BANK OF JAMAICA

Macroprudential Policy Report

Highlights

OCTOBER 2020

Contents

Preface

Bank of Jamaica frequently conducts assessments of the resilience and strength of the financial system. These financial system stability assessments inform the Bank's macroprudential policy. This report provides highlights of those assessments for the reporting quarter. The document is organized into five objective assessment areas, the analysis of which utilizes leading and coincident indicators relevant to the specific type of vulnerability. The aim of the report is to:

- *Convey Bank of Jamaica's financial system stability assessment.*
- *Make clear the link between the Bank's assessment and any policy action taken.*
- *Provide information on matters related to financial system stability.*

Overview

The financial sector has generally remained well capitalized despite the on-going impact of the Covid-19 pandemic and its dampening effect on the earning capacity of financial institutions. Entities continue to hold capital positions well in excess of the prudential minimum and there has been a broad shift away from risky investments towards less risky assets.

Risk exposure indicators for DTIs and SDs showed mixed results. In addition to a deterioration in foreign exchange risk across both sectors, there was some weakening in the household credit risk measure for the DTIs. There was, however, an improvement in interest rate risk exposure of the sector.

Composite indicators of macro financial conditions deteriorated. However, the micro-based measure of financial stability was broadly stable and continued to reflect a healthy banking system.

In the context of a decline in nominal GDP, related to the pandemic, there was a further increase in the credit-to-GDP gap for the June 2020 quarter, above Bank of Jamaica's early warning threshold. There was further deterioration in debt sustainability measures for the both the household and corporate sectors but credit metrics showed that financial institutions did not demonstrate any over-leveraging or substantial maturity mismatch during the review period.

As it relates to interconnectedness and potential for contagion, network analysis indicated that commercial banks and securities dealers continued to be the central players in the financial network. Furthermore, the network remained dense, reflecting increases in both interconnectivity and counterparty risks.

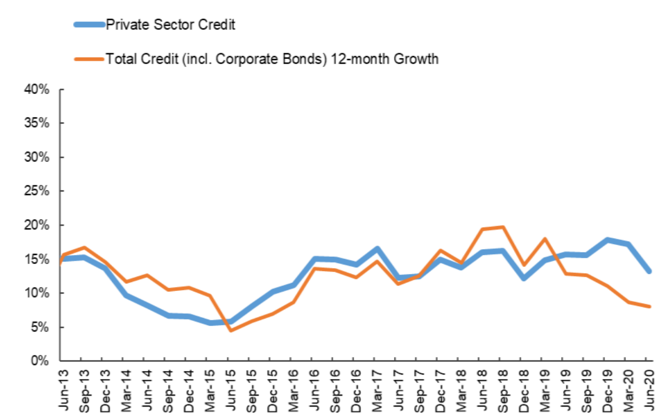
Objective 1

Mitigate and prevent excessive credit growth and leverage

1.0 Risks from excessive credit growth were assessed to be moderate during the review quarter as financial entities remained well capitalized to absorb moderate losses. Financial institutions' use of debt to fund asset expansion reflected mixed results across sub-sectors for the June 2020 quarter. This was reflected in a deterioration in leverage metrics for DTIs and general insurance companies by 5.1 per cent and 33.9 per cent, respectively and an improvement in leverage ratios for the securities dealers and life insurance companies.

