



MACROPRUDENTIAL POLICY TOOLS FOR JAMAICA

DISCUSSION PAPER

BANK OF JAMAICA

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Invitation for comments

Macroprudential policy describes the instruments and approach available to Bank of Jamaica for the management of systemic risk. This discussion paper is being circulated to entities licensed under the Banking Services Act and other relevant stakeholders. The Bank invites the views of interested parties on the proposed development of a macroprudential policy toolkit in order to fulfill its mandate for the management of systemic risk.

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Comments on this discussion paper will be received up to the close of business on September 30, 2020. Comments should be submitted via email to wayne.robinson@boj.org.jm or by post to:

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Table of Contents

Executive Summary	3
1.0 Introduction	4
2.0 Macroprudential Objectives and Policy Tools	5
3.0 Proposed Macroprudential Instruments for Jamaica.....	8
4.0 Macroprudential Policy Decision-making.....	11
4.1 Decision of Intervention - Guided Discretion	12
4.2 Application of Instruments - Communication Strategy.....	13
4.3 Potential Challenges	14
5.0 Next Steps.....	15
Appendix 1	18
Appendix 2	19
Appendix 3	21

Executive Summary

Experiences with various financial and economic crisis have highlighted the economic and financial cost associated with excessive leverage and interconnectedness of financial systems. Consequently, these crises have reinforced the need for robust macroprudential policy. Macroprudential policy entails the use of prudential actions to contain systemic risks, that if realized would cause widespread implications for the financial system and the real economy. Effective macroprudential policy requires the ability to detect risk to financial system stability, the formulation and application of appropriate instruments, and the communication of such actions to relevant stakeholders and the public at large.

Jamaica has already established a framework for macroprudential policy, the goal of which is to mitigate and reduce systemic risks arising from excessive pro-cyclicality in the financial system and those systemic risks arising from the structure of the financial system. The Bank of Jamaica (Amendment) Act, 2015 defines this policy framework and further assigns to Bank of Jamaica the institutional responsibility for macroprudential oversight. The Bank of Jamaica (Amendment) Act, 2015, also assigns to the Bank the ability to issue prescriptive rules and codes for the management of systemic risks.

As part of its role in macroprudential oversight, Bank of Jamaica plans to strengthen its ability to respond to threats to system stability by having available the option to utilize various macroprudential tools. As such, the Bank is now in the process of examining an initial set of macroprudential policy instruments to be used for the direct management of systemic risks. This paper discusses key elements of macroprudential policy and presents some of the key issues for effective implementation of macroprudential policy. Moreover, the paper proposes an initial set of macroprudential tools to be developed and implemented for Jamaica.

In 2010 the Basel Committee on Banking Supervision released the Basel III capital standards, to which the countercyclical capital buffer forms a part of the standards for risk-based capital. This countercyclical capital buffer is a potentially powerful instrument for the reduction of systemic risk associated with cyclical financial developments. It is within this context that the Bank proposes formalizing its ability to include a time varying component of capital requirements - countercyclical capital buffers through regulatory adjustments. Secondly, the Bank proposes formalizing its ability to require additional prudential requirements when deemed necessary, for banks identified as systemically important.

Concurrently, to enhance the capacity for systemic risk identification associated with the rate of financial expansion, the Bank will aim to enhance its collection of debt profile data of borrowers. Financial expansion, through credit and other forms of debt financing, poses systemic risk if there lacks the associated growth in income and the ability to repay more generally. As a result, loan level data of household and corporate sector borrowers is

particularly important for the calibration of borrower-based macroprudential instruments such as loan-to-value, loan-to-income and debt servicing ratios.

1.0 Introduction

- 1.1 Prior to the 2007/08 global financial crisis, policy aimed at maintaining financial stability was mostly limited to micro prudential supervision. The crisis highlighted the fact that institution specific prudential requirements can be inadequate for managing systemic risks. It became evident that banks and other financial intermediaries, can behave in a way that collectively undermine the system as a whole despite each appearing financially sound.
- 1.2 Regulators and financial markets participants now recognize the need for assessments of systemic risks and the implementation of appropriate policies. Macroprudential surveillance and policy, concerns itself with factors that affect the stability of the overall financial system, which depends on among other things cyclical macro-financial developments and the overall structure of the sector.
- 1.3 As a result, macroprudential policies are calibrated for system-wide and time-varying risk while, concurrently micro-prudential policy takes an institution-specific approach. These two financial risk management frameworks, therefore, complement and reinforce each other in supporting sound financial institutions and a stable financial system.
- 1.4 The mandate and overarching framework for Bank of Jamaica's institutional responsibility for financial system stability was established with the Bank of Jamaica (Amendment) Act 2015. This amendment assigns to the Bank responsibility for macroprudential oversight and assigns the power to develop rules and codes for preserving the stability of the financial system.
- 1.5 The Bank has in statute several prudential supervisory tools and has further outlined a road map for the implementation of Basel II and III requirements, many of these requirements can as well serve macroprudential purposes. As part of its role in macroprudential oversight, Bank of Jamaica plans to strengthen its ability to respond to threats to system stability due to excessive pro-cyclicality between financial markets and the macroeconomy and those threats due to the influence of systemically important banks.
- 1.6 As such, the Bank will seek to complete consultative processes on the implementation of a countercyclical capital buffer (CCyB) and consultation for the

