the Annual Report and Accounts should be extended to provide a holistic view of financial stability for the entire nonbanking sector in Grenada in the context of the overall macroeconomic environment. It should contain a short description of the risks based on the available indicators and a description of essential elements of the regulation that enable the reader to understand how to interpret displayed indicators and statistics.

15. **A macroprudential discussion/cooperation with the ECCB, as well as with other nonbank supervisory authorities within the Caribbean region, should be intensified.** GARFIN is providing an aggregate statistic for the ECCB Financial Stability Report. However, more intense dialog is absent. The macroprudential mandate and corresponding data sharing with the ECCB must be clarified. Accordingly, GARFIN should coordinate financial stability work with the ECCB respective teams to ensure consistency with financial stability analysis conducted on Grenada's banks. Given that credit unions and commercial banks are exposed to the same macro-financial shocks, such cooperation would ultimately lead to the improved monitoring of financial stability risks, including new emerging risks such as climate risk. Similarly, deeper cooperation should be set up with the other nonbank supervisory authorities in the Caribbean region. Those interactions should cover the exchange of information, assessments of systemic risk, modeling techniques, stress testing scenarios, templates for gathering supervisory data, data management, etc. Given the low population of Grenada, akin to the banking supervision model of the ECCB, a deeper integration and potentially a merger of nonbank supervisory agencies across the Caribbean region could create efficiency gains and result in stronger supervision and enhancement of financial stability.

16. **A regular and structural macroprudential discussion on key financial stability risks with the Ministry of Finance and supervised sectors should be established.** GARFIN should initiate a regular discussion with the Economic and Statistical Department of the Ministry of Finance, which has more expertise in macroeconomic developments that could feed into financial stability risk discussions. This cooperation could also help GARFIN to set up adverse macroeconomic scenarios and monitor risks in the real sector that might be reflected on the nonbanking institutions' balance sheets. Similarly, a regular discussion with the industry on key risks for the sector should be initiated.

17. **The key financial stability risks should be communicated via GARFIN's website, social media, and interaction with the press.** There is no active external communication of the key risks identified for the supervised nonbanking financial sector. GARFIN should prepare a communication strategy covering its website and social media use and potential engagement with the local press. This move should be coordinated with the ECCB.

IV. Staff Capacity

18. **Depending on the clarification of macroprudential mandate, the staff capacity might need to be enhanced to cover macroprudential work.** Such an enhancement might need to cover, in particular, quantitative skills and macro-financial background.[2] GARFIN had fourteen staff members and two vacant positions at the time of the mission. The two core departments (NBC and IPS), with four staff members per each, primarily need to cover regulatory and supervisory tasks covering 10 credit unions, 26 insurance companies, 48 pension fund plans, 79 school savings unions, 50 international business companies, and 17 other financial institutions (see para 2 for further details). Hence, to include macroprudential duties currently not covered in their agenda on top of their current activities is extremely difficult compared to regulatory/supervisory authorities with dedicated teams working only on financial stability issues.

19. **In case macroprudential work for Grenada will not be fully covered by the ECCB, an additional headcount(s) to deal with macroprudential topics should be considered**. Apart from the absence of proper data management, which is discussed in the next section, the current staff is not experienced in macroprudential work. This gap could be filled by hiring additional headcount(s) with the necessary skills, mainly macro-financial background combined with strong quantitative skills and an ability to work with large data. This could be complemented by the relevant training for the existing staff.

20. **The enhanced staff knowledge of macro-finance would allow the authority to conduct macroprudential work.** As credit risk is the key risk for the credit union sector, knowledge of macroeconomics and finance could help conduct assessments of the real economy. At the same time, the improved knowledge of finance would help better understand financial stability risks on financial institutions' balance sheets.

21. **The current recruitment process could involve heads of departments**. The recruitment is processed by the GARFIN Board of Directors (composed of non-GARFIN members/ staff nominated by the government) for all positions, including junior ones. From the GARFIN staff, only the executive director participates in the interviews. GARFIN could consider involving the heads of the respective departments and Human Resources to participate.

[2] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. Hence, GARFIN needs to ensure the staff's capacity to discuss macro-financial issues.

V. Data Sources and their Management

22. **The existing reporting templates for the nonbanking sector should be revised to better reflect the systemic risk of the sector.** Data is crucial to assess the financial stability of the sector, but it still needs to be collected. The templates need to cover information allowing the assessment of key risks such as credit risk for credit unions, market risk for insurance companies and pension funds, and insurance-specific risk. Regarding credit risk for credit unions, NPLs should be complemented by information about NPL write-offs; in both cases, it should be reported with a breakdown by different loan categories – especially mortgages and personal loans. For mortgages, information on loan-to-value ratios (LTV) should also be collected. Regarding market risks, asset by asset data are collected, but information on the duration of fixed-income instruments in firms' investment portfolios that would allow the calculation of market risk in response to changes in yields should be added. Moreover, information on the duration of both assets and liabilities should be collected for insurance companies and pension funds. For insurance companies, lapses are collected as absolute numbers, but the lapse rate is not calculated.

23. **Moreover, the information reported should allow cross-sectoral comparisons.** In this respect, the relevant indicators needed for different parts of the financial system should be reported in the same way. For example, ROA as a standard profitability indicator is not collected for credit unions, although this indicator should be available.