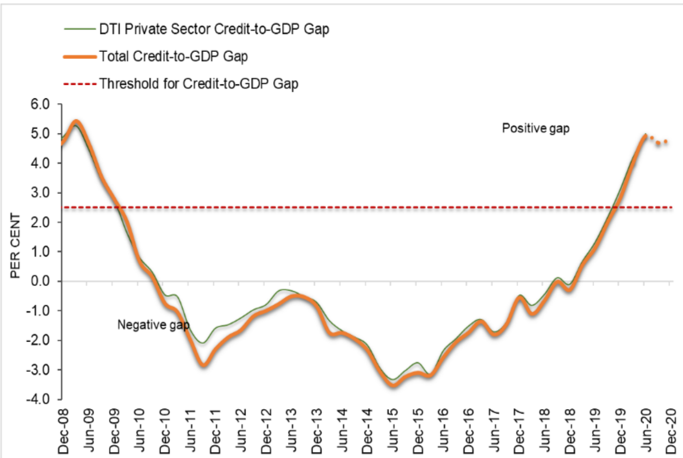
1.1 Total credit, including corporate bond issues, increased by 8.1 per cent for the review quarter, which reflected a deceleration in the pace of credit growth (see Chart 1.0).[5] This growth resulted in additional financing of $10.1 billion in the system compared to the March 2020 quarter. Accordingly, the total credit-to-GDP gap indicator grew to 4.9 per cent for the June 2020 quarter relative to 4.3 per cent at end-March 2020 (see Chart 1.1).

Chart 1.0 Growth in Credit



5 Total credit excludes loans to overseas residents and loans to other financial institutions. It includes financing through corporate bond issues.

Chart 1.1 Evolution of Credit-to-GDP Gap Indicators



Objective 2

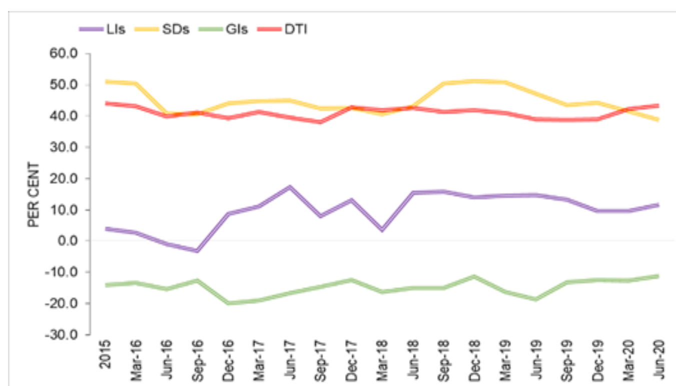
Mitigate and prevent excessive maturity mismatches and market illiquidity

2.0 The balance sheet of financial entities showed a slight deterioration in maturity structure and an improvement in liquidity coverage as reflected in maturity and liquidity transformation risks metrics. In this regard, for the review quarter, the financial system continued to demonstrate an improved ability to adjust to changing asset prices and liquidity outflows.

2.1 For the June 2020 quarter, there were marginal deterioration in maturity transformation for all financial sub-sectors, except for securities dealers. The worsening in the maturity mismatch ratios generally resulted from a greater than proportional increase in long-term assets relative to long-term liabilities and equity (see Chart 2.0). For securities dealers, the improvement in maturity transformation mainly reflected moderate growth in total financial assets as well as a faster pace of decline in their long-term liabilities & equities (7.1 per cent), relative to the decline in long- term assets (3.2 per cent). Additionally, there was no significant change in the maturity profile for DTIs at end-June 2020, relative to end-2019. In particular, the gap measures deteriorated marginally for both foreign and domestic currency, indicating a slight increase in vulnerability to interest rate increases and deposit withdrawals (see Chart 2.1). Nonetheless, the gap ratios remained in line with historical averages.

2.2 The extent of coverage of short-term liabilities with liquid assets improved for all sectors. The improvement in the ratios was mainly due to a greater than proportional increase in liquid assets relative to short-term liabilities for the June 2020 quarter (see Chart 2.2).[9]

Chart 2.0 Maturity Transformation[11]



[9] Liquid assets for DTIs and LIs grew by 8.9 per cent and 8.4 per cent, respectively while SDs recorded a 3.2 per cent decline for the March 2020 quarter. Short-term liabilities for SDs, LIs and DTIs declined by -5.1 per cent, -4.0 per cent 2.1 per cent, respectively. Meanwhile GIs reflected decline of -2.4 per cent for liquid assets and an increase of 28.3 per cent for short-term liabilities.