identification and provisions for additional capital requirements when deemed necessary for domestic systemically important banks (D-SIBs).

- 1.7 The CCyB will aim to curtail systemic risks associated with the financial cycle. It will require the building up of additional capital during periods of excessive asset and credit expansion, while releasing these buffers during normal periods or during a financial and economic downturn. Additionally, based on their systemic importance, the ability to apply special capital buffers for D-SIBs will enhance the Bank's ability to manage systemic risks associated with the extent of interconnectedness in the system. Both sets of macroprudential tools should provide to the Bank the ability to adjust capital requirements depending on current and forecasted macro-financial conditions.
- 1.8 To further complement these measures, the Bank will seek to enhance its ability to assess the repayment capacity of borrowers in the economy. These measures will help determine the resilience of borrowers to fluctuations in economic conditions, and consequently the overall profile of credit risk. The susceptibility of the financial system to sudden and prolonged reversals in economic activity, that impact a wide segment of borrowers, will be reduced from the proper application of borrower-based macroprudential instruments such as loan-to-value, loan-to-income and debt servicing ratios.

2.0 Macprudential Objectives and Policy Tools

- 2.1 The aim of macroprudential policy is to safeguard and strengthen financial system stability by preventing new systemic risks, managing and mitigating existing ones, while maintaining the financial system's contribution to economic value creation. The objective therefore, involves recognizing pro-cyclicality of the financial system and applying banking requirements to soften the intensification of financial and business cycles. In addition, macroprudential policy involves strengthening the resilience of the financial system based on its structural interconnections.
- 2.2 The Bank achieves these main macroprudential objectives by structuring its surveillance of financial system risks according to the following intermediate objectives:
 - i. Mitigating and managing excessive credit growth and leverage.

- ii. Mitigating and preventing excessive maturity mismatch between the funding and placements.
- iii. Mitigating and preventing concentration of financial institution exposures to specific sectors or asset classes.
- iv. Limiting the systemic impact of systemically important financial institutions.
- v. Strengthening the resilience of financial infrastructure.

2.3 Macroprudential instruments are needed to accomplish the abovementioned objectives. Each tool should be legally binding and tailored to minimize the associated source of potential systemic risk. There are four main categories of tools used to minimize the potential loss from systemic risk exposures. These are:

- i. *Broad-based capital tools:* The purpose of these tools is to enhance the overall resilience of the sector. Such tools can be implemented to address vulnerabilities due to pro-cyclicality and/or the structure of the system. They can as well be applied specifically to particular types of risk exposures. Examples of these capital tools include, a countercyclical capital buffer, a leverage ratio, and caps on credit growth.
- ii. *Asset-side tools:* These tools are used to address vulnerabilities that arise from excessive asset exposures. For example, caps on the share of exposures to specific sectors can be utilized to reduce strong common exposures within risky loan segments. In addition, loan restrictions, such as *loan-to-value*, *debt-service-to-income* or *loan-to-income ratios*, aim to reduce the exposure of financial institutions to asset price and income shocks experienced by their debtors.
- iii. *Liquidity-related tools:* Such instruments are primarily used to address the build-up of liquidity risks that can arise from financial booms. However, these tools can also affect loan growth. They include tools that ensure an adequate stock of liquid assets, such as *reserve requirements*, and the *liquidity coverage ratio*. Other examples of tools used to manage systemic liquidity risks also include *caps on loan-to-deposit* ratios and price-based tools such as a *levy on volatile funding*.
- iv. *Structural tools:* These tools are used to address vulnerabilities that arise from excessive interconnectedness. These vulnerabilities can arise from either credit or funding exposures and the potential contagion that could

result from a financial shock. Structural tools aim to reduce vulnerabilities within the system that are due to the influence of systemically important financial institutions. These structural tools typically include quantitative limits on inter-institution exposures and enhancing the resilience of systemically important entities. Table 1 provides examples of instruments according to specific policy objectives.

