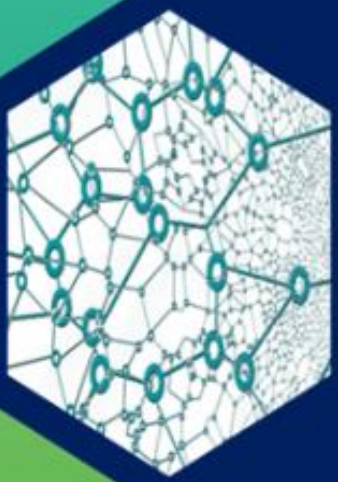
MITIGATE AND PREVENT EXCESSIVE CREDIT GROWTH AND LEVERAGE

MITIGATE AND PREVENT EXCESSIVE MATURITY MISMATCHES AND MARKET ILLIQUIDITY

LIMIT DIRECT AND INDIRECT EXPOSURE CONCENTRATIONS

LIMIT THE IMPACT OF INTERCONNECTED-NESS, SYSTEMIC IMPORTANCE AND MISALIGNED INCENTIVES



STRENGTHEN THE RESILIENCE OF THE FINANCIAL SYSTEM & INFRASTRUCTURE

BANK OF JAMAICA

Macroprudential Policy Report

Highlights

SEPTEMBER 2019 QUARTER

Contents

Preface.....1

Overview.....2

Objective 1: Mitigate and prevent excessive credit growth and leverage.....2

Objective 2: Mitigate and prevent excessive maturity mismatches and market illiquidity.....3

Objective 3: Limit direct and indirect exposure concentrations.....4

Objective 4: Limit the impact of interconnectedness and systemic importance.....5

Objective 5: Strengthen the resilience of the financial system.....6

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

For the September 2019 quarter, with the exception of securities dealers, the main financial sub-sectors recorded a slowdown in annual asset growth relative to annual growth for September 2017 and September 2018. However, financial soundness indicators of capital adequacy and profitability remained stable. These developments occurred against the background of continued accommodative monetary policy, low inflation but slower pace of GDP growth.

Consistent with the slowdown in asset growth for the quarter, there was a tapering of the annual growth in private sector credit expansion. Notwithstanding, there was a notable increase in the credit-to-GDP gap to 2.8 per cent, which is above the Bank of Jamaica's lower threshold of 2.5 per cent. However, credit metrics show that financial institutions do not show any over-leveraging or maturity mismatch during the review quarter.

Debt sustainability measures for the household sector deteriorated during the review quarter. More specifically, the net financial position to GDP and the debt to disposable income ratios worsened for households. However, non-financial corporates (NFCs) saw an improvement in their net financial position to GDP ratio.

Composite indicators of macro-financial conditions weakened marginally for the review period but continued to demonstrate a healthy banking system.

Objective 1

Mitigate and prevent excessive credit growth and leverage

1.0 Risks from excessive credit growth are assessed to be low. Despite rates of growth beyond measured GDP, inflation in asset prices have picked up marginally but financial entities have remained relatively well capitalized to absorb moderate losses in asset values.

1.1 The annual growth of total credit for September 2019 increased by 12.7 per cent, relative to annual growth of 12.8 per cent at end-June 2019 (see Chart 1.0). Total credit increased by 4.0 per cent for the review quarter, which reflected an acceleration of the pace of credit growth.[1] This growth resulted in additional financing of $40.5 billion in the system compared to the previous quarter. Accordingly, the total credit-to-GDP gap indicator grew to 2.8 per cent for the September 2019 quarter relative to 2.1 per cent at end-June 2019 (see Chart 1.1).

1.2 Regarding pressures on asset prices, residential real estate prices for the all Jamaica and St Catherine indices decreased for the September 2019 quarter. Specifically, the indices for the all Jamaica index and St. Catherine index decreased by 1.2 per cent, and 2.1 per cent respectively. Prices for Kingston & St. Andrew, however reflected an increase of 2.84 percent. Also, there were increases in annual growth for the all Jamaica and St. Catherine indices but a decrease for Kingston and St. Andrew. Overall, this outturn coincided with an annual increase in the housing-price-to-income ratio, of 0.49 percentage points, which resulted from a faster pace of growth in average house prices relative to income (see Chart 1.2).

