



SURINAME

TECHNICAL ASSISTANCE REPORT— FINANCIAL STABILITY REPORT

October 2023

This Technical Assistance Report on Suriname was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed on November 2022.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: <http://www.imf.org>
Price: \$18.00 per printed copy

International Monetary Fund
Washington, D.C.



TECHNICAL ASSISTANCE REPORT

SURINAME Financial Stability Report

MARCH 2023

Prepared By

Petr Jakubik



MEMBERS

Anguilla, Antigua and Barbuda, Aruba, The Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Curaçao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Maarten, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands

PARTNERS

Canada, United Kingdom, European Union, Netherlands, Mexico, USAID, Caribbean Development Bank, Eastern Caribbean Central Bank

DISCLAIMER

"The contents of this document constitute technical advice provided by the staff of the International Monetary Fund to the Central Bank of Suriname (the "CD recipient") in response to its request for technical assistance. This document (in whole or in part) or summaries thereof may be disclosed by the IMF to the IMF Executive Director for Suriname, to other IMF Executive Directors and members of their staff, as well as to other agencies or instrumentalities of the CD recipient, and upon their request, to World Bank staff, and other technical assistance providers and donors with legitimate interest including members of the Steering Committee of CARTAC, unless the CD recipient specifically objects to such disclosure (see [Operational Guidelines for the Dissemination of Technical Assistance Information](#)). Publication or Disclosure of this report (in whole or in part) to parties outside the IMF other than agencies or instrumentalities of the CD recipient, World Bank staff, other technical assistance providers and donors with legitimate interest including members of the Steering Committee of CARTAC shall require the explicit consent of the CD recipient and the IMF's Monetary and Capital Market department."

MEMBERS



Anguilla



Antigua and Barbuda



Aruba



The Bahamas



Barbados



Belize



Bermuda



British Virgin Islands



Cayman Islands



Curaçao



Dominica



Grenada



Guyana



Haiti



Jamaica



Montserrat



St. Kitts and Nevis



St. Lucia



St. Maarten



St. Vincent and the Grenadines



Suriname



Trinidad and Tobago



Turks and Caicos Islands

PARTNERS



Canada

UK aid



European Union



Ministry of Foreign Affairs of the Netherlands



Secretaría de Hacienda y Crédito Público Mexico



USAID



Caribbean Development Bank



Eastern Caribbean Central Bank

Table of Contents

Executive Summary	2
Acronyms and Abbreviations	5
Preface	6
I. Introduction	7
II. Key Elements of Financial Stability Reports	9
III. Organizational and Operational Setup of the Report and its Communication	11
Organizational and Operational Setup of the Report	11
Internal and External Communication	11
IV. Structure of the Report	13
V. Content of the Report including the Analytical Toolkit and Data Sources	15
Content of the Report	15
Financial Stability Analytical Toolkit	16
Data Sources and Statistics	18
V. Conclusions	20

Executive Summary

The mission focused on enhancing the financial stability report (FSR) of the Central Bank of Suriname (CBS) whose publication has recently resumed. It reviewed the latest available FSR together with all background documents on financial stability work shared by the CBS. Based on those materials, a one-week mission at the CBS, consisting of a targeted workshop and meetings, was undertaken.

The FSR, the flagship product of the CBS in the financial stability area, is the joint effort of several teams within the bank. Apart from technical aspects, the mission demonstrated how critical it is to collaborate, discuss, and bring together various economic and financial perspectives. As the FSR is an important communication tool, it is essential to provide a forward-looking, frank, and consistent financial stability risk assessment that is easy to understand by readers.

The mission provided several recommendations to the CBS. This covered the content and structure of the FSR and its related FSR processes, CBS's internal and external communication, additional headcount for the Financial Stability Department, developing the financial stability analytical toolkit, coverage of the non-banking sector, and the use of data sources and statistics. Those outcomes reflect on both the structure of the organization in CBS regarding the financial stability agenda, as well as the composition of the financial system in Suriname that is highly dominated by the banking sector (75% of the total financial system assets, 95% of GDP), but also includes a significant insurance and pension sector (both about 12% of the total financial system assets, 15% of GDP).

The preparation of a detailed FSR production plan is critical and could facilitate improvements and bring some synergies between different teams involved in its production. This needs to include different steps and set up a firm date of publication. To provide more up-to-date information, the CBS should also target semiannual FSR releases in the medium to long term.

The CBS should prepare a communication strategy to establish the report as the key financial stability communication tool. It needs to contain the central risk story based on the forward-looking, frank, and consistent financial stability risk assessment that is easy to understand by readers. The report can be strengthened in several ways to improve overall structure and readability. In particular, the structure of the report should be changed to a top-down approach.

The CBS should further continue working towards enhancing the financial stability analytical toolkit. Although, the CBS has made significant progress in developing financial stability analyses over the last years, the toolkit needs to be further enhanced to identify, monitor, and assess all relevant financial stability risks. The existing financial stability analysis toolkit should be revised to avoid all existing overlaps.

The banking top-down stress test is regularly performed, but the CBS should further work on methodological improvements. There has been a good progress on implementing banking sector stress testing covering nine key commercial banks, facilitated also by CARTAC technical assistance on enhancing the stress test framework in March 2021. The solvency stress test could be further elaborated, especially for credit risk. The projection of market consistent scenarios and developing other econometric models would allow the CBS to move from a static to a dynamic balance sheet stress test exercise applying the same time horizon.

The mission also identified that more in-depth analysis of the insurance and pension sector is needed. The bank-like activities undertaken by non-banks should be fully assessed and monitored. In this context, the cooperation between banking, insurance and pension teams should be strengthened.