Table 1: Examples of Intermediate Objectives and Macroprudential Instruments

1.	Mitigating and managing excessive credit growth and leverage 1.1. Countercyclical capital buffer 1.2. Time varying leverage ratio 1.3. Time varying loan-to-value limit and loan-to-income limit
2.	Mitigating and preventing excessive maturity mismatch and market illiquidity 2.1. Liquidity coverage ratio 2.2. Net stable funding ratio 2.3. Loan-to-deposit ratio
3.	Mitigating and preventing concentration of financial institution exposures to specific sectors or asset classes 3.1. Large exposure limits 3.2 Time varying risk weights on assets
4.	Limiting the systemic impact of misaligned incentives in terms of favouring certain financial institutions 4.1. Capital buffer for systemically important financial institutions 4.2 Restrictions on permissible activities
5.	Strengthening the resilience of financial infrastructure 5.1. Systemic risk buffer 5.2. Systemic liquidity surcharge

For detailed discussion see IMF (2014), Staff Guidance Note on Macroprudential Policy- Detailed Guidance on Instruments. Available at: <https://www.imf.org/external/np/pp/eng/2014/110614a.pdf>

3.0 Proposed Macroprudential Instruments for Jamaica

- 3.1 Jamaica's largest gap in its objective of managing systemic risk exposure are those related to pro-cyclicality and those related to the potential impact of large interconnected conglomerates. Pro-cyclicality refers to the evolution of aggregate risk fueled by the collective tendency of financial agents to assume excessive risk during financial upswings, often due to an over-optimism in expectations. Commonalities in behaviour may give rise to common weaknesses across the system. Further, the presence of large interconnected conglomerates will exacerbate the likelihood of contagion associated with initially localized financial shocks to these entities.
- 3.2 As a result, the Bank as a part of its Basel III implementation, will address these exposures with the initial development and implementation of a CCyB for all banks during excessive financial expansionary periods. In addition, the Bank will also develop an additional macroprudential tool that will apply special capital to D-SIBs. The Bank is also proposing collating loan level borrower data for the eventual calibration of borrower-based tools such as loan to income limits.
- 3.3 Jamaica's financial sector comprises of large financial groups. These groups encompass different types of financial businesses to include banks, insurance companies, securities dealers and other related companies. As it relates to macroprudential supervision, the prevalence of financial groups within Jamaica's financial system can impact the effectiveness of macroprudential tools. The effectiveness of a macroprudential tool can be limited, for example, if a financial institution within a group shifts its risky business activities to another institution within the group.
- 3.4 Micro prudential supervisory rules require the independent financial soundness of related entities. Despite this, financial conglomeration may still create systemic risks due to complex organizational structures. In recognition of such risks, both the Financial Services Commission and the Bank of Jamaica have issued consultation papers on consolidated supervision of financial conglomerates.¹ Given the potential for this type of leakage in macroprudential surveillance and policy, it is important that all areas of the financial system are monitored and that these potential effects

¹ Draft Guidelines for Consolidated Supervision for Non-Deposit-Taking Financial Institutions. Available at: www.fscjamaica.org; and Consolidated Capital Adequacy Requirements. Available at: http://www.boj.org.jm/uploads/news/consultation_paper_on_consolidated_capital_adequacy_requirements_reviewed_30_nov_16_for_website.pdf

are taken into consideration in the designing and calibrating of macroprudential tools. Accordingly, the application of macroprudential policy will account for combined risk exposures due to conglomeration.

Countercyclical Capital Buffer (CCyB)