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

Chart 1.0 Growth in Credit

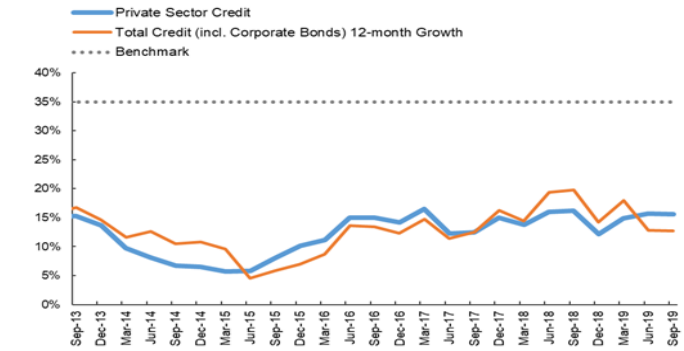


Chart 1.1 Evolution of Credit-to-GDP Gap Indicators

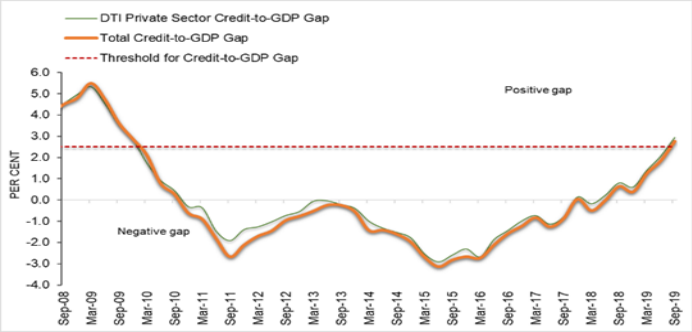
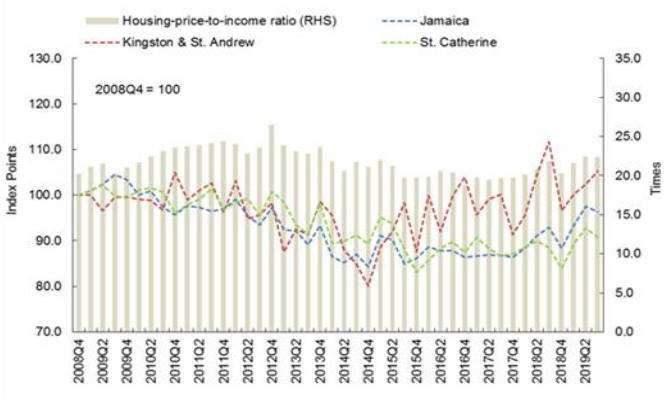


Chart 1.2 Adjusted Residential Real Estate Price Index[2]



Objective 2

Mitigate and prevent excessive maturity mismatches and market illiquidity

2.0 The balance sheet structure of financial entities showed improvements in maturity structure and liquidity coverage as reflected in maturity and liquidity transformation risk 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 review quarter, maturity transformation metrics for both the DTI and NDTFI sectors reflected general improvement relative to the previous quarter. The decrease in the maturity mismatch ratios for the deposit-taking institution, life insurance and SD sectors mainly resulted from a greater than proportional increase in long-term liabilities relative to long-term assets. However, for the GI sector the deterioration occurred as a result of a greater percentage increase in the individual sector's long-term assets relative to their long-term liabilities and equity (see Chart 2.0).[3]

2.2 The extent of coverage of short-term liabilities with liquid assets improved across all sectors except for life insurance. This performance of the life insurance sub-sector reflected a larger than proportional decline in liquid assets relative to short-term liabilities. Meanwhile, the outturn for the DTI, SD and general insurance sectors were mainly due to

[2] (i) The HPIR (housing-price-to-income) ratio is the average price of a housing unit (across all types of dwellings) per quarter relative to the per capita personal disposable income for households; (ii) RREPIs have been adjusted for inflation.

[3] Growth in long-term assets for DTIs, LIs and GIs grew by 1.3 per cent, 2.2 per cent and -3.7 per cent, respectively. Growth in long-term liabilities for DTIs, LIs and GIs amounted to 1.7 per cent, per cent and 15.2 per cent, respectively. SDs long-term assets and liquid assets grew by 0.9 per cent and 4.1 per cent, respectively. At the same time, SDs short-term liabilities and long-term liabilities grew by 3.7 per cent and -15.6 per cent, respectively.

growth in liquid assets, which exceeded the pace of growth in short-term liabilities (see Chart 2.1).[4]

Objective 3

Limit direct and indirect exposure concentrations

3.0 The continued decline in public sector debt and resulting crowding in continues to gradually transfer the risk exposure of financial institutions to the household and corporate sectors. As a result, households' debt sustainability measures showed a deterioration while non-financial corporates' (NFC) debt sustainability measures showed marginal improvements. Notably, debt sustainability measures remain below what pertains in other emerging market economies. Moreover, the low interest rate environment has left greater capacity for these sectors to service their debt.