Moreover, it is important to enhance the relevant economic research. It was further highlighted that all available data sources should be utilized to identify and assess key financial stability risks. In this respect, the possibility to use credit registers for statistical/financial stability work should be explored. In the meantime, the existing data gaps could be covered by different surveys with the industry. Finally, the CBS should initiate a discussion on software/tools that would be used for processing large data in the bank.

Recommendations	Priority	Timeframe ¹
The organizational and operational setup of the report and its communication		
Prepare the FSR production plan with the dates of different steps and the final publication.	High	Near term
Prepare a communication strategy on the report, establish the FSR as the key communication tool, consider press conference/presentation/discussion with market participants/analysts.	High	Near term
Discuss the FSR in the Financial Stability Committee.	High	Near term
Organize cross-departmental discussion(s) before starting the report drafting and during the drafting process.	High	Near term
Set up firm date(s) for the publications.	High	Near term
Target semi-annual FSR releases in the medium to long term.	Medium	Medium to long term
The structure of the report		
The broader macro-context and a more forward-looking perspective should be reflected in the report, which should be streamlined to follow the central story with key messages that are clear and easy to understand by readers with limited knowledge on the financial system in Suriname.	High	Near term
Change the structure of the report to top-down; start with the key risks and then elaborate on them in more detail, add mission statements/themes to each paragraph, use boxes and annex(es) when appropriate.	High	Near term
The revised report should contain a foreword, executive summary, overview of the key risks for financial stability in Suriname, the internal and external macroeconomic environment and the potential implied tail risks, the real sector assessment including the property market, and financial sector assessment of all segments including financial system infrastructure.	High	Near term

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

Recommendations	Priority	Timeframe ¹
The content of the report including the analytical toolkit and data sources		
Include discussion of the regulatory framework, any potential changes planned and policy actions impacting financial stability risks.	High	Near term
Elaborate on financial inclusion/education in the report.	High	Near term
Include the analysis of the real sector as the key element of credit risks for banks dominating the financial system in Suriname.	High	Near term
Explore existing work on non-banks not used for financial stability purposes, investigate bank-like activities carried out by non-banks; assess potential spillover risks from non-banks to banks, consider enhancing cooperation between insurance, pension, and banking teams.	Medium	Medium term
Revise the existing financial stability assessment framework to avoid overlaps, consider further enhancement of existing stress test methodologies and develop a cross-sectoral interconnectedness network.	Medium	Medium term
Consider extending utilized data sources to the latest available information (market data), clearly communicate the cut-off dates for different data sources. Initiate surveys with the industry to cover the existing data gaps.	Medium	Medium term
Consider dedicating a person(s) to support FSR on economic research (econometric modelling).	Medium	Medium term
The Financial Stability Department should be strengthened by additional headcounts to be able to fully cover the financial stability agenda.	High	Medium term
Investigate the possibility and prepare an implementation plan to use credit register(s) for statistical/financial stability work in the future (i.e., calculation of default rates).	Medium	Medium term
Organize a discussion and prepare an implementation plan on software/tools to use for large data processing in the future.	Medium	Medium term

Acronyms and Abbreviations

AFSI.....	Aggregated Financial Stability Index
BSI.....	Banking Stability Index
CARTAC.	Caribbean Regional Technical Assistance Centre
CBS	Central Bank of Suriname
FHSI	Financial Health and Stability Indicators
FSI	Financial Soundness Indicators
FSR	Financial Stability Report
FX.....	Foreign exchange
GDP	Gross Domestic Product
LGD	Loss Given Default
NPLs.....	Non-performing loans
PD.....	Probability of Default
SRD	Surinamese dollar
USD	US Dollar

Preface

At the request of the CBS, a CARTAC mission was conducted in person from November 14 to 18, 2022, to assist the authorities to enhance their financial stability report (FSR).

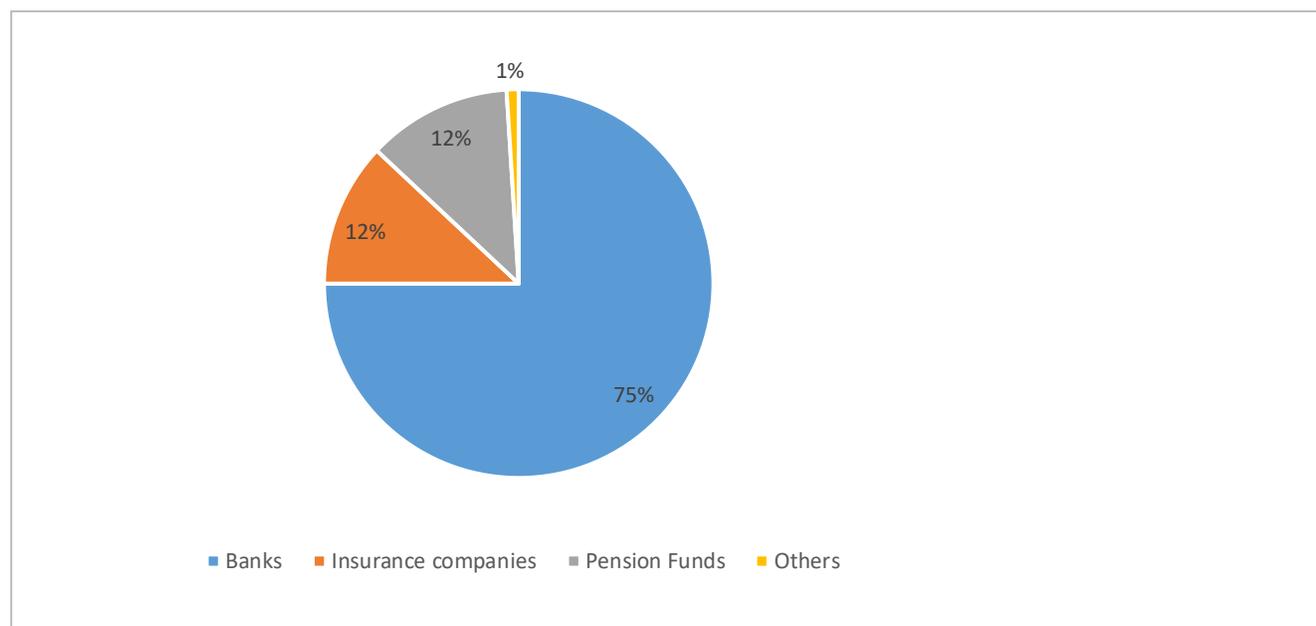
The mission was conducted by Mr. Petr Jakubik (LTX). The preparation meetings were conducted via Webex.