[11] Maturity Transformation (Long term) = (long term assets - long term liabilities - nonredeemable equity) / total financial assets.

Chart 2.1 Cumulative Maturity Gap (% Assets) by Currency

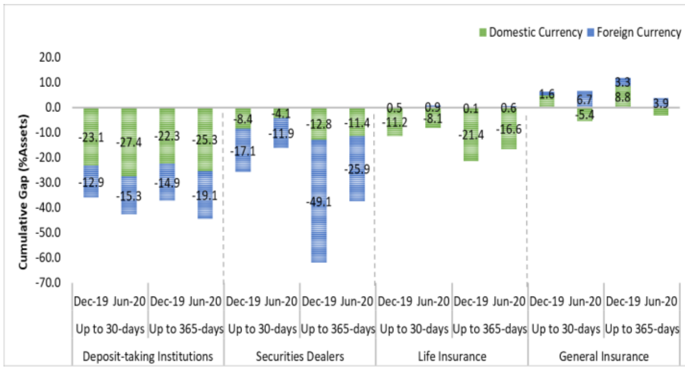
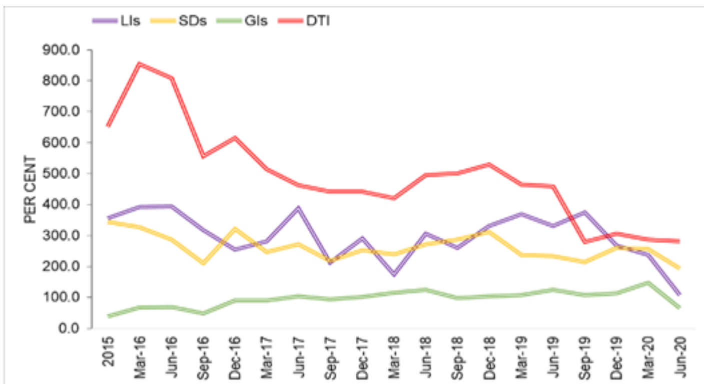


Chart 2.2 Liquidity Transformation[12]



Objective 3

Limit direct and indirect exposure concentrations

3.0 Credit to the main economic sectors exhibited general growth over the June 2020 quarter. However, personal loans declined by 1.4 per cent over the quarter, while loans to the distribution sector increased by 3.3 percent. Additionally, there was an increase in the DTIs' holdings of non-financial sector loans, measured as a share of total assets. In particular, non-financial corporate sector (NFCs) debt as a proportion of DTIs' asset base increased (Chart 3.0).

3.1 The household debt to disposable income ratio increased, which reflected a larger proportional decline in disposable income relative to the decline in household debt for the review period. In addition, households' net financial position to GDP ratio for households increased over the review quarter. As it relates to NFCs, the sector's ratio of debt to operating surplus increased while net financial position to GDP decreased relative to the previous quarter (see Chart 3.1). The continued low interest rate environment as well as moratoria has, however, left greater capacity for households and NFC sectors to service their debt obligations as seen in the reduction in the debt service ratio for the review period.

[12] (i) Liquidity Transformation = short term liabilities [≤ 30 days] / liquid assets. Liquid assets include high quality liquid assets, such as cash and equivalents, short-term investments and government securities with a 0% risk-weight.