3.1 Credit to the main economic sectors increased for the review quarter. Personal loans grew by 3.8 per cent while loans to the distribution sector increased by 4.6 per cent. In addition, there was an increase in household sector loans extended by DTIs as a share of DTIs' total assets. However, NFCs' debt relative to DTIs' asset base fell. Additionally, household debt to disposable income ratio increased, which reflected strong growth in mortgages extended by DTIs within the review period (see Chart 3.0).

Chart 2.0 Maturity Transformation[5]

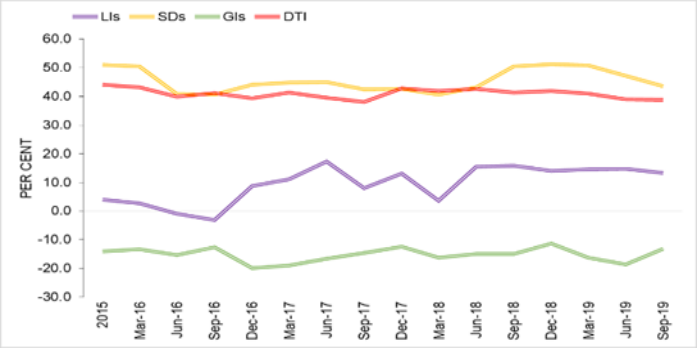
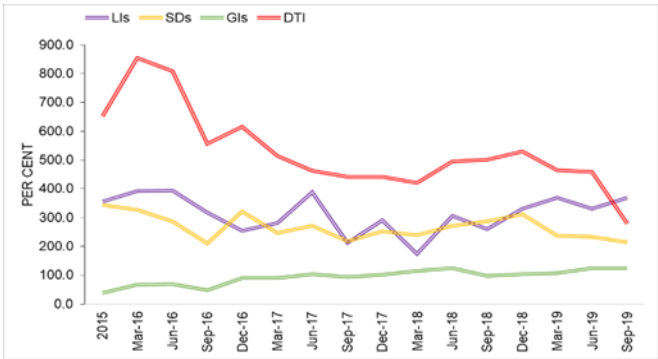


Chart 2.1 Liquidity Transformation[6]



3.2 In addition, households' net financial position to GDP ratio declined over the review quarter. With regard to NFCs, the ratio of debt to operating surplus decreased while the sector's net financial position to GDP increased, relative to the previous quarter (see Chart 3.1).

[4] Liquid assets for DTIs, LIs and GIs grew by 19.3 per cent, -2.9 per cent and 3.8 per cent, respectively. Short-term liabilities for DTIs, LIs and GIs grew by 4.9per cent, 8.1 per cent 6.8 per cent, respectively.

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

[6] (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.

Chart 3.0 Household and NFC Debt Ratios[7]

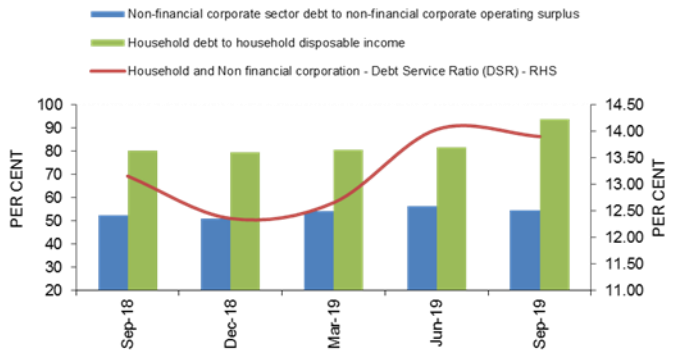
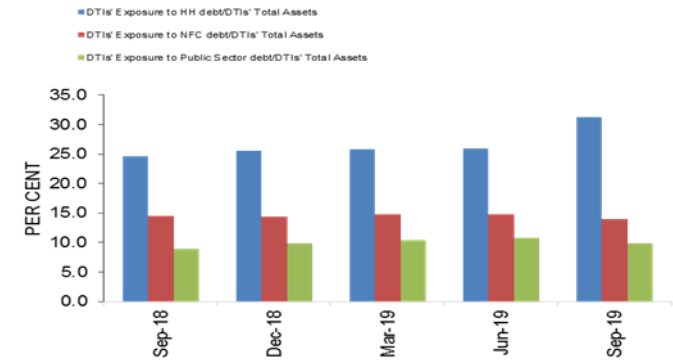