The mission met with the Governor Maurice Roemer, Deputy Governor - Prudential Supervision Mr. Rakesh Adhin, Director of the Financial Stability Department Ms. Rosminie Warsosemito, Deputy Director of the Financial Stability Department Mr. Jonathan Mangoendinomo and all teams contributing to the FSR. The mission wishes to thank all CBS staff for their cooperation and productive discussions.

I. Introduction

1. **The main aim of the mission was to enhance the financial stability report (FSR) of the CBS.** The CBS has published three FSRs (October 2015, May 2021, October 2022) so far. The 2022 report was finalized and published after the mission at the end of 2022. Since 2016, FSRs have not been produced. The situation has changed with the appointment of a new deputy governor responsible for financial stability. As such, the right conditions are now in place to produce the report regularly on an annual basis. Overall, the resumption of regular publications of the FSR provides a positive signal to market investors and the public.
2. **The overall financial system of Suriname is highly dominated by the banking sector (75% of the total financial system assets, 95% of GDP), but also by the insurance and pension sector (both about 12% of the total financial system assets, 15% of GDP).** This composition clearly informed mission's priorities and efforts. The CBS has made steady progress with producing financial soundness (FSI)/financial health and stability (FHSI) indicators for the banking, insurance, and pension fund sectors, but these are still not being reported through the IMF FSI platform managed by the IMF Statistics Department. In addition, further work needs to be done to advance analysis for the banking sector as well as enhance the currently limited capacity to perform financial stability analysis beyond banking, especially for the insurance and pension sector.

FIGURE 1. Distribution of Financial Sector Assets



Source: CBS, based on end-2020 data.

3. **The mission reflected on the organization structure of the CBS.** The bank is headed by the Governor of the CBS, who is appointed by the President of Suriname. The Governor reports to a Supervisory Board. The CBS is comprised of three directorates, each headed by a director; and includes several departments relating to the core functions of central bank. There are also several supporting departments, which include among others: Human Resources, Information and Communication Technology, Procurement, Internal Audit, and a Legal Department. The three directorates are:
 - a. Directorate of Banking Operations
 - i. Managing the Surinamese currency in circulation.

- ii. Promoting and facilitating sound internal and external payments in Suriname.
 - iii. Fulfilling the role of cashier, banker, and financial advisor to the Government.
 - iv. Fulfilling the role of banker to commercial banks.
 - v. Managing international reserves.
- b. Directorate of Monetary and Economic Affairs
- i. Determine and execute monetary policy.
 - ii. Determine and execute exchange rate policy and the regulation of cross-border payment streams.
 - iii. Conducting financial and economic analysis and research.
 - iv. Compiling and disseminating key macroeconomic and sector statistics.
- c. Directorate of Prudential Supervision
- i. Supervising the health of financial institutions.
 - ii. Promoting the stability of the financial system.
 - iii. Overseeing the implementation of best practices for business conduct, financial reporting, and governance of financial institutions.
 - iv. Protecting the interests of depositors.

The Financial Stability Department is part of the Directorate of Prudential Supervision.

4. **Ahead of the mission, the CARTAC Financial Stability Adviser reviewed the latest available FSR together with all background documents on financial stability work shared by the CBS.** Those materials covered the methodological description of the Aggregated Financial Stability Index (AFSI), Banking Stability Index (BSI), Cobweb for determining financial stability risks and the work on interconnectedness within the banking sector. In addition, the CBS provided the existing estimates on the credit-to-GDP gap as well as data on the dollarization of the economy.
5. **These preparatory materials formed the basis of the mission, which consisted of a targeted workshop and meetings.** The three-day workshop on the findings of the FSR review and best practices in financial stability analyses and assessments involved all teams contributing to the FSR process. It was complemented by one day of targeted meetings between all teams individually and the CARTAC Financial Stability Advisor. The Director of the Financial Stability Department and her Deputy were present in all meetings/discussions and training sessions. To conclude, the final wrap up meetings with the Financial Stability Department, the Deputy Governor responsible for Prudential Supervision and the Governor were conducted on the last day. The high-level outcomes of the mission were presented and discussed with the Governor. Overall, the CBS management was very supportive during the mission and agreed with the recommendations proposed throughout the mission.

