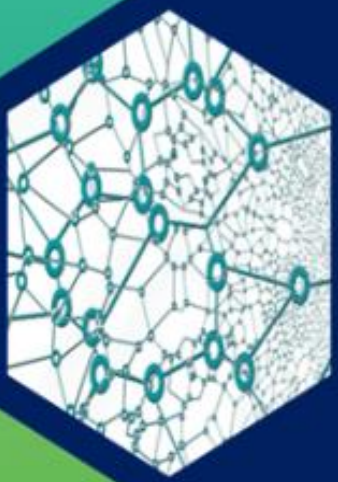
MITIGATE AND PREVENT EXCESSIVE CREDIT GROWTH AND LEVERAGE

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

JUNE 2019 QUARTER

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

During the June 2019 quarter, risks to the financial sector remained tempered within the context of a generally favourable domestic macroeconomic environment. Notwithstanding the continued low domestic interest rate environment, there was a slowdown in the growth of private sector credit during the review quarter.

Despite the slowdown in private sector credit, debt sustainability measures for both the household and corporate sectors deteriorated marginally during the review quarter. In addition, there was a notable increase in the credit-to-GDP gap to 2.1 per cent. Against this background, financial institutions have maintained their leverage levels and maturity profiles.

Deposit-taking institutions' (DTIs) risk exposures generally improved for the June 2019 quarter. Stress test results showed that DTIs remained largely robust to the contemplated financial shocks. In addition the resilience of non-deposit-taking financial institutions' sector (NDTFI) to the contemplated financial shocks were largely consistent with the previous quarter. Specifically, the securities dealers sector continued to display susceptibility to extreme interest rate shocks.

As it relates to interconnectedness, despite the interconnected nature assessments showed that the financial system was largely resilient to contagion risks.

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 Total credit increased by 2.0 per cent for the review quarter, which reflected a slowdown in the pace of credit growth.[1] This growth resulted in additional financing of $14.3 billion in the system compared to the previous quarter. This represented annual growth in total credit of 12.8 per cent at end-June 2019, relative to annual growth of 18.0 per cent at end-March 2019 (see Chart 1.0). Accordingly, the total credit-to-GDP gap indicator grew to 2.1 per cent for the June 2019 quarter relative to 1.9 per cent at end-March 2019 but remains below the signalling threshold, albeit marginally (see Chart 1.1).

1.2 Regarding pressures on asset prices, residential real estate prices increased for the June 2019 quarter. Specifically, the property prices indices for all Jamaica, Kingston & St. Andrew and St. Catherine increased by 4.5 per cent, 2.3 per cent and 3.9 per cent, respectively. Also, there were increases in annual growth for the all Jamaica and St. Catherine indices. Overall, this outturn coincided with an annual increase in the housing-price-to-income ratio of 1.6 percentage points, which resulted from a faster pace of growth in average house prices relative to income (see Chart 1.2). The trends in these indicators point to the need for continued close monitoring of this market.

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

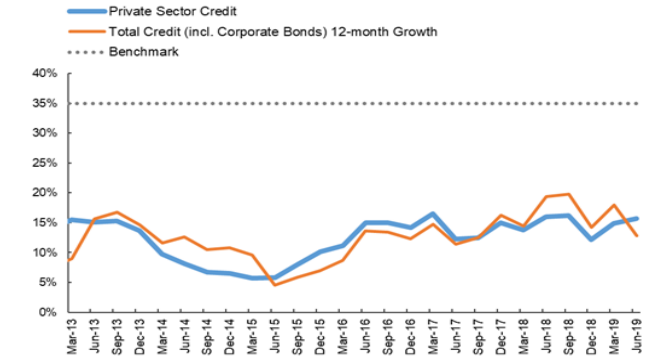


Chart 1.1 Evolution of Credit-to-GDP Gap Indicators

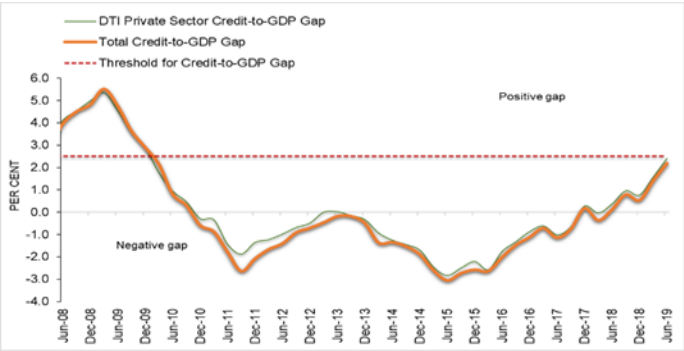
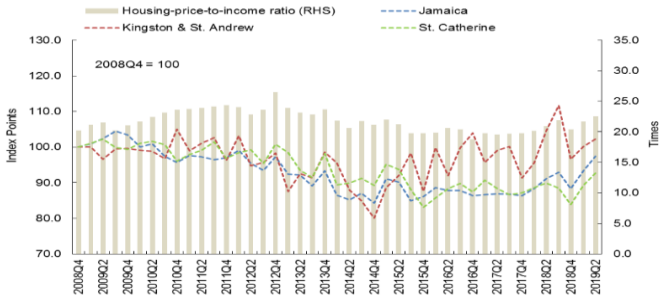