Chart 3.0 Household and NFC Debt Ratios[15]

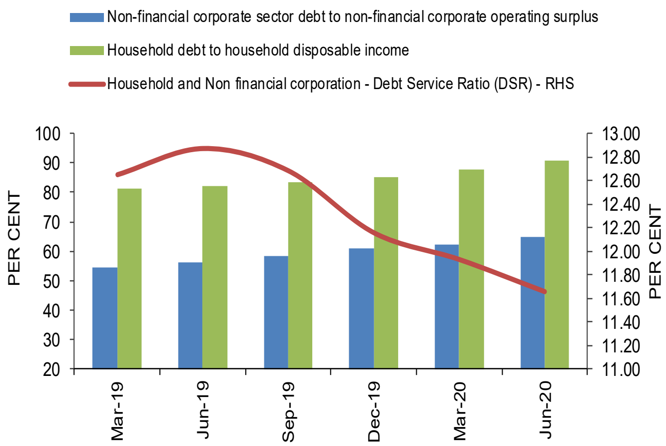
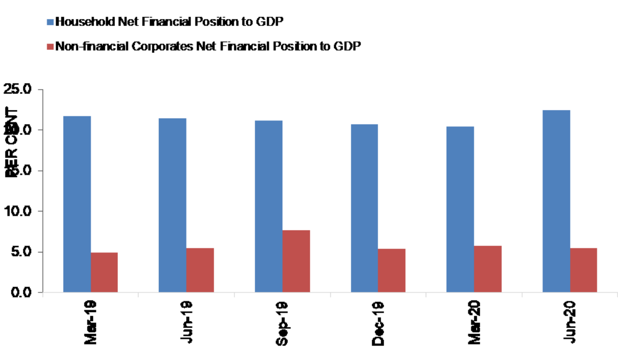


Chart 3.1 Household and NFC Net Financial Positions[16]



Objective 4

Limit the impact of interconnectedness and systemic importance

4.0 Regarding measures of systemic importance, the number of domestic systemically important institutions (SIFIs) remained at three for the June 2020 quarter (see Chart 4.0). In addition, total SIFI assets as a share of total assets remained broadly unchanged at 64.3 per cent at end-June 2020 from 64.9 per cent at the end of the previous quarter.[17,18]

4.1 As it relates to interconnectedness and potential for contagion, network analysis indicated that commercial banks and securities dealers were the central players in the financial network (see Chart 4.1). Securities dealers, building societies and commercial banks recorded a funding relationship with all other sectors in the system. However, the importance of building societies decreased for the review period relative to March 2020. The network metrics continued to indicate that the network remained dense and highly reciprocated.[20]

4.2 There were increases in interconnectivity and counterparty risk in June 2020, albeit with a notable

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[15] The DSR for the HH and the NFC is computed as follows: $DSR_{j,t} = \frac{i_{j,t}}{(1-(1+i_{j,t})^{-s_{j,t}})} * \frac{D_{j,t}}{Y_{j,t}}$ where $D_{j,t}$ denotes the total stock of debt, $Y_{j,t}$ denotes aggregate income available for debt service payments, $i_{t,j}$ denotes average interest rate on the existing stock of debt and $s_{j,t}$ the average remaining maturity across the stock of debt.

[16] (i) Net financial position = financial assets minus financial liabilities; (ii) financial assets for NFCs include: deposits and repo liabilities; (iii) financial liabilities for NFSCs include: NFC loans and non-exempt distributions; (iv) financial assets for households include: pension holdings, deposits, retail repos, life assurance and annuity contracts and policyholder funds on deposit; (v) financial liabilities for households include: consumer loans and mortgage loans.

[17] The D-SIB framework currently used by the Bank follows the methodology outlined in Brämer and Gischer (2012), which assesses the significance of banking groups based on four key categories: (1) size, (2) interconnectedness, (3) non-substitutability and (4) complexity. The score for banking group i for period j is computed as follows:

$$SCORE_{ij} = \frac{A_{ij}}{\sum_i^n A_{ij}} + \left(\frac{(LFC_{ij}+DFC_{ij})}{(\sum_i^n LFC_{ij}+\sum_i^n DFC_{ij})}\right) + \left(\frac{(LH_{ij}+LNFC_{ij}+LGG_{ij}+LCS_{ij})}{(\sum_i^n LH_{ij}+\sum_i^n LNFC_{ij}+\sum_i^n LGG_{ij}+\sum_i^n LCS_{ij})}\right) + \left(\frac{(TS_{ij}+IS_{ij})}{(\sum_i^n TS_{ij}+\sum_i^n IS_{ij})}\right)$$

where, A represents total resident assets, LFC represents loans to financial corporations, DFC represents deposits from financial corporations, LH represents loans to households, LNFC represents loans to non-financial corporations, LGG represents loans to the general government, LCS represents loans to community service and non-profit organizations, TS represents trading securities and IS represents investment securities.