Chart 3.1 Household and NFC Net Financial Positions[8]

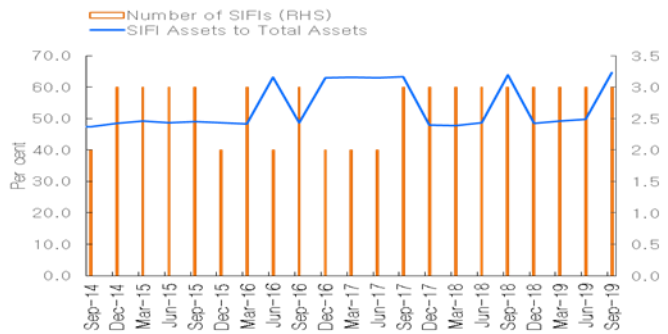


Objective 4

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 at end-September 2019 (Chart 4.0). Consequently, total SIFI assets as a share of total assets remained relatively unchanged at 63.4 per cent relative to the previous quarter.[9,10]

Chart 4.0 Total SIFI Group Assets to Total System Assets



4.1 As it relates to interconnectedness and potential for contagion, network analysis indicated that commercial banks and securities dealers were both equally the central players in the financial network (see Chart 4.1) Of note is that the

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

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.

[7] 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.

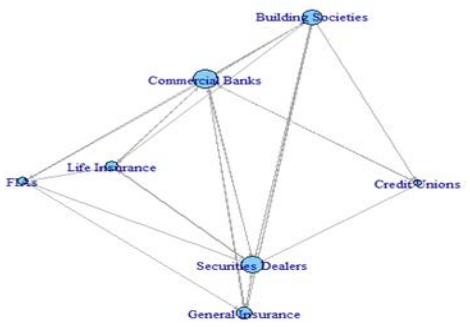
[8] (i) Net financial position = financial assets minus financial liabilities; (ii) financial assets for NFCs include: deposits and repo liabilities; (iii) financial liabilities for NFSCs include: NFC loans and non-exempt distributions; (iv) financial assets for households include: pension holdings,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

[9] 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:

[10] 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.

commercial banking and securities dealer sectors recorded funding relationships with all sectors in the system. Network measures continued to indicate that the network remained dense and highly reciprocated.[11]

Chart 4.1 Network of gross credit exposures between financial sectors



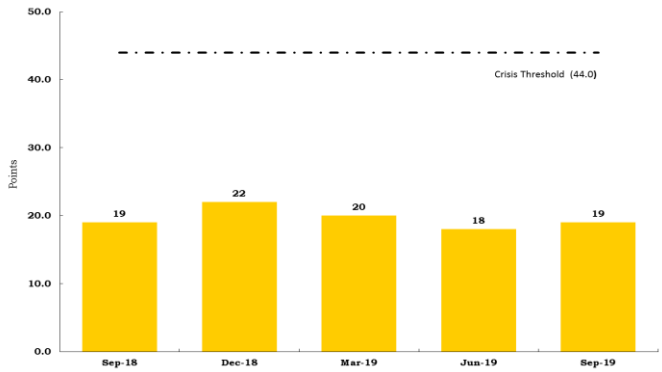
Objective 5

Strengthen the resilience of the financial system

5.0 The performance of composite indicators of macro-financial conditions deteriorated marginally for the review period but continued to demonstrate the relative health of the banking system. Specifically, the Macro-financial index (MaFi) increased by 1.0 index point to 19.0 points at end-September 2019 but was notably well below the crisis threshold of 44.0 index points. The marginal deterioration largely reflected an increase in exchange rate volatility (see Chart 5.0).

5.1 Furthermore, there was a slight decrease in the Aggregate Financial Stability Index (AFSI), which reflected slightly lower measures for the financial vulnerability, financial soundness and the global economic environment sub-indices.

Chart 5.0 Macro-Financial Index



[11] Density of a network refers to the proportion of actual links from all possible links, while, reciprocity in directed networks measures the probability that linkages are in both directions between a pair of financial institutions.