II. Key Elements of Financial Stability Reports

6. **The mission highlighted the key elements of good FSRs based on best international practices.**² The most important aspects and the gaps of the current report were discussed. In this respect, the following elements were covered: aims, objectives, and reasons; overall assessments; coverage of issues; data, assumptions, and tools; structure and other features.
7. **FSRs should explicitly state their objectives.** The reports should aim to inform the public and encourage a constructive debate about financial sector developments and policies, holding public authorities accountable for their surveillance of the financial system. The information provided should facilitate a proper assessment of risks by investors active in the market.
8. **FSRs should be clear about what is meant by financial stability.** The definition should include a dynamic perspective: a financial system is stable not only when it is carrying out its essential functions and services, but when it is also capable of withstanding the shocks and strains that can be reasonably expected to affect it in the short and medium term. It is important that the report clarify the operational benchmarks used to assess whether the system is stable, explaining what data, indicators, and type of information would be monitored for this purpose.
9. **The executive summary should be brief and easy to read.** The presence of a well-articulated executive summary is critical to inform and guide public opinion. A reader should not have to sift through the entire report to distill the main conclusions of the analysis and should be able to understand the key messages of the report even if the reader is not financially sophisticated. More advanced and technical material should be covered in the analytical chapters, preferably in boxes or annexes. The function of the executive summary is to bring together the various strands of analysis developed in the rest of the report, presenting a panoramic and honest view of risks and vulnerabilities, including politically sensitive risks. The executive summary should also discuss how these risks have evolved since the previous issue of the report and provide a summary of the key recommendations.
10. **FSRs should integrate macroeconomic and financial analysis.** This analysis should flow in both directions, assessing the key macroeconomic trends that can have an impact on the stability of the financial sector as well as the key financial sector developments that can, in turn, have an impact on the real economy. The report should identify the main transmission channels that link the financial and real economy and assess in quantitative terms how shocks in one area could reverberate in other areas.
11. **FSRs should not only explain, but also properly justify the assumptions used.** This is especially relevant in the case of stress tests, whose meaning and interpretation depends critically on the assumptions made regarding the severity of shocks, the speed and scale of the impact of shocks on default probabilities (PDs), the hurdle rates on capital and liquidity, dividend distribution, and other parameters of the test. Ideally, stress tests should be computed within a general equilibrium framework with the support of satellite econometric models that link macroeconomic and financial conditions. Simpler, partial-equilibrium, or even *ad hoc* tests can also be appropriate, and could be the inevitable consequence of capacity or data constraints, but any limitations of this choice should be described and explained.
12. **FSRs should indicate the data and methodology used and make them easily available.** The sources and cut-off date of the data should be indicated clearly and in an easily identifiable place. The data used

² See Lim, Ch. H., Klemm, A. D., Ogawa, S., Pani, M. and Visconti, C. (2017) Financial Stability Reports in Latin America and the Caribbean, IMF Working Paper, 17/73.

should also be made available to the public on the internet, on the same website where the reports are published. The methodology used for projections, sensitivity analyses, and stress tests should be explained in clear and simple terms in the text, with more technical details provided in special boxes or annexes. In analyzing the data, the report should consider not only aggregate and average measures but also distributional indicators and, where appropriate, extreme, or individual values (with proper safeguards to preserve confidentiality), highlighting, for instance, the position of the weakest or most vulnerable institutions or asset classes.

13. **The reports should follow a logical and integrated structure with unifying themes centered on the key risks.** The structure should enable the reader to identify which parts of the report contain specific information about different topics, while also facilitating the discussion of cross-cutting topics. The structure should be consistent over time to allow the reader to compare the assessments and should contain boxes or appendices dedicated to issues that either evolve slowly over time or reflect passing concerns. The reports should have an executive summary, several chapters devoted to external and domestic developments that affect the financial sector and changes in the financial infrastructure, including on the regulatory and supervisory framework, and should preferably include a table of acronyms, a glossary of technical terms, methodological and statistical annexes.
14. **The publication of the reports should be supported by a well-designed communication strategy.** Current and past issues of the reports should be made available on the internet on a dedicated webpage that is easy to navigate and easy to find on the home page of the publishing authority; this page should also contain a database containing the data used as well as links to other relevant publications and to other agencies and sources of information. The launch of the report should be supported by an outreach campaign aimed at disseminating the main messages and recommendations through audiovisual broadcasts, press releases, public presentations, and press conferences. The format and medium of communication should be adapted depending on the intended audience. The publication of the report should follow a timely, regular, and predictable schedule. As financial sector conditions can change very rapidly, reports should be published within three months of the cutoff date for the data, preferably at least two times a year. The publication date should be announced in advance, so that the readers know when to expect the next issue; and should change only infrequently. The past publication dates should also be clearly indicated on the website, to enable the readers to know what information was available to the public at different times.

III. Organizational and Operational Setup of the Report and its Communication

Organizational and Operational Setup of the Report

15. **The FSR as the flagship product of the CBS in financial stability is the joint effort of several teams within the bank.** The Financial Stability Department is responsible for the FSR. However, many other teams contribute heavily to the report. In particular, the banking supervision, insurance supervision, pension fund supervision, credit union supervision, research, financial markets, payment system, open market operations, and international relation teams are directly involved in the drafting. While the supervision and financial stability teams belong to the same directorate, the others do not. The contribution among the above-mentioned teams is quite heterogeneous and varies from a few paragraphs to several pages.
16. **The Financial Stability Department should be strengthened by additional headcounts to be able to fully cover the financial stability agenda.** The Financial Stability Department consists of 4 members including the director and her deputy. Hence, it is not possible for the department to produce the report without any assistance from other teams given the current human resources constraints. In fact, the current headcount limits the capacity of the department to challenge and follow up on the inputs provided by the other teams. The additional headcount could be accomplished through new hires or reallocation of staff between departments.