[18] As a result of revised data, actual number of SIFIs for the June 2017 quarter was two, and revised total SIFI group assets as a share of the total assets for June 2017 is 49.5 per cent.

[20] Density of a network refers to the proportion of actual links from all possible links, while, eigenvector centrality is used to measure the importance of nodes, irrespective of the number of links it has in a network.

Chart 4.0 Total SIFI Group Assets to Total System Assets

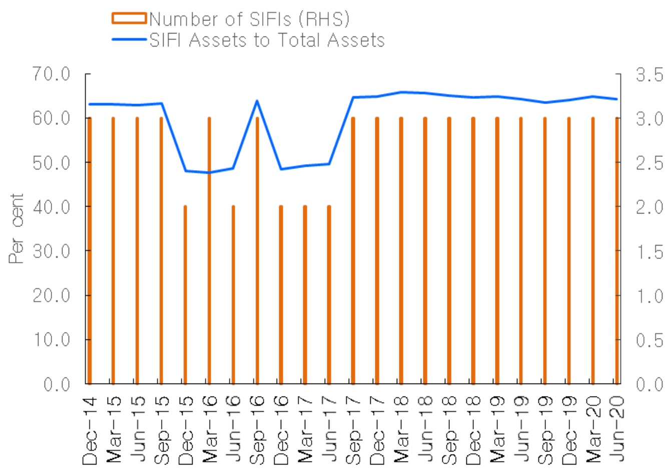
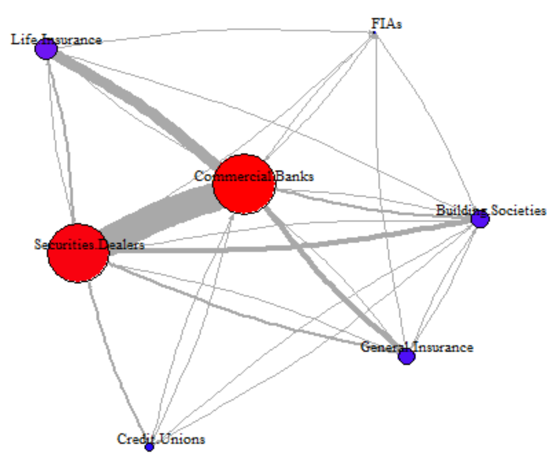


Chart 4.1 Network of gross credit exposures between financial sectors



reduction in the value of transactions. Reciprocation and density of the network continued to be high. The most central players of the funding network were commercial banks and securities dealers. Transactions among group affiliates remained a significant vulnerability to the financial network as well as funding relations with institutions outside of Jamaica. Notably, there was a deterioration in the systemic risk and fragility scores of the system for June 2020 relative to March 2020. Nevertheless, the speed of contagion, measured by the diameter, decreased slightly while there was a removal of two articulation points at end-June 2020.[22] Further, the COVID-19 pandemic seems to have had little or no impact on the payment network, with the exception of the removal of 2 articulation points.

Objective 5

Strengthen the resilience of the financial system

5.0 The composite indicators of macro-financial conditions deteriorated for the review quarter but continued to demonstrate the relative health of the banking system. Specifically, the macro-financial index (MaFI) increased by 8.0 points to 34.0 points at end-June 2020, but remains below the crisis threshold of 44.0 index points. This deterioration largely reflected deterioration in GDP and the Main JSE index (see Chart 5.0).