- 3.5 A CCyB will encompass a capital add-on, expressed as a percentage of risk-weighted assets during a financial expansion when credit growth and financial imbalances are assessed as excessive. The CCyB will vary through time depending on the risk environment facing banks. The objective of the application of the CCyB is to enable banks to have a sufficient buffer of capital for potential reversal of financial trends. In addition, when financial conditions tighten, this buffer is relaxed to allow for the maintenance of smooth lending and financial conditions. Decisions on introducing or releasing the CCyB are based on the movements of selected risk indicators.² Note that, the CCyB is an extension of the capital conservation buffer, both of which are part of a 'combined buffer requirement' which is in addition to minimum levels of going concern capital.
- 3.6 The CCyB will be applied to all regulated Deposit Taking Institutions (DTIs) incorporated in Jamaica. The CCyB rate that will be set by the FSSC will augment the capital that each institution has in terms of their Jamaican credit exposure. The calibration of an appropriate CCyB guide for Jamaica will be conducted to determine the conditions by which the CCyB is applied or released and at what rate. In addition, for entities with cross-border arrangements, the Bank may seek to enter into institutional arrangements to ensure coordination of actions that may be taken with regard to financial institutions situated overseas that may be the parent, subsidiary or a branch of a Jamaican financial institution.
- 3.7 It is proposed that Bank of Jamaica make decisions in relation to CCyB on a semi-annual basis. Accordingly, the Bank will communicate its assessment of the macro-financial conditions and the prospect for potential buffer decisions. The implementation of a CCyB regime will require consultation on the principles in making buffer decisions and the calculation of the buffer guide.

² See, Guidance for national authorities operating the countercyclical capital buffer. Available at: <https://www.bis.org/publ/bcbs187.pdf>.

ii. See, Range of practices in implementing the countercyclical capital buffer. Available at: <https://www.bis.org/bcbs/publ/d407.pdf>

Capital Buffer for Systemically Important Banks

- 3.8 Financial institutions are categorized as systemically important when the financial shock they receive have significant propagation to other financial entities and the real economy. Such localized shocks may give rise to losses and liquidity shortages in the rest of the financial system, both through direct and indirect channels.
- 3.9 Managing the systemic risks associated with large interconnected conglomerates often entails the application of special additional buffer for such banks. At the same time, internal strengthening of systemically important institutions' capacity reduces the probability of moral hazard arising from implicit central bank guarantees for the liabilities of these institutions.³
- 3.10 In addition to minimum prudential capital adequacy requirements, D-SIBs will have to meet the requirement relating to this special capital buffer when activated. This instrument serves to reduce the probability of disruptions in the operations of a systemically important financial institution. As in the Basel III framework, the capital surcharges for a D-SIB will be based on the institution's degree of systemic importance. The legislative framework will therefore first require the calibration of additional levels of capital that corresponds to an adequate reduction in systemic risk for these institutions.

Loan-to-Income Requirement and Debt Servicing Limits

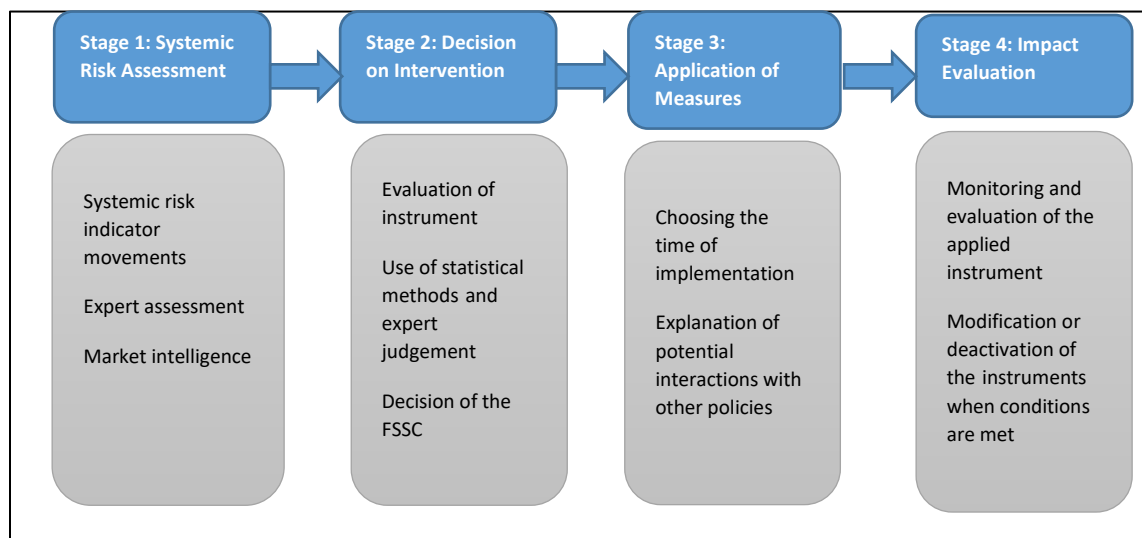
- 3.11 During excessive financial upswings, caps on borrower's loan-to-income or debt servicing ratios will help contain the procyclical feedback between credit and asset prices and associated systemic risks. By setting caps on debt burden, the ability of the system to manage on expected loss or market shocks will be enhanced.
- 3.12 More broadly, caps on borrowers' debt burdens will reduce institutions' exposure to house price shocks by increasing the equity in the residential property. Such caps prevent loan beneficiaries from excessive borrowing. The potential for the Bank to utilize information available from Jamaica's credit bureaus will also be explored. The Bank will aim to take steps first to collate appropriate borrower-based debt data. This exercise will also explore the mechanisms necessary for receiving such data from banks and ensuring storage and use conforms to global best practice for data protection.