Internal and External Communication

17. **The CBS should prepare a financial stability communication strategy to establish the report as the key communication tool of the CBS in financial stability.** The report is currently published on the website. However, the publication is not promoted further, and the key messages are not spelled out. To turn the report into a communication tool, several steps could be taken. First, the CBS should prepare a communication strategy and promote the outcome of financial stability work spelled out in the FSR, e.g., by active communication in media and social networks. Second, the foreword could be used to communicate the key messages by the Governor to market participants and the public. Third, the CBS could consider organizing a press conference with the Governor's participation and circulate an email to all relevant contacts with the highlights of the report reflecting the main messages on the day of publication. Fourth, shortly after the publication, the CBS could also organize a seminar with market participants/analysts to discuss the key findings of the report.
18. **The FSR should be also discussed in the Financial Stability Committee.** This would allow a discussion and internalization of the main messages by another important financial stakeholder, in particular the Minister of Finance, in a forum dedicated to the topic. This would also facilitate the identification of potential issues to follow up on by the CBS.
19. **The CBS should set up the firm date(s) of the publication(s) and target semi-annual releases in the medium- to long-term.** The report is currently published on annual basis. This is reasonable at this stage, given the size of the Financial Stability Department. However, going forward, the aim should be to move to

semi-annual frequency. Potential obstacles with data sources availability could be addressed by splitting those two releases into one comprehensive (based on annual data) and one shorter issue provided with the update on the key risks. This could be the medium to long term target. Moreover, the dates of the release(s) should be set up as firm dates to manage public expectations.

20. **Apart from technical aspects, the mission demonstrated how critical it is to collaborate, discuss, and bring together various economic and financial perspectives.** The work on FSR is initiated by the Financial Stability Department that receives inputs from other teams. However, there is no prior communication neither on the key topics before, nor during the drafting process to align the messages across the report. This fact is visible in the final version of the latest report that is rather fragmented not providing a single story with clear messages. In this respect, the mission aimed to put together all teams involved in the drafting process so that their experts understand how their topics fit to the overall report and how it should be changed towards a story-telling document. The teams need to cooperate closely to improve the report. To this end, the following steps would be beneficial to implement. First, the CBS should prepare the production plan/road map of the FSR with exact dates and deadlines on all steps/responsibilities and teams/involvements including the final publication day. Second, the CBS should organize cross-departmental discussion with a high-level representation to discuss the key topics relevant to financial stability before starting the drafting. Third, the CBS should organize the expert meeting(s) with the main risks/messages with all contributors before and during the drafting process. Fourth, the CBS should prepare a financial stability communication strategy.
21. **The production plan for the FSR needs to be prepared jointly with all departments/teams involved.** It is important that the production plan is discussed with all departments involved to obtain their views and commitment on timelines. The final plan needs to be adopted by the top management of the CBS to be respected by all departments involved.

IV. Structure of the Report

22. **The report should be streamlined using appropriate language that is understandable also to public, not only supervisors or financial stability experts.** The report needs to follow the central story with the key messages that are clear and easy to understand to readers with limited knowledge of the financial system in Suriname.
23. **The definition of financial stability needs to be clearly set out at the beginning of the report, ideally in a dedicated section.** It is currently provided in the foreword, which is not optimal. Instead, it could be moved to a special page dedicated to that in the beginning of the report. The FSR also provides the key relevant statistics, but it is rather descriptive and fragmented looking at each sector/topic in isolation. Comprehensive statistics could be provided in an annex.
24. **As the FSR is an important communication tool, it needs to contain the central risk story based on the forward-looking, frank, and consistent financial stability risk assessment that is easy to understand to readers.** There is currently an absence of a central story that would be connecting different parts of the report. The macro-financial narrative on key risks and messages together with the importance of the identified risks in the context of the overall financial stability is missing. As previously mentioned, this is also related to the issue of communication among different teams involved in the drafting process. There is too much focus on the explanation of each indicator rather than providing its interpretation in terms of key risks in the context of financial stability. Moreover, the description of different indicators is too mechanistic typically describing whether ratios have increased or decreased due to the numerator or denominator without providing some economic rationale and drivers behind those trends. In this respect, the report must be changed from (backward-looking) descriptive discussions to more forward-looking risk-focused narratives. Finally, it needs to be emphasized that the CBS needs to exercise caution and realism when opting to use the FSR as a vehicle to communicate policy responses.
25. **The report can be strengthened in several ways to improve overall structure and readability, in particular the structure of the report should be changed to a top-down approach.** In this respect, it should start with the key risks that would be further elaborated in a subsequent section. Each paragraph could start with a mission statement/theme providing more direction to the reader. Some less important/too detailed or technical explanations could be moved into annexes or special boxes introducing, for example, a new methodological work. The revised report should contain the following parts.
 - ◆ Foreword providing the keys messages to be communicated by the Governor.
 - ◆ Executive Summary providing a good overview of the key risks and their assessment.
 - ◆ Overview of the key risks for financial stability in Suriname outlining the key risks identified and further elaborated in the report.
 - ◆ The internal and external macroeconomic environment focusing on the factors that might potentially form the adverse scenario and materialization of tail risks.
 - ◆ The real sector assessment including the property market with potential to affect the financial system.
 - ◆ Financial sector assessment and changes in the financial infrastructure, including on the regulatory and supervisory framework.
 - ◆ Table of acronyms, a glossary of technical terms, methodological and statistical annexes.
26. **The stress test results should be incorporated into the chapter on the financial sector assessment.** Further details on the methodological framework and more detailed results could be provided in the annex. The real sector assessment chapter needs to be linked to the chapter on financial sector providing a better idea especially on credit risk and its further development in the future.