24. **A data management system allowing the processing of large data for financial stability purposes should be established.** All data from supervised firms are submitted in Excel spreadsheets, and the information is manually copied into one Excel file where data are stored. Any further manipulation of this file is done manually. Therefore, more advanced queries are highly time-consuming. Even with the potential use of some more advanced database functions available in Excel, the problem would not be solved due to the limitation of Excel and its unsuitability for large supervisory data. This data platform is one of the key obstacles to conducting a proper financial stability analysis to proceed with ex-ante rather than ex-post financial stability risk monitoring. To fill this gap, GARFIN is currently in the process of finding a provider for a data management system. It is extremely important that the solution chosen includes a data warehouse and data management tools allowing advanced data queries serving financial stability purposes. Hence, a mirror of the live database for statistical purposes with an analytical tool enabling the processing of large data must be part of such a solution.

25. **In addition, GARFIN should engage with the ECCB on the potential utilization of a credit bureau.** Credit bureaus are a unique data source that is crucial for deep financial stability analysis and assessment. In this respect, they provide information on observed PDs and LGDs. Indicators like default rates or average LGDs for different loan portfolios could be calculated based on those data. The ECCB is in the process of setting up the credit bureau. At the time of this mission, GARFIN did not have a clear strategy for cooperation with the ECCB regarding the register. Hence, GARFIN must engage with the ECCB to ensure future utilization of this new, extremely useful data source. Apart from potentially enhanced financial stability analyses, Grenada's credit unions would greatly benefit from knowing the indebtedness of their borrowers to rein in risky lending. It is, therefore, critical for GARFIN to have sufficient access to the regional credit bureau's data.

26. **Potential new data sources to be utilized for financial stability purposes should be explored**. Apart from supervisory data with some submission lags, other data sources that could benefit financial stability analyses and assessments should be investigated. Those sources could include, for example, market data or macroeconomic data, including available macroeconomic outlooks. In addition, regular survey(s) with the industry covering nonbanking institutions could be considered to obtain a forward-looking financial stability assessment. This could mainly focus on credit risk, given its prominent role in the financial system, and on

cyber risk, as new emerging risk that is not fully monitored. For example, credit risk could be addressed through a credit union lending survey.

27. **Such surveys should collect all crucial missing information related to the key financial stability risks, especially concerning credit risk.** This approach also partially addresses the current lack of use of credit register(s). The surveys for credit unions could cover especially the following information:
    - Average PD/default rate for consumer loans and mortgages;
    - Average loss given default for consumer loans and mortgages;
    - Average lending rates for consumer loans and mortgages;
    - Information on the type of collateral – real estate.
    - Average deposit rates.

28. **Another potential survey could address the lack of information on cyber risk.** It could cover, for example, the following information:
    - Number of cyber incidents with the impact exceeding the defined threshold,
    - Total losses related to cyber incidents,
    - The information could be broken down by the type of cyber incident e.g., malware attack, phishing attack, insider threat, etc.

29. **Any additional information or survey that could help to address the current data gaps based on identified risks should be further considered.** This may encompass potential new emerging risks or unaddressed data gaps beyond the ones mentioned earlier.

V. Conclusions

30. **The macroprudential mandate for the nonbanking sector in Grenada should be clarified.** The implicit mandate for the entire ECCU financial system lies with the ECCB, but the related legislation is still being drafted. However, the ECCB receives only aggregated data for the nonbanking financial sector in Grenada and, therefore, cannot fully monitor and assess financial stability risks. The macroprudential work is currently not conducted by GARFIN. Hence, the mandate needs to be clarified, including data sharing, and accordingly, either the ECCB or GARFIN needs to conduct macroprudential work. That would include compiling key macroprudential indicators, their analysis, and regular performance and publication of solvency stress tests for the credit union and insurance sectors. Moreover, it should reflect on climate risk as a new emerging risk that is, in particular, relevant for Grenada.

31. **An extension of the existing Annual Report and Accounts covering key financial stability indicators and their assessment should be considered.** Such an addition should provide an overview of key financial stability risks, reflecting the broader macroeconomic context. Moreover, the key risks could be communicated via GARFIN's website, social media, and interaction with the press.

32. **A regular and structural macroprudential discussion on key financial stability risks with the Ministry of Finance and supervised sectors should be established.** In this respect, GARFIN should engage with the Statistical and Economic Department of the Ministry of Finance and supervised entities to get better insights into potential vulnerabilities and the risk of their materialization for the financial system.

33. **Depending on the clarification of macroprudential mandate, the staff capacity might need to be enhanced to cover macroprudential work.** The enhancement might focus on quantitative skills and macro-financial background. Additional headcount(s) to deal with macroprudential topics with good knowledge of macro-finance, strong quantitative skills, and an ability to work with large data could be considered.

34. **Data sources and their management limit GARFIN's ability to monitor systemic risk.** The existing reporting templates for the nonbanking sector should be revised to reflect better systemic risk for the nonbanking sector (e.g., information on durations should be included), and the information reported should allow for a cross-sectoral comparison. Moreover, a data management system allowing the processing of large supervisory data should be established. To fill this gap, GARFIN is currently in the process of finding a provider for a data management system. The solution must include a data warehouse and data management tools allowing advanced data queries for financial stability purposes. In addition, GARFIN should engage with the ECCB on the potential utilization of a credit bureau that is being established. Finally, any potential new data sources to be utilized for financial stability purposes should be explored.