³ For detailed guidance for implementing capital buffer for systemically important banks see, A framework for dealing with domestic systemically important banks. Available at: <https://www.bis.org/publ/bcbs224.pdf>

4.0 Macprudential Policy Decision-making

- 4.1 The proposed set of macroprudential instruments, described above, will be time varying. The use of these tools necessitates a process by which decisions on their activation and level are determined. This process will first require the Bank to assess the extent of exposure to systemic risks. Following, the process will include a decision on the time and level of activation. When risks to financial stability have receded or, alternatively, during periods of financial stress, the authority must decide whether to activate, deactivate or recalibrate the policy tools.
- 4.2 The macroprudential policy decision can be separated into four stages (see **Chart 1**):
- i. **Systemic risk assessment** – This assessment process involves monitoring and analyzing movements in various indicators of both the structural and time dimensions of systemic risk (see Table 2 in Appendix). It is important to assess whether the movements occur within normal risk tolerance levels or represent excessive and overly risky financial activity. In most cases, such determination is not dependent on any single threshold of any one indicator but requires the analysis of a broad set of indicators and as well stress testing.
 - ii. **Decision of intervention** – If excessive systemic risk exposures are identified, early communication to market participants of these exposures serves as a part of the Bank's intervention strategy. In some instances, the issuance of warnings or recommendations will suffice and can negate the need for the implementation of macroprudential tools. If the risk has been determined to be at a level that requires the implementation of tools, the efficiency of these instruments is assessed in relation to the specific objective of the intervention.
 - iii. **Application of instruments** - Macroprudential policy involves deciding when to implement the instruments. The timeliness of the intervention requires an assessment of the core and supporting indicators related to the particular macroprudential objective, while the length of the preparatory period depends on the specific macroprudential instrument. Premature or late implementation of an instrument can create higher costs. For instance, the premature introduction of an instrument can lead to financial system disruptions, such as shifts in certain types of financial flows outside the banking sector. On the other hand, the delayed implementation of an instrument can result in a higher build-up of systemic risk, which could likely result in higher mitigation costs and a lesser impact.

Chart 1: *Macroprudential Policy Cycle*



- iv. **Assessment of effectiveness** - The macroprudential policy cycle involves evaluating instrument implementation, i.e. whether the set objective has been achieved. Whether the instrument has caused certain undesired effects is also assessed at this stage. If the conditions so require, the implemented macroprudential instrument may be modified or deactivated.

Decision of Intervention - Guided Discretion

- 4.3 There are trade-offs in the implementation of macroprudential policy. These can include financial institutions foregoing seemingly profitable opportunities and costs associated with the raising of additional capital. These short-term costs are often readily visible while benefits of system stability are less obvious and occur over the medium to long-term. Faced with public pressure in response to these short-term costs, the Bank could be at risk of an inaction bias. However, a clear macroprudential framework that outlines when the Bank will act, can be used to overcome such potential inaction.
- 4.4 Systemic risk exposures may not unfold in a specific or predictable manner. As a result, leading indicators that worked well at predicting past crises may not have the same predictive power or reflect accurately the magnitude of risk of future events. Given these challenges and the fact that financial conditions are a function of current economic policies and changing economic conditions, it is important that indicators of systemic risk are interpreted in a state-dependent way, which requires expert judgement.

- 4.5 The proposed macroprudential toolkit will combine both rules based and discretionary elements. This guided discretion approach refers to the use of judgement that is firmly anchored by a clear set of principles on associated indicators. Guided discretion allows the Bank to supplement its set of quantitative analysis with appropriate qualitative information. In addition, expert judgement will account for the Bank's specific risk tolerance and the general economic and financial context within which market participants operate.
- 4.6 Fiscal and monetary policies, as well as other financial sector policies, can have implications for financial stability, and can either complement or conflict with macroprudential policy. For example, expansionary monetary policy can accelerate financial expansion beyond systemically safe rates. Therefore, the Bank will have to proactively examine the confluence of policies that impact financial and economic conditions in its implementation of macroprudential policy.
- 4.7 The Bank's communication strategy will be used to encourage credibility and market confidence when decisions are made. More generally, best practices in the use of guided discretion includes the use of specific indicators and instruments, their thresholds and calibration, while considering country-specific circumstances.