Chart 1.2 Adjusted Residential Real Estate Price Index[2]



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. Generally, the financial system demonstrated 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 DTI and insurance sectors mainly resulted from greater than proportional increase in long-term liabilities relative to long-term assets. However, for the securities dealers this reduction reflected a greater than proportional increase in equity relative to long-term assets (see Chart 2.0).[3]

2.2 The coverage of short-term liabilities with liquid assets improved across all sectors except for general insurance. The deterioration for the general insurance sub-sector reflected a larger than proportional growth in short-term liabilities relative to liquid assets. Meanwhile, the outturn for the DTI, securities dealers and life insurance sectors were mainly due to growth in liquid assets that exceeded

[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.

the pace of growth in short-term liabilities (see Chart 2.1).[4]

Chart 2.0 Maturity Transformation[5]

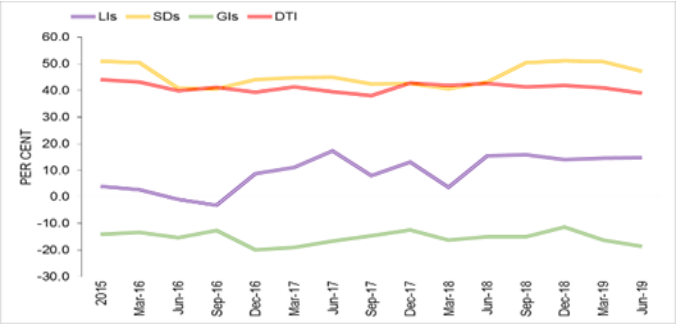
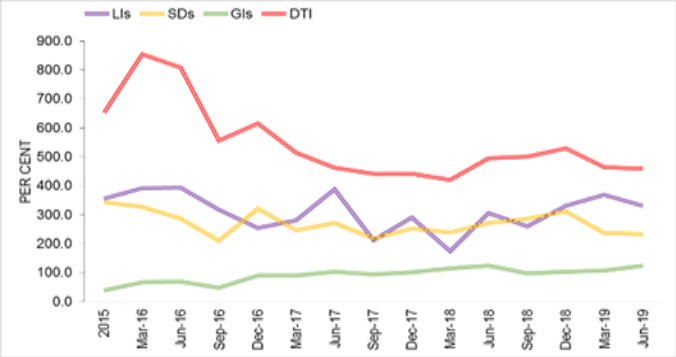


Chart 2.1 Liquidity Transformation[6]



Objective 3

Limit direct and indirect exposure concentrations

3.0 The fall in public sector debt and resulting crowding in is gradually shifting the risk exposure of financial institutions to the household and corporate sectors. Accordingly, households' and non-financial corporates' (NFC) debt sustainability measures showed marginal deterioration. Of note, debt sustainability measures are below what pertains in other emerging market economies. In addition, 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 4.0 per cent while loans to the distribution sector increased by 5.1 per cent. In addition, there was an increase in household sector loans extended by DTIs as a share of DTIs' total assets. Similarly, NFCs' debt relative to DTIs' asset base also increased. Moreover, household debt to disposable income increased marginally which reflected slower growth in disposable income (see Chart 3.0).

3.2 In addition, households' net financial position to GDP ratio declined marginally over the review quarter. With regard to NFCs, both the ratio of debt to operating surplus and 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]