27. **To further improve the report, the staff involved in the FSR drafting could be trained on written communication skills.** Based on the publication of the revised report in 2023, the staff could be trained on the written communication based on examples from the report. Such a targeted training could help staff to further improve the report by writing more concise and clear messages.

V. Content of the Report including the Analytical Toolkit and Data Sources

Content of the Report

28. **Although the FSR describes all segments of the financial system in Suriname, it must be further elaborated adding also analyses of the real sector.** The current financial stability report broadly covers the entire financial system, i.e., commercial banks, credit unions, insurance companies, and pension funds, but there are some inconsistencies in the numbers on different segments in the report that should be corrected. However, the analysis of the real sector as the key element of credit risks for banks dominating the financial system in Suriname is very limited. In this respect, any vulnerabilities related to the balance sheets of corporates and households should be analyzed. It should consider all available data to cover aspects of solvency, profitability, activity, and liquidity for firms. For households, the focus should be on disposable income, unemployment, indebtedness, lending rates, and savings. Finally, the property market should be analyzed as it has a critical impact on credit risk as real estates are used as collaterals for mortgages.
29. **Moreover, the evolving fiscal and monetary policy context needs to be assessed when preparing the report.** Especially the latter would warrant close coordination with the relevant department(s). In this respect, the Financial Stability Department already cooperates with the monetary policy team, but this interaction could be further strengthened.
30. **A description of the relevant elements of the existing regulatory framework for different segments of the financial system should be added.** It is difficult to interpret the reported indicators by a reader who is not that familiar with the financial system in Suriname, as a description of the relevant aspects on the regulatory framework (i.e., to which extent the framework is market sensitive with a risk-based capital) is absent. At the same time, all ratios utilized should be complemented with their definitions, which is not always the case. Finally, the charts sometimes miss necessary descriptions to be properly interpreted by readers.
31. **Financial literacy, education and inclusion could also contribute to financial stability, these themes could be elaborated in the report.** The CBS currently has a team looking at consumer protection issues. This work could be reflected in the report from a financial stability angle. Higher financial literacy positively influences lower payment delinquency as households are more aware of their payment abilities and better understand any potential financial commitments.
32. **A more in-depth analysis of the insurance sector is needed.** Based on the descriptive statistics provided in the report, the insurance sector underwriting seems to generate persistent losses. The overall positive profitability of insurers reported seems to be driven by depreciation of domestic currency. This implies that insurers are running a business model that is not viable independently of the macroeconomic development. This important financial stability risk should be monitored, assessed, and discussed in the report.
33. **The bank-like activities undertaken by non-banks should be fully assessed and monitored.** Many non-banks are involved in banking activities, in particular insurance and pensions funds granting loans. They need to be assessed in the same way as it is done for banks to fully understand the associated credit risk in the whole financial system. The holistic approach to credit risk would allow the CBS to cover all non-performing loans (NPLs) in the financial system as well as potential related risks such as regulatory arbitrage building up systemic vulnerabilities. Moreover, the report should also assess potential distortions stemming from under-supervised non-bank credit provision on the broader functioning of the Surinamese credit market, which could

potentially constrain banks' ability to adjust lending rates in tune with the risks associated with underlying macro-conditions. Hence, potential spillover risks from non-banks to banks need to be assessed.

34. **In this context, the CBS could consider enhancing cooperation between the insurance, pension, and banking teams, for example, one banking expert could support the insurance/pension team.** This would also bring some synergies building up the capacity to supervise non-banks also for their non-traditional activities. Such an expertise would be reflected in the improved financial stability assessment spelt out in the report.
35. **The cooperation between the pension and financial stability teams should be strengthened.** There seems to be some information available, and work done prepared by the pension team that is not reflected in the financial stability assessment. Pension and financial stability experts should liaise to fully utilize all existing work on monitoring and assessing risks for the pension sector. This should be reflected in the FSR. Currently, even though there seems to be some kind of an early warning system for pension funds in place, it is used for supervisory purposes only. The reason is a lack of automatization and insufficient resources of the pension team to perform the analysis regularly for the whole system, rather than on the case-by-case basis. Given the limited number of systemically relevant pension funds which need to be included in such an analysis, the CBS should explore some options for the automatization of the current manual processes to extend the analysis for the sector. If there is no free human capacity, such a work could be potentially done by an intern.

Financial Stability Analytical Toolkit

36. **Although, the CBS has made significant progress in developing financial stability analyses over the last years, the toolkit needs to be further enhanced to identify, monitor, and assess all relevant financial stability risks.** There has been good progress on developing systemic risk indicators and carrying out financial network analysis supported by improving information on financial sector interconnectedness produced only for the banking sector so far. The CBS should further build up the capacity to monitor especially credit risk and disaggregate the relevant indicators to be able to follow the different risk drivers – e.g., breakdown of loans to corporates, mortgages, and consumer loans to households. The CBS should also build up a cross-sectoral interconnectedness network to understand how the risks could be transferred among different segments of the financial system. This would show the importance of the interconnection between different segments of the financial sector thereby providing a better idea of the relative importance of the non-bank sector to financial stability.
37. **The existing financial stability analysis toolkit should be revised to avoid all existing overlaps.** The information provided by the Aggregated Financial Stability Index (AFSI), Banking Stability Index (BSI) and Cobweb for determining financial stability risks needs careful interpretation. There are many overlaps between the mentioned indices, for example, between BSI and Cobweb for banking related indicators. In fact, within Cobweb, the financial system is represented only by banking indicators (capital and assets quality). The same indicators are presented also in BSI. Hence, such indicators should be streamlined to capture what they are really supposed to capture – for example the financial system in Suriname is not composed only of the banking sector. Moreover, as the indicators can never capture everything, they should be complemented by expert judgement. The current style of the report that mechanistically describes the results of the mentioned indices should be replaced by a central risk story supported by the results obtained from different indicators.
38. **The banking top-down stress test is regularly performed, but the CBS should further work on methodological improvements.** There has been good progress on implementing banking sector stress testing covering nine key commercial banks facilitated also by CARTAC technical assistance on enhancing the stress test framework in March 2021. The 2021 FSR presented the results of both solvency and liquidity