Application of Instruments- Communication Strategy

- 4.8 The macroprudential toolkit includes a communication strategy. The communication strategy can help to curtail systemic risks by first attempting to persuade market players to implement self-corrective measures. Secondly, by presenting the Bank's forward-looking view, it helps to clearly define and notify audiences of potential policy actions.
- 4.9 The communication strategy has the impact of ensuring transparency and accountability. Furthermore, the communication strategy will present the decisions of the Financial System Stability Committee.
- 4.10 It is important that communication on macroprudential policy be tailored to the specific target audiences.⁴ Macroprudential policy communication will include the following:
- i. *Communication on macroprudential strategy* – i.e communication of the main message and objective of a macroprudential policy, the decision-

⁴ See Appendix 3 *Target audiences by communication method*.

making process as well as the institutions impacted by the macroprudential policy instruments.

- ii. *Communication on the assessment of systemic risk* – i.e. providing financial stability analysis and assessments conducted by the macroprudential authority whether macroprudential actions have been taken.
- iii. *Communication on the activation of a macroprudential measure* – i.e. describing the risk identified and how the measure is expected to correct or mitigate the risk.
- iv. *Follow up communication* – i.e. communicating the results of assessments after measures and/or recommendations have been made.

4.11 There are a variety of avenues that the Bank will utilize for communication. The most common types used by central banks or national authorities are publications, internet-based tools, press releases and conferences, FAQ documents, interviews, and events such as speeches and seminars. When selecting the appropriate communication medium, the macroprudential authority has to take into consideration the desired timespan of the message.

4.12 The use of structural tools is especially important in the early stages of the implementation of the macroprudential framework; this method requires the communication of more comprehensive information. However, as macroprudential policy develops, dynamic communication, which is effective in conveying short-lived messages and positions, will also become relevant. Two-way communication is also important to facilitate feedback from the target audience. This aids in the formulation and calibration of macroprudential measures as well as provides opportunities to further explain the rationale, understand the viewpoint of the target audience and manage, or influence their expectations.

Potential Challenges

4.13 Factors posing a challenge to the use of macroprudential tools in Jamaica include the following:

- i. *Macroprudential policy is relatively new and is predominantly used in advanced economies.* Therefore, it may be challenging to find evidence of its effectiveness, particularly in small developing jurisdictions. Furthermore, some tools are only effective under some circumstances, making it difficult to show effectiveness without a wide range of country experiences.

- ii. *Macroprudential policy tools are many and varied and their transmission mechanisms to achieve the various intermediate targets are uncertain.* It can also be difficult to map the achievement of the intermediate target with any specific macroprudential policy tool when several tools are used. Also considering that, these tools can interact causing unintended consequences, further highlighting the complexity involved in measuring the effectiveness of individual tools.
- iii. *It is challenging to isolate the effects of macroprudential policy tools.* The intermediate objectives that macroprudential policy tools are used to achieve will be influenced by other policies, economic and financial developments that will make it challenging to disentangle the effects of these tools from other influences.
- iv. *Macroprudential policy tools can result in regulatory arbitrage both within and across jurisdictions.* The implementation and tightening of macroprudential instruments can create leakages, as financial institutions can shift business activities to another type of institution within their banking group not regulated by macroprudential policy, thereby limiting the overall effect of macroprudential instruments on the financial system. Consequently, macroprudential policy tools can result in undesirable spillover effects into other jurisdictions or other domestic industries when financial institutions respond by shifting their risky activities elsewhere. It is therefore important for the macroprudential authority to monitor all areas of the financial system, take actions to contain domestic risks, and consider the possibility for negative cross-border and domestic effects when designing and calibrating tools. In addition, collaborative work, such as reciprocity across integrated regions can help to address leakage and undesirable spillovers.

5.0 Next Steps

- 5.1 The next steps for developing Jamaica's macroprudential tool kit involves calibrating a CCyB Guide for Jamaica. This will allow the Bank to increase banking sector capital requirements based on current and projected macro-financial conditions. At the same time, the Bank will seek to have the ability to apply special capital requirements to systemically important institutions depending on assessments of systemic risk. In addition, to enhance the Bank's ability to gauge systemic risk in the application of the above mentioned time-dependent capital

requirements, the Bank intends to take the necessary steps for the collation of the debt profile of the household and corporate sectors.