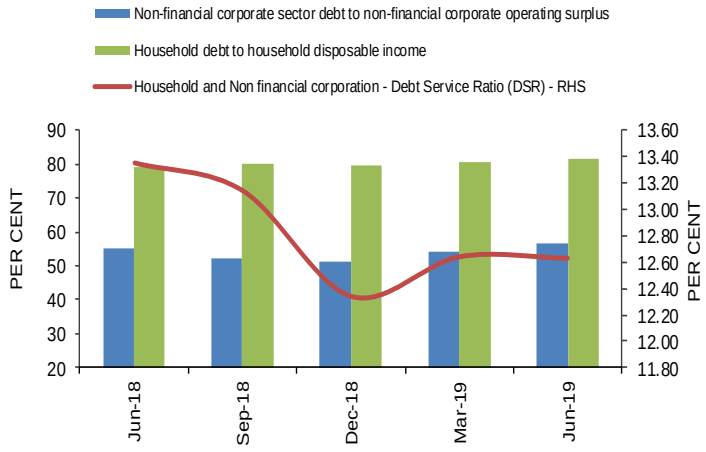
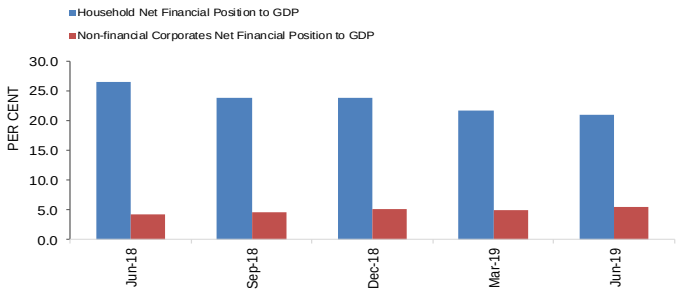


Chart 3.1 Household and NFC Net Financial Positions[8]

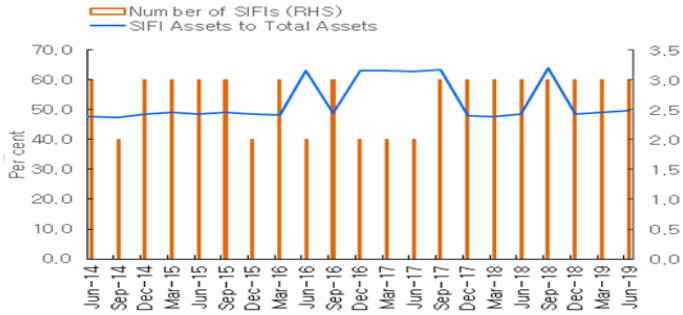


Objective 4

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-June 2019 (Chart 4.0). Consequently, total SIFI assets as a share of total assets remained relatively unchanged at 64.0 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

[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:

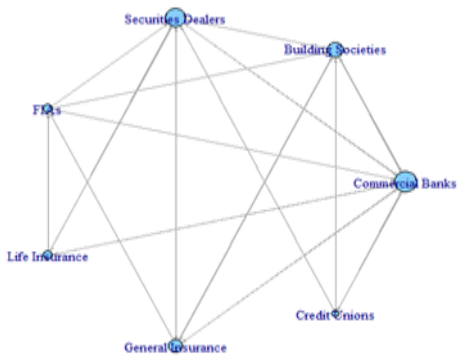
$$SCORE_{ij} = \frac{A_{ij}}{\sum_i^n A_{ij}} + \left(\frac{(LFC_{ij} + DFC_{ij})}{(\sum_i^n LFC_{ij} + \sum_i^n DFC_{ij})}\right) + \left(\frac{(LH_{ij} + LNFC_{ij} + LGG_{ij} + LCS_{ij})}{(\sum_i^n LH_{ij} + \sum_i^n LNFC_{ij} + \sum_i^n LG_{ij} + \sum_i^n LCS_{ij})}\right) + \left(\frac{(TS_{ij} +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

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.

[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



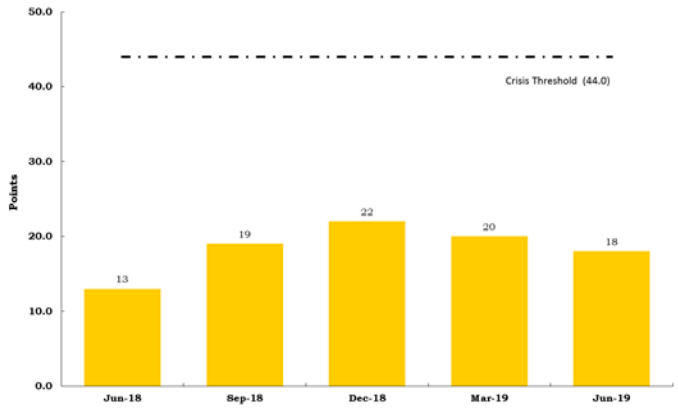
Objective 5

Strengthen the resilience of the financial system

5.0 The performance of composite indicators of macro-financial conditions showed improvements for the review period. The macro-financial index (MaFI) strengthened to 18.0 points at end-June 2019 relative to 20.0 points at end-March 2019, which largely reflected an acceleration in annual growth of private sector credit as well as decreases in exchange rate volatility (see Chart 5.0).

5.1 Furthermore, there was a slight increase in the Aggregate Financial Stability Index, which reflected improvements in financial vulnerability, financial development and the global economic environment sub-indices. The financial soundness sub-index weakened for the June 2019 quarter as there was a slight deterioration in the Z-score for the quarter.[12]

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.

[12] 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.