BANK OF JAMAICA

Macroprudential Policy Report

Highlights

MARCH 2021

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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

Macro-financial conditions, as indicated by composite indicators of financial and macroeconomic developments, remained stable during the March 2021 quarter. Financial institutions also continued to be well-capitalized and largely remained resilient to simulated financial shocks.

The risks associated with financial cycles during the review quarter did not increase materially during the review quarter. Indicators of household and corporate debt sustainability were also generally unchanged over the review quarter.

The results for the financial sector occurred in the context of the stable macroeconomic environment and the recovery of the Jamaican economy. There has also been a significant decline in the stock of loan moratoria provided by banks. Continued weakness in the debt profile of some borrowers, particularly in the tourism sector, during the March 2021 quarter however led deposit-taking institutions to maintain payment accommodations.

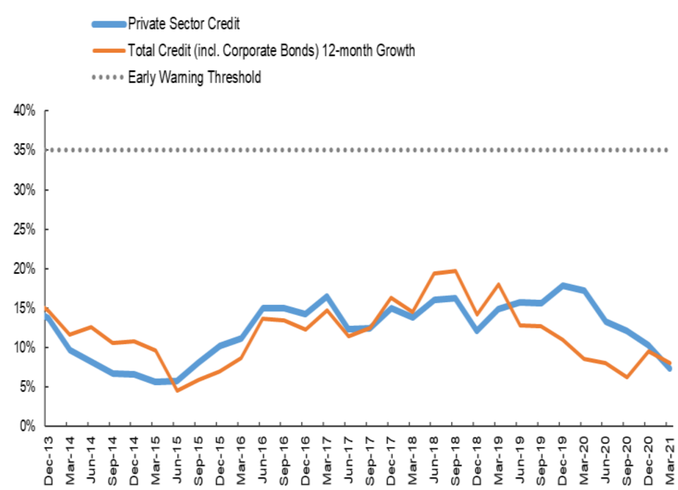
Going forward, the Jamaican economy is projected to improve further in the context of a strong recovery in the global economy and with appropriate fiscal and monetary policies to mitigate the impact of the COVID-19 pandemic. This outlook will allow deposit-taking institutions to release loan-loss reserves set aside during the pandemic as the debt repayment capacity of borrowers improve. Further, as the Jamaican economy recovers and as capital markets regain momentum, financial entities should begin to report increased profits.

The supervisors of the financial system will continue their enhanced monitoring of early warning indicators to ensure that the system remains sound.

Objective 1 – Mitigate and prevent excessive credit growth and leverage

1.0 The pace of credit growth continued to decelerate over the review quarter. Annual growth of total credit, including corporate bond issues, was 8.0 per cent at end-March 2021, which was slower than the annual growth of 9.5 per cent at end-December 2020 (see Chart 1.0). In particular, private sector credit increased by 7.3 per cent for the year-ended March 2021, slower than the 10.4 per cent growth recorded at December 2020.[1] This growth in credit resulted in the provision of additional financing of $22.0 billion to the private sector during the review quarter.