Macroprudential Capital Buffers

- 5.2 The Bank will first seek to undertake a public consultation process on its framework for requiring additional capital buffers for domestic systemically important banks and on its framework for time-varying capital buffers. The objective of which are to enhance the resilience of the system to shock, thus reducing the probability of undue contagion within the financial system and spillover to the real economy.
- 5.3 With regard to a capital surcharge for systemically important banks, the Bank of Jamaica will first finalize its methodology for the identification of D-SIBs aimed at establishing a formal set of criteria for their designation. A proposal for these criteria will be prepared for the Financial System Stability Committee, which will set out the conceptual basis for structural capital buffers for systemically important institutions and identification of these institutions in the Jamaican financial system. Concurrently, the framework for requiring additional time-dependent capital buffers will be finalized.
- 5.4 After the D-SIB and countercyclical capital buffer frameworks are finalized, the Bank will seek to amend capital regulations to allow for the application of a capital surcharge for a D-SIBs when deemed necessary. The implementation plan for capital buffers is as follows:

Chart 2: Implementation Plan for the Macroprudential Capital Buffers

Research on the calibration of CCyB Guide and special buffer for D-SIBS	June 2021
Industry consultation	August 2021
Drafting of the appropriate provisions to capital legislation	September 2021
Capital buffer framework ready for implementation	December 2021

The Collection of Granular Loan Level Data

- 5.5 Aggregate statistics on debt repayment capacity are insufficient for the development of a comprehensive understanding of the underlying systemic risks associated with lending to the real economy. As a result, loan level data will provide important information to help guide policy discretion in the setting of macroprudential policies.

- 5.6 Further, the availability of granular borrower-based debt and income statistics is a pre-requisite for the introduction of additional macroprudential policy tools such as loan-to-income and debt service-to-income ratios. The availability of such data will support the calibration of these instruments.
- 5.7 The Bank will seek to explore how the procedures for submission of prudential returns could include data on borrower characteristics. In this regard, discussions with the industry will be undertaken. The potential for the Bank utilizing information available from Jamaica's credit bureaus will also be explored. This exercise will explore the mechanisms necessary for receiving such data from banks and ensuring storage and use conforms to global best practice for data protection.
- 5.8 More specifically, the Bank will seek to regularly collect data on:
- i. Borrower characteristics – to include income and total asset value.
 - ii. Loan details – to include loan purpose, originating and current balance, originating and current interest rate type, current interest rate, scheduled monthly repayment.
 - iii. Collateral details - property type, location, and originating and current property value.
 - iv. Borrower and loan identification codes.

Appendix 1

Chart 3. Sample of indicators used in the Systemic Risk Identification and Assessment Stage of the Macroprudential Policy Cycle

Objectives	Types of Indicators	Indicators
Objective 1: Mitigate and manage excessive credit growth and leverage	Credit-to-GDP measures	Private Sector Credit to GDP gap Total Credit to GDP gap
	Credit Indicators: year-on-year growth (%)	Total Credit Credit to Households Credit to Non-Financial Corporates
	Asset Price: year-on-year growth (%)	Residential Real Estate Price Index
	Leverage	Leverage
Objective 2: Mitigate and prevent excessive maturity mismatches and market illiquidity	Cumulative Maturity Gap to Total Assets (%)	Cumulative Maturity Gap to Total Assets (%)
	Maturity Transformation (%)	Maturity Transformation (%)
	Liquidity Transformation (%)	Liquidity Transformation (%)
Objective 3: Limit direct and indirect exposure concentrations	Exposure to Financial Markets	Composite Indicator of Systemic Stress Net open position to capital
	Exposure to Sovereign Risk	Public Sector Debt to total assets
	Exposure to Households and Corporates	Household debt to GDP
		Household Net Financial Position to GDP
		Corporate debt to GDP
		Corporate Net Financial Position to GDP
Objective 4: Limit the impact of interconnectedness, systemic importance and misaligned incentives	Exposure to Real Estate	Mortgages to Assets
	SIFIs	Total SIFI group assets to total system assets
	Shadow Banking	NDTFIs asset share to total system assets
	Dollarization Indicators	FX investment holdings to total investment
		FX loan & investment holdings to total investment
Objective 5: Strengthen the resilience of the financial system & infrastructure	Stress Test Results Post shock CARs	FX deposits to total deposits
		Liquidity funding risk stress test
		Foreign exchange risk stress test
		Credit risk stress test
	Composite Indices	Interest rate stress test
		Macro-Financial Index
		Micro-Prudential Index
		Banking Stability Index
		Aggregate Financial Stability Index