stress tests based on a range of scenarios. However, the methodology is based on first-generation top-down stress tests using a static balance sheet approach.³

39. **The solvency stress test could be further elaborated, especially for credit risk.** The implemented solvency stress test uses a set of scenarios based on single and multiple shocks. The single shock scenarios are based on an NPLs increase, default of top borrowers, and USD/SRD depreciation. The multiple factor risk scenarios are based on the combination of exchange rate and credit risk shocks as well as the combination of all mentioned single shocks. None of the employed shocks are derived from any consistent macro-financial model. This could be a potential improvement to derive the market consistent scenario based on a macroeconomic model and link the financial variables as NPLs via some estimated econometric models to such a scenario. The credit risk calculation could be further elaborated by breaking down the calculation for corporates, personal consumer loans and mortgages. Overall, the CBS should further continue to enhance identifications of vulnerabilities and their potential for spill-over effects. In this respect, the interbank contagion risk analysis that is in place could be linked to the bank solvency stress test by deducting the losses from the capital after stress tests where credit and FX shocks are applied.
40. **The projection of market-consistent scenarios and developing other econometric models would allow to move from a static to dynamic balance sheet stress test exercise applying the same time horizon.** The current stress test exercise does not consider any time horizon, the exercise is static with instantaneous shocks reflected immediately on banks' balance sheet. The CBS could consider generating a market consistent macroeconomic scenario for example by using an adjusted macroeconomic projection employed for monetary policy purposes reflecting potential tail risks. Furthermore, by estimating satellite econometric models, the scenario could be linked to key bank balance sheet items, in particular NPLs. Such models could be estimated either using only data for Suriname when historic times series are sufficiently long or panel data covering several relevant countries.⁴
41. **The assumption of fire sales of different asset classes could further enhance the current employed liquidity stress testing framework.** The liquidity stress test elaborates on two scenarios – a large deposit withdrawal and continuous daily outflow of deposits. The central bank could also incorporate the assumption of fire sales that would imply some haircuts on different type of assets. However, as liquidity risk does not seem to be the major issue for the banking sector in Suriname so far, this might have rather lower priority. Nevertheless, it needs to be considered that for many of the liquid assets, there is no market in Suriname, or the market is illiquid (e.g., government bonds).
42. **There is currently a limited capacity to perform financial stability analyses beyond banking.** While the financial stability experts reflect solid expertise in the banking sector, their experience with the non-bank sector is rather limited. Hence, they must rely on experts from other departments to provide necessary inputs for the report, but they have had no capacity to challenge those inputs. This might slightly improve after the delivered technical assistance to the CBS. Given the size of the current Financial Stability Department, it is unrealistic that the team would be able to gain all necessary expertise. However, the team needs to gradually build up a broad understanding of the non-banking sector, especially insurance and pension sectors that are significant for the financial system in Suriname, to be able to assess the inputs received from other teams to arrive to key financial stability messages.
43. **Economic research is important for the further enhancement of the financial stability analysis toolkit.** Given the size of the Financial Stability Department, the capacity for conducting economic research to develop econometric models underpinning financial stability analysis and assessment is very limited. Although, the central bank has the Research Department, its staff focuses almost entirely on research supporting the CBS's

³ See Cihak, M. (2007): Introduction to Applied Stress Testing, IMF Working Paper 07/59.

⁴ See e.g., Beck R., Jakubik, P., Piloju, A. (2015): "Key Determinants of Non-performing Loans: New Evidence from a Global Sample", Open Economies Review, Springer, vol. 26, no. 3, pp. 525-550.

monetary policy. In this respect, the CBS might consider dedicating staff to support financial stability related research. In this context, such a person(s) could be from the existing Research Department – Monetary and/or Real Sector and should closely work with the Financial Stability Department to gain expertise in financial stability and better understand the department's needs.

44. **Strengthening the analytical toolkit will allow the CBS to provide more in-depth financial stability analyses and assessments in the report.** The toolkit is critical for the quality and rigorousness of the report. It will also provide the CBS more credibility with potential for a better impact on markets participants, limiting systemic risk by positively influencing them.