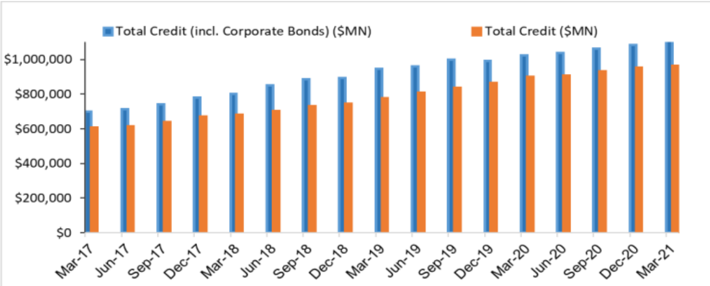
Chart 1.0 Annual Growth in Credit



Source: Bank of Jamaica

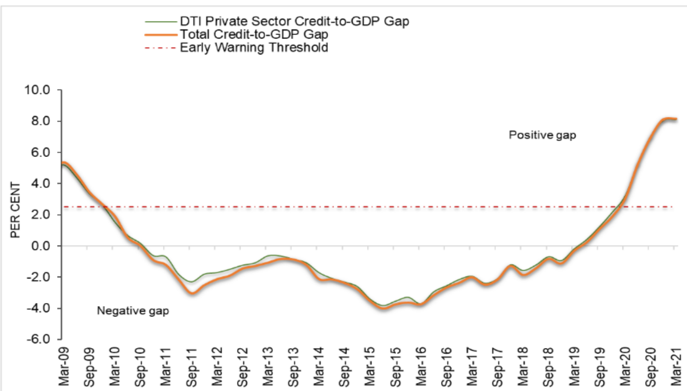
[1] Private Sector Credit is measured as DTIs' loans and advances to the private sector excluding credit to overseas residents and other financial institutions. Total DTI credit includes private sector credit plus credit issued to the public sector plus DTIs' holdings of corporate securities. .

Chart 1.1 DTI Credit plus Corporate Bond Issues via Exempt Distribution



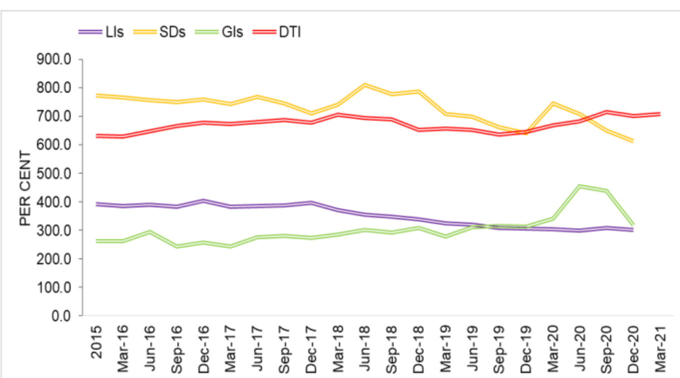
Source: Bank of Jamaica and Financial Services Commission

Chart 1.2 Evolution of Credit-to-GDP Gap Indicators



Source: Bank of Jamaica

Chart 1.3 Leverage – DTIs, SDs, LIs & GIs



Source: Bank of Jamaica and Financial Services Commission

1.1 For the first time in more than eight quarters, the credit-to-GDP gap indicator (which is a measure of leverage for the economy) remained relatively unchanged at 8.1 per cent at end-March 2021, when compared to end-December 2020 (see Chart 1.2).[2] This outturn reflected an estimated decline of 0.1 per cent in nominal GDP and an increase of 1.0 per cent in total credit for the March 2021 quarter, relative to the previous quarter. Although the indicator remained above the BOJ's threshold of 2.5 per cent, it appears to be settling below the Bank of International Settlements' (BIS) signal threshold of 10.0 per cent.

1.2 The leverage ratio for DTIs, which shows the extent that financial institutions use equity to fund asset expansion, increased by approximately 1.0 per cent for the March 2021 quarter, relative to a decline of 1.9 per cent the prior quarter (see Chart 1.3).[3] The increase in the leverage ratio reflected a faster pace of growth in total financial assets relative to the growth in equity.[4]

Objective 2– Mitigate and prevent excessive maturity mismatches and market illiquidity

2.0. The maturity transformation ratio for the DTI sub-sector (which captures the maturity mismatch between assets and liabilities) continued to increase for the March 2021 quarter (see Chart 2.0).[5] This increase mainly reflected a faster pace of growth in long-term assets, relative to long-term liabilities.

2 The credit-to-GDP gap indicator measures the deviation of credit-to-GDP relative to its long-term trend. It signals the extent of credit risk accumulation. Total credit used to calculate the credit-to-GDP gap is comprised of private sector credit plus corporate securities held by DTIs plus public sector credit. Nominal GDP is annualised by calculating a 4 quarter moving sum.

3 Leverage is calculated as (total financial assets/equity).

4 Leverage risk metric declined for Securities dealers, General and Life insurance companies by 5.8 per cent, 27.8 per cent and 2.53 per cent, respectively for the December 2020 quarter. Data on these subsectors for the March 2021 quarter were not available at the time of this Report.

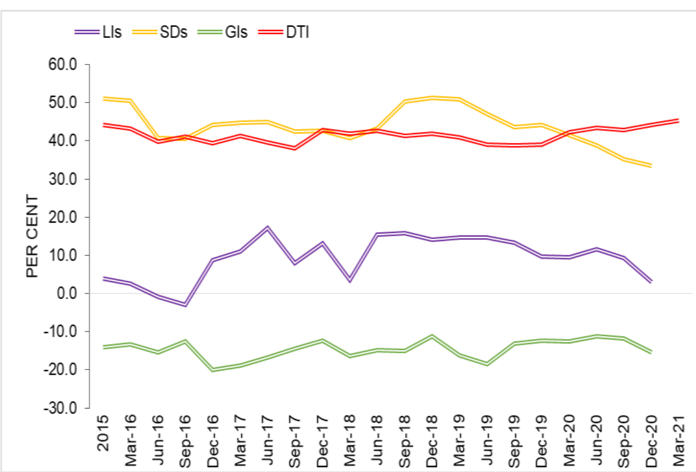
5 Maturity Transformation (Long term) = (long term assets - long term liabilities - nonredeemable equity) / total financial assets.

2.1. The liquidity transformation risk metric for DTIs as at March 2021 (which measures the extent of coverage of short-term liabilities with liquid assets) also increased relative to the previous quarter.[6] This increase was due to a decline of 7.8 per cent in liquid assets and an increase of 1.6 per cent in short-term liabilities (see Chart 2.1).

2.2. Data for securities dealers and insurance companies is only available for the December 2020 quarter. It shows that there were improvements in the long-term maturity transformation risk metrics for both sub-sectors during the quarter.

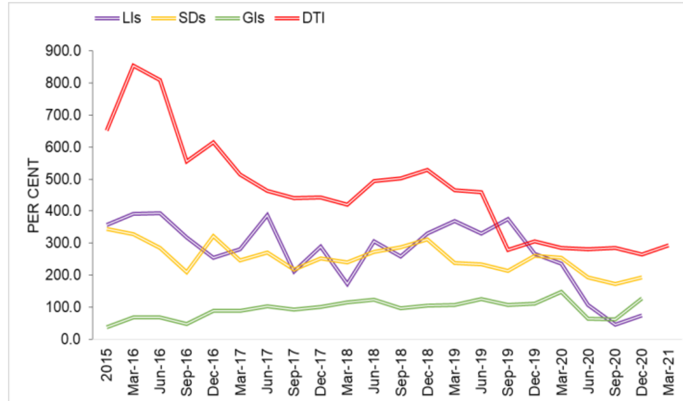
2.3 In relation to liquidity transformation risk metrics for securities dealers, life insurance and general insurance companies, the indicators increased in the December 2020 quarter (see Chart 2.1). These increases were primarily driven by greater than proportional increases in short-term liabilities relative to liquid assets.[7]

Chart 2.0 Maturity Transformation (Long term) for DTIs, SDs, Lis & GIs



Source: Bank of Jamaica and Financial Services Commission

Chart 2.1 Liquidity Transformation – DTIs, SDs, and LIs & GIs



Source: Bank of Jamaica

Objective 3 – Limit direct and indirect exposure concentrations & misaligned incentives

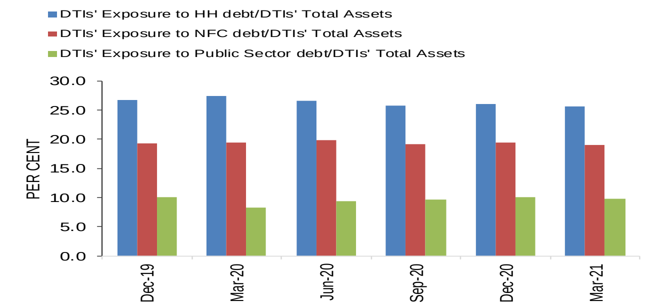
3.0. DTI loans to the main economic sectors increased for the March 2021 quarter. Personal loans, which continued to account for the largest share of the DTIs' loan portfolio, grew by 1.4 per cent for the review quarter (or 5.1 per cent for the year ended March 2021) (Chart 3.1). In this context of this low growth, DTIs' exposure to households, as measured by household debt as a share of total assets, declined by 0.4 percentage points for the review quarter.[8]

[6] 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.

[7] Liquid assets for securities dealers, general and life insurance companies declined by 6.1 per cent, 57.7 per cent, and 8.2 per cent, respectively. Meanwhile, short-term liabilities grew by 4.5 per cent and 46.1 per cent, respectively. The general insurance sector reflected a decline in short-term liabilities of 11.9 per cent for the review period.

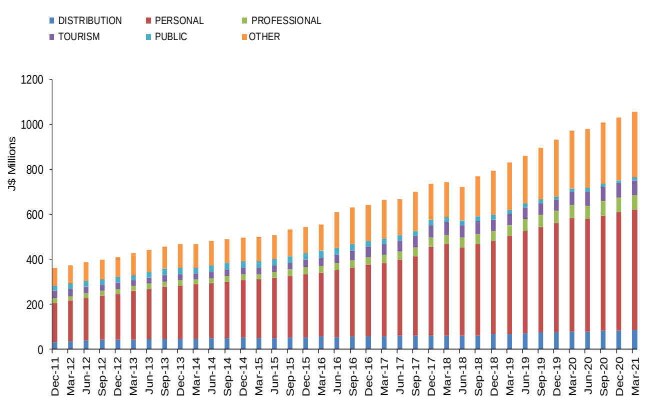
[8] Increase in assets were primarily due to a increase in investment holdings.

Chart 3.0 DTI Exposure to Public, Household and NFC Debt



Source: Bank of Jamaica

Chart 3.1 Loan Concentration- Selected Industries



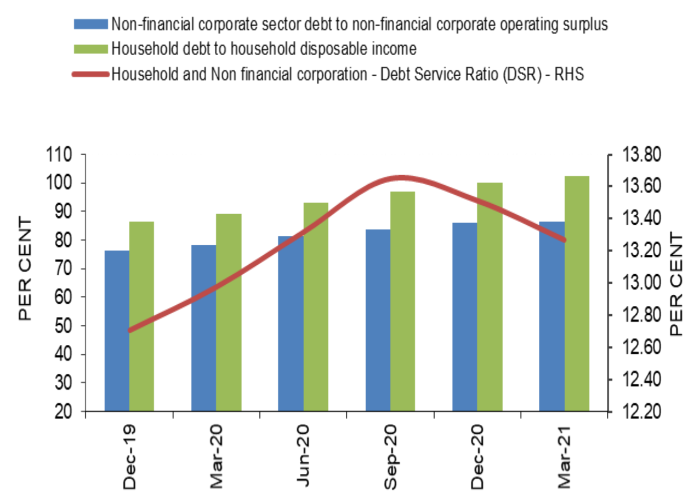
Source: Bank of Jamaica

3.1. Debt sustainability measures for households' and non-financial corporates (NFC) continued to show mixed results over the review period. In particular, household debt to disposable income increased marginally to 102.5 per cent at end March 2021, relative to 100.0 per cent at end- December 2020 (see Chart 3.2).[9] In contrast, households' net financial position relative to GDP increased for the quarter. This was due to growth in deposits and retail repos.[10] As it relates to NFCs, the sector's ratio of debt to operating surplus increased for the March 2021 quarter, which was primarily due to an increase in lending to the corporate sector by the financial system. However, NFCs' net financial position to GDP increased relative to the previous quarter (see Chart 3.2 & Chart 3.3). This increase was mainly due to an increase in financial assets for the review quarter.

3.2.

3.3. The low interest rate environment continued to offer greater debt repayment capacity for households and NFC sectors as indicated by the continued reduction in the debt service ratio for the review period.[11] Specifically, the debt service ratio declined by 0.2 percentage point as at March 2021. Furthermore, given the continued recovery of the economy, there was a significant decline in the stock of loan moratoria provided by banks, particularly in the agriculture and manufacturing sectors as well as for households.

Chart 3.2 Household and NFC Debt Ratios[12]



Source: Bank of Jamaica and Financial Services Commission

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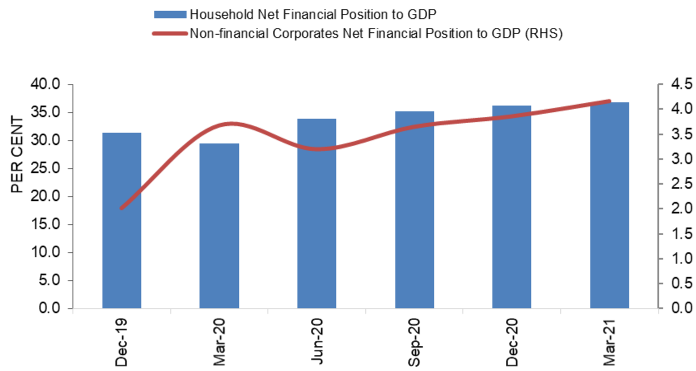
[9] Disposable income is calculated as follows; gross personal income minus taxes.
10 Net financial position to GDP is equal to (household financial assets minus household financial liabilities)/ nominal GDP.

[12] Household debt is measured as household loans extended by DTIs and NHT loans. Household disposable income is measured as compensation of employees (Domestic and R.O.W. (net)) minus (PAYE and Other contributions). 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.

Chart 3.3 Household and NFC Net Financial Positions[13]



Source: Bank of Jamaica

3.4. DTIs' foreign currency investment holdings as a proportion of total investments increased from 30.4 per cent at end-2020 to approximately 32.0 per cent as at end-March 2021. The ratio of DTIs' foreign currency deposits to total deposits remained relatively unchanged at 38.5 per cent as at end-March 2021, when compared with the previous quarter (see Chart 3.4).

3.5. DTIs' net open short position to capital (NOP) was 23.9 per cent at end-March 2021 which was broadly unchanged relative to a short position of 26.0 per cent at end-2020. The NOP fluctuated within the prescribed range of +15%/-25% per cent established by the Bank of Jamaica (see Chart 3.5).

3.6. The data for securities dealers is only available for the December 2020 quarter. It shows that the sector's foreign currency investment holdings as a share of total investments also remained relatively unchanged at 55.9 per cent at end-2020 compared with the ratio at end-September 2020.

3.7. Securities dealers' net open long position to capital showed an improvement in FX risk exposure for the December 2020 quarter. The long NOP for the sector fell to 7.8 per cent for the quarter from to 46.9 per cent at end-September 2020. This reduction was mainly attributable to a reversal of significant holdings by one entity.

Chart 3.4 Dollarization ratios for DTIs and securities dealers[14,15]

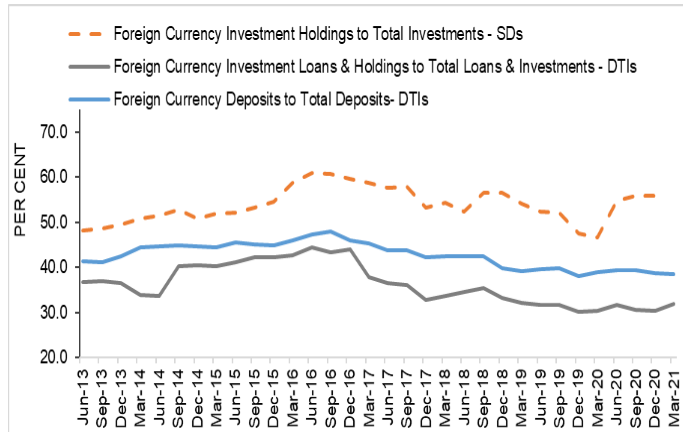
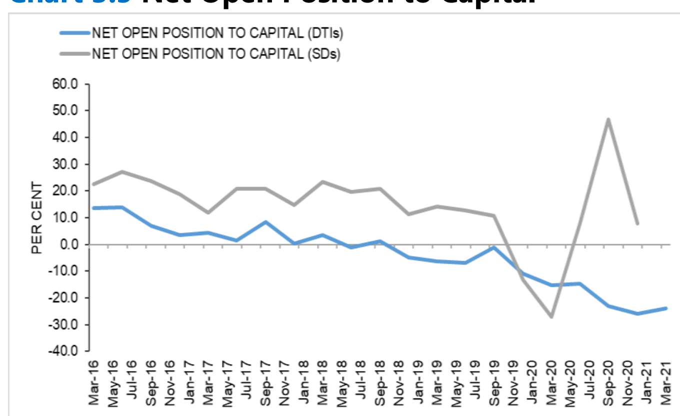


Chart 3.5 Net Open Position to Capital



Source: Bank of Jamaica

[13] (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.

[15] DTI data excludes information on foreign currency loans for the buildings societies sector.

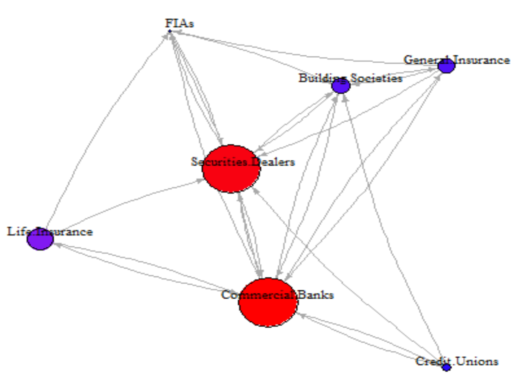
Objective 4 –Limit the impact of interconnectedness, systemic importance

4.1. Total SIFI groups' assets as a share of total assets decreased marginally to 61.4 per cent at end-December 2020 from 63.1 per cent at the end of the previous quarter. Commercial banks and securities dealers continued to be the central players in the network (see Chart 4.0). The network metrics continued to indicate that the network remained dense and reciprocated.

4.2. Network analysis that focused on DTIs' and securities dealers' funding relationships with other financial institutions showed that there was a slight increase in the value of exposures in December 2020 relative to September 2020 see (Chart 4.1). Furthermore, there was a significant increase in the degree of interconnectedness in the system during December 2020.

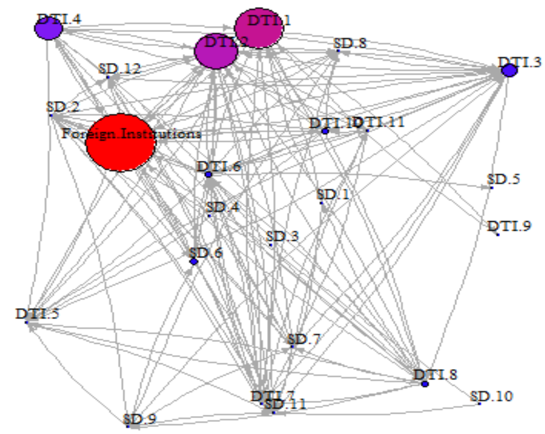
4.3. At end-December 2020, the contribution of foreign institutions to the domestic funding network (domestic DTIs and securities dealers) increased by approximately 11.0 per cent to $156.9 billion. This uptick could be attributed to a slow return to normalcy of external financial markets after the initial pressure on global financial systems due to the pandemic.

Chart 4.0 Network of gross credit exposures between financial sectors



Source: Bank of Jamaica

Chart 4.1 Network of gross credit exposures between DTIs and securities dealers including foreign institutions



Source: Bank of Jamaica

Objective 5 –Strengthen the resilience of the financial system

5.0 The financial system maintained the ability to absorb shocks as capital positions across system remained well above prudential minimum requirements. The capital adequacy ratio for DTIs remained unchanged at 14.3 per cent at end-March 2021, relative to end-2020 (see Table 5). The average CAR for core securities dealers as at December 2020 was 22.3 per cent. For the same period, the general insurance industry had a weighted average Minimum Capital Test ratio of 334.9 per cent, which exceeded the 250.0 per cent regulatory minimum. The life insurance industry had a weighted average Minimum Continuing Capital Surplus Requirement of 233.4 per cent at end-2020, which was also above the regulatory benchmark of 150.0 per cent.

5.1 However, there was a decline in financial institutions' earnings and profitability during the March 2021 quarter due to the contraction in the economy in the context of the COVID-19 pandemic. DTIs and securities dealers return on assets (ROA) for the March 2021 quarter decreased to 0.4 per cent and 0.6 per cent, respectively, relative to 0.6 per cent and 0.7 per cent for the December 2020 quarter.

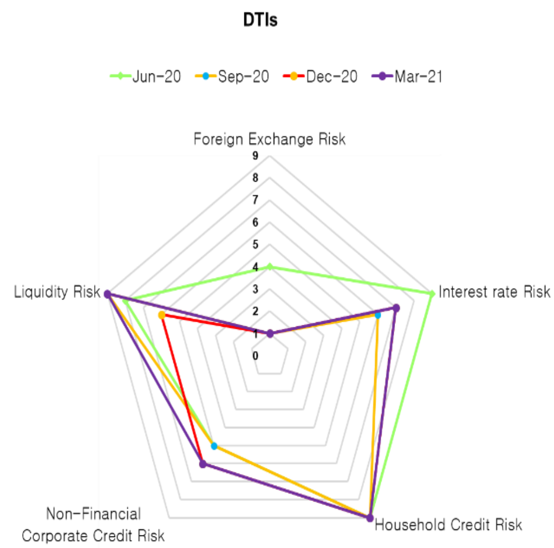
Table 5.0 Select Financial Soundness Indicators

	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21
Asset to GDP (%)						
DTI	85.74	87.38	92.89	100.62	102.88	106.09
SDs	28.74	27.89	30.82	33.48	35.20	35.90
LIs	16.29	16.54	17.70	18.07	18.63	n/a
GIs	4.02	4.13	4.82	4.75	4.67	n/a
Capital Adequacy (%)						
DTI (CAR)	14.34	14.19	14.16	14.23	14.31	14.33
SDs (CAR)	21.40	18.60	21.17	22.37	22.31	n/a
LIs (MCSSR)	208.04	225.59	225.59	225.59	225.59	n/a
GIs (MCT)	283.16	250.83	223.09	223.09	223.09	n/a
ROA (%)						
DTI	0.61	0.26	0.20	0.27	0.56	0.36
SDs	0.52	(0.11)	0.23	0.91	0.74	0.63
LIs	2.38	1.51	3.06	4.74	3.43	n/a
GIs	0.68	0.00	0.48	0.63	0.65	n/a
Liquidity (%)						
DTIs (liquid assets to short term liabilities)	27.60	29.31	28.72	28.14	30.54	28.56
SDs (liquid assets to total assets)	16.81	16.77	16.20	15.59	14.63	n/a
LIs (liquid assets to total liabilities)	27.04	28.53	25.75	23.17	20.85	n/a
GIs (liquid assets to total liabilities)	67.46	66.08	66.07	64.68	63.86	n/a

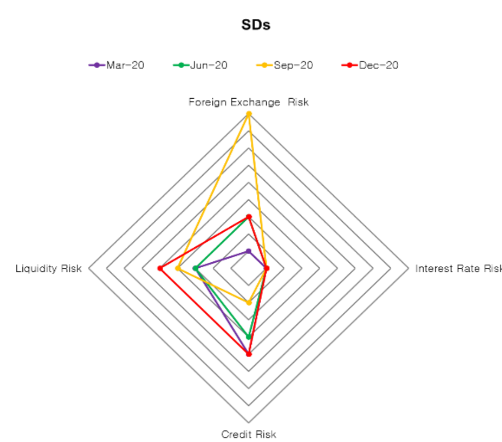
Source: Bank of Jamaica and Financial Services Commission

5.2 The cobweb of financial exposures for DTIs showed mixed results for the March 2021 quarter (see Chart 5.0). DTI's vulnerability to liquidity risk increased marginally[16]—but their exposure to household credit, exchange rate, interest rate and non-financial corporate credit risks remained unchanged, relative to the December 2020 quarter.

Chart 5.0 Evolution of risk exposure indicators



Risk exposure indicators:
- Credit Risk - NPLs/Loans (DTIs); NPLs (net)/ Capital
- Interest Rate Risk - Cumulative maturity gap < 30 days, < 90 days, < 360 days/Assets, DVBP/Capital
- Foreign Exchange Risk - NOP/Capital, FX liabilities/Total liabilities
- Liquidity Risk – Liquid assets/total assets, liquid assets to short-term liabilities

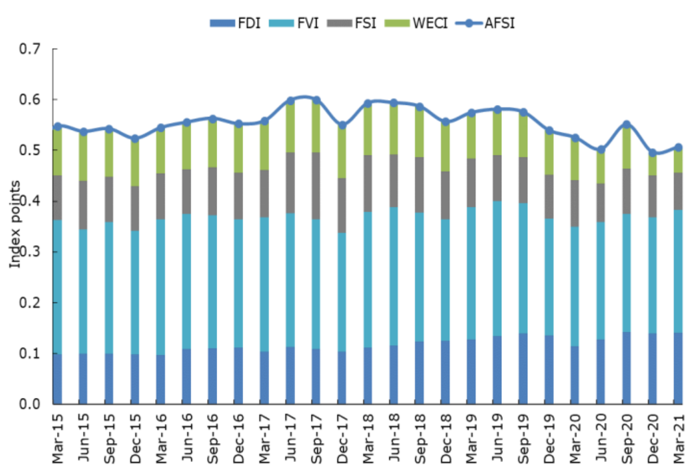


Risk exposure indicators:
- Credit Risk - NPLs/Loans (DTIs); NPLs (net)/ Capital
- Interest Rate Risk - Cumulative maturity gap < 30 days, < 90 days, < 360 days/Assets, DVBP/Capital
- Foreign Exchange Risk - NOP/Capital, FX liabilities/Total liabilities
- Liquidity Risk – Liquid assets/total assets, liquid assets to short-term liabilities

[16] Liquid assets declined (on a quarter-on-quarter basis - Dececember 2020 to March 2021) by 8%, while total assets increased by 3% and short term liabilities declined by 2%.

5.3 The data for securities dealers and insurance companies is only available up to the December 2020 quarter. In relation to credit and liquidity risks there was an increase in securities dealers' non-performing loans (net of provisions) to capital ratio while their liquid assets fell.[17] However, in the context of the aforementioned decline in their long NOP, securities dealers' exposure to foreign exchange risk decreased for the review quarter. The sector's exposure to interest rate risk remained unchanged.

Chart 5.1 Aggregate Financial Stability Index[18]



Source: Bank of Jamaica

5.4 As measured by the Aggregate Financial Stability Index (AFSI), macro-financial conditions improved during the March 2021 quarter. The AFSI increased to 0.51 at end-March 2021 from 0.50 at end-December 2020 (see Chart 5.1). This improvement was mainly attributable to the strengthening of the Financial Development, Financial Vulnerability and the World Economic Climate sub-indices. The outturn in the Financial Development sub-index was due to increased market capitalization to GDP.

5.5 Stress test results for the DTI sector showed that the institutions were generally robust to hypothetical shocks for the March 2021 quarter. In relation to the performance of securities dealers and insurance companies, the stress test results showed that this sector at end December 2020, with the exception of hypothetical interest rate shocks, were also general robust to hypothetical shocks.

5.7 Breakpoint analysis of the stress test scenarios showed that it would take an increase in interest rates of 1 200 bps/ 200 bps & 300 bps/ 30 bps on domestic and foreign interest rate sensitive assets and liabilities, respectively, for the