Appendix 2

Examples of Other Macroprudential Instruments

1. **Macroprudential restrictions on exposure to a particular sector or asset class** is a regulatory restriction on a bank's exposure to a particular sector or asset class, to the level established as a core capital percentage (e.g. exposure cannot exceed 10% of core capital). Excessive exposure to a particular sector or a single asset class can result in the vulnerability of the financial system to common shocks, either directly through balance sheet effects or indirectly through asset fire sales and contagion. For example, a sudden price fall in the real estate market can disrupt the entire banking system if there is a large exposure to that market. This macroprudential restriction is aimed at reducing concentration risk, which diminishes the possibility of sectoral risk contagion in the system and reduces the risk of counterparty default.
 - *Sectoral (countercyclical) capital buffer* is a temporary additional capital buffer that can be introduced given banks' exposure to specific sectors or asset classes, such as residential mortgage loans, unsecured consumer loans or foreign currency loans to unhedged households. The objective is to reduce credit activity concentration in sectors with growing or heightened systemic risk. The sectoral capital buffer requirements can be expressed as a percentage of risk-weighted assets and may be changed during the financial cycle. Sectoral capital buffers can be implemented in two ways: (1) by introducing sectoral risk weights or (2) by introducing an additional capital buffer, which is implemented depending on banks' risk-weighted exposure to particular sectors. When tighter capital requirements translate into higher funding costs and lending rates, credit growth may also be restrained (credit supply channel).
2. **Systemic liquidity risk increases when banks rely excessively on short-term and unstable funding without sufficient liquid assets.** This, in turn can generate overall market illiquidity through direct and indirect interconnectedness among financial institutions (structural systemic risk). Stable funding requirements are the most appropriate type of instrument to mitigate and prevent excessive maturity mismatch and market illiquidity since they reduce the need for frequent refinancing of banks.
 - *Liquidity coverage ratio (LCR)* requires banks to hold assets that are easily convertible into cash (highly liquid assets) should enable a bank to service its liabilities for a 30-calendar day liquidity stress scenario. This period is considered to be long enough for the bank management and supervisor to take appropriate corrective measures for adequate bank resolution.

- *Net stable funding ratio (NSFR)* is a regulatory requirement for covering the estimated amount of long-term assets by the available amount of stable long-term funding (over a one-year time horizon when the financial system is under stress). This restriction should encourage reliance on more stable (longer-term) funding sources. Given that, the NSFR is focused on long-term funding risks, it is used to complement the LCR.

3. Strengthening the resilience of financial infrastructure. Smooth performance of financial transactions is required for the preservation of confidence in the financial system while safeguarding its stability. This makes it necessary to limit risks that can be due to shocks with long-term effects, which are not related to financial and business cycles.

- *Systemic risk buffer* - is an additional capital buffer expressed as a percentage of risk-weighted assets. This instrument reinforces the resilience of individual financial sector segments, and of the sector as a whole to potential long-term, structural shocks which are not related to cycles (e.g. a change in regulations or change in accounting standards, modified complexity of the financial system, etc.). The introduction of a capital buffer for these purposes increases financial capacity, which in turn improves the ability of the system to absorb potential losses. Although the main purpose of this instrument is to provide protection against structural systemic risk, it can also be used for risks associated with business cycles. The systemic risk buffer can be introduced for one, several or all institutions in the system. The introduction of this instrument should not jeopardize the performance of financial intermediation.

Appendix 3

Chart 4: *Target audiences by communication method*

Communication Method	General public	Financial institutions	Journalists	Other policy-makers
Financial Stability Reports	**	***	**	***
Press releases	**	***	***	***
Meetings on Financial Stability	*	**	***	***
Letters	n/a	***	n/a	***
Press conference/speeches	**	***	***	*
Social media	***	*	***	*
Risk dashboard	*	***	**	**
Educational documents (e.g. thematic notes, leaflets, brochures, FAQ documents)	***	*	***	*
Professional documents (analytical papers, working papers)	*	***	*	***
Public or targeted consultations	**	***	*	**
Website	***	***	***	***

Note:

¹ The number of stars reflects how well a particular communication tool can reach a certain target audience. Three stars (***) mean the most suitable communication tool, while one star (*) means the least suitable communication tool.

² This is a suggested categorization based on language and content of the message to the target audience.

Source: The ESRB Handbook on Operationalizing Macroprudential Policy in the Banking Sector.