[22] Fragility refers to how quickly the failure of any one institution would trigger failures across the domestic interbank network while articulation points widentified in network signify vulnerabilities as their removal would result in a weakening of the financial system's funding flow.

Chart 5.0 Macro-Financial Index

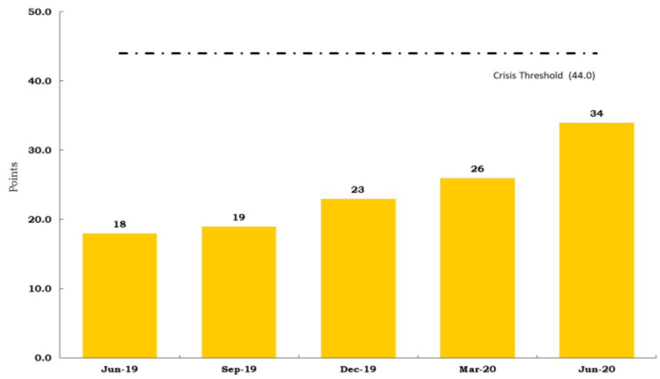


Table 5.2 Alternate Means of Payments (Proportion of Total)

	POS Credit + Debit	Cheque	Internet	RTGS	EFT
2019	6.8%	17.5%	7.8%	59.2%	7.5%
2020	6.9%	12.7%	10.0%	59.7%	9.9%

This table provides the main types of alternative means of payments. Proportions are calculated over the period March – July.

5.1 Furthermore, there was a slight decrease in the Aggregate Financial Stability Index (AFSI) in June 2020, due to a deterioration in the loan quality of banks as non-performing loans (NPLs) as a ratio of total loans increased and the probability for the risk of insolvency (Z score) decreased. This was partially offset by an increase in market capitalization as a share of GDP.[25]

COVID-19 Payment System Related Developments

5.2 Real Time Gross Settlement (RTGS) transfers continued to be the primary means of payment utilized in the payment system for the review period, (March 2020 to July 2020) accounting for 59.7 per cent of the value of transactions within the payment system, followed by cheque payments at 12.7 per cent (see Table 5.2). For the review period, internet transactions and EFTs, as a share of total transactions, were both higher by 2.3 percentage points, relative to the comparative period of the previous year. In contrast, cheque payments as a share of total transactions declined by 4.8 percentage points, relative to the previous corresponding period.[27] These indicators may be attributed to the respective Covid-19 restricted implemented, which would have given rise to the increased use of internet and electronic fund transfers and reflecting declines in cheque payment as result in the reducing person to person contact.

6.0 Outlook

6.1 There are significant uncertainties regarding the economic recovery from the impact of COVID-19. The spread of the virus has not yet been contained and has in fact accelerated in some of Jamaica's main trading partners.

6.2 Despite capital and liquidity buffers as well as a broad diversification in asset exposures, systemic vulnerabilities associated with the downturn and the uncertainty in economic recovery have emerged. Stagnant asset markets have softened incomes and

[25] The Z-score is a measure used to determine the risk of insolvency based on the interaction of an institution's leverage, profitability as well as the potential magnitude of return shocks. The Z-score is used to capture the likelihood of a bank's earnings in a given year becoming low enough to eliminate the bank's capital base and thus, the likelihood of the bank becoming insolvent.

[27] POS and RTGS activities remained unchanged with growths of 0.1 per cent and 0.5 per cent, respectively.

balance sheet performances across the financial system.

6.3 A prolonged down-turn of economic conditions will worsen business and labour market conditions and increase the credit risk exposures of financial entities.

6.4 Thus far capital levels have remained in excess of prudential minimums across the financial system while there has been a reversal in the draw-down of liquidity on securities dealers after March 2020.

6.4 BOJ stands ready to deploy facilities to help ensure access to liquidity and encourage the flow of credit to households and businesses. In addition, the supervisors will continue to undertake enhanced assessments and forecasts of the credit quality of asset exposures.