Data Sources and Statistics

45. **All relevant available data sources should be utilized to identify and assess key financial stability risks.** The report uses mostly balance sheet data for financial institutions that are available for the year-end. As the report is supposed to be published in October, there is an approximately 3-quarter lag between when data are available, and the report is published. This might make the report outdated, especially during times of market turbulence. To overcome this issue, more recent financial market data should be used before the final publication. In fact, the report does not have to have the same cut-off date for all data sources as it implies losing information. However, all cut-off dates for different data sources should be clearly stated in the report.
46. **The possibility to use credit registers for statistical/financial stability work should be explored.** Data registers are a unique data source that is crucial for a deep financial stability analysis and assessment. In this respect, it provides information on observed PDs and loss given defaults (LGDs). Based on those data, indicators like default rates or average LGDs for different loan portfolios could be calculated. As banks dominate the financial system in Suriname, credit risk is crucial for a comprehensive financial stability assessment. For this reason, the CBS should ensure that credit register(s) will be set up in a way that makes it possible to use them for a complex statistical analysis, not only for the supervision of individual cases. The quality of the report would highly benefit from this important data source(s).
47. **The CBS should initiate a discussion on software/tools that would be used for processing of large data in the bank.** The financial stability toolkit should employ all relevant micro data that are available. This could be, for example, data from credit register(s) once it is set up. However, the CBS has already some data sources that would need such a tool to utilize them for financial stability purposes. This could be, for example, data from payments systems. The bank should train or hire staff able to work with large data in the context of financial stability. The potential outcome of such a move should be utilized in the report.
48. **The existing data gaps could be covered by different surveys initiated with the industry.** There are currently many data gaps that prevent the bank from further elaborating on financial stability assessments. In this respect, the CBS could initiate a survey with the industry that would help to overcome those gaps. This could cover especially the information related to credit risk given its prominent role in the financial system and cyber risk as the new emerging risk that is not monitored yet. Credit risk could be covered, for example, by a bank-lending survey.
49. **Such surveys should collect all crucial missing information related to the key financial stability risks, especially in relation to credit risk.** This might also partially address the lack of use of credit register(s). The surveys could cover especially the following information:
- ◆ Average PD/default rate for corporate loans, consumer loans and mortgages;
 - ◆ Average LGD for corporate loans, consumer loans and mortgages;

- ◆ Average lending rates for corporate loans, consumer loans and mortgages;
- ◆ Information for corporates could potentially be further broken down to SMEs and large corporates;
- ◆ Information on type of collateral – real estate, other assets, etc.
- ◆ Average deposit rates.

50. **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 impact exceeding the defined threshold,
- ◆ Total losses related to cyber incidents,
- ◆ This could be potentially broken down by type of cyber incidents e.g., malware attack, phishing attack, insider threat, etc.

51. **Any other information/survey that would address the existing data gap based on the risk identified could be further considered.** This could reflect any potential new emerging risks or any existing data gaps beyond the mentioned examples.

V. Conclusions

52. **CARTAC technical assistance reviewed all relevant aspects to enhance the FSR of the CBS.** It covered the organizational and operational setup, communication, structure, and the content of the report including the analytical toolkit and data sources. It aimed to provide recommendations on all areas which might influence the report, not only directly, but also indirectly in terms of providing better analyses and risk assessments improving the report's quality.
53. **The mission concluded that the preparation of a detailed FSR production plan is critical and could facilitate improvements and bring some synergies between different teams involved in its production.** This needs to include different steps and set up the firm date of the publication. Moreover, it is important that it is discussed with all departments involved to obtain their views and commitments on timelines. To provide more up-to-date information, the CBS should also target semiannual FSR releases in medium to long term.
54. **The preparation of communication on the report is another important step that needs to be taken by the CBS.** The report should be established as the key communication tool. In this respect, a press conference and further subsequent presentations of the report should be organized. Apart from the external communication, it is critical that there is also an extensive internal communication among different teams contributing to the report, which is organized in a structured way.
55. **The broader macro-context and a more forward-looking perspective should be reflected in the report that needs to be streamlined to follow the central story with the key messages that are clear and easy to understand to readers with limited knowledge on the financial system in Suriname.** This could be facilitated by the change of the report's structure to top-down. In this respect, it should start with the key risks and then elaborate on them in more detail. The report would be also easier to read by adding mission statements/themes to each paragraph. For more descriptions of some new methodological improvements or more specific topics, the report should use boxes and some more detailed information, especially statistics could be moved to annex(es) when appropriate. The revised report should contain a foreword, executive summary, overview of the key risks for financial stability in Suriname, the internal and external macroeconomic environment and the potential implied tail risks, the real sector assessment including the property market, and financial sector assessment of all segments including financial system infrastructure.
56. **The report should reflect all important elements of financial stability assessment as the regulatory framework and the analysis of the real sector.** A clear understanding of the regulation will allow readers to properly interpret all indicators provided in the report. In addition, the analysis of the real sector is crucial as it is the key element especially for credit risks for banks dominating the financial system in Suriname.
57. **Work on the financial system beyond banking should be enhanced.** This must cover especially bank-like activities carried out by non-banks and the assessment of potential spillover risks from non-banks to banks. This could be facilitated by more extensive cooperation between insurance, pension, and banking teams.
58. **The quality of the report could be also improved by the revision of the existing financial stability analytical toolkit.** This includes addressing the existing overlaps, further enhancements of stress test methodologies or developing cross-sectoral interconnectedness network and should be supported by the increased headcount of the Financial Stability Department. In this context, the relevant financial stability economic research plays an important role and therefore should be initiated. To facilitate this work, a discussion on software/tools to use for large data processing should be organized and the implementation plan prepared.

59. Finally, the mission reviewed and provided recommendation on the use of existing as well as potential new data sources that should be fully utilized for financial stability purposes. The report should extend utilized data sources to the latest available information instead of having the same cut-off dates which are driven by annual data. Those cut-off dates should be clearly communicated for different data sources and some existing data gaps could be addressed by conducting surveys. Finally, the possibility to use credit register(s) for statistical/financial stability work should be investigated and the implementation plan should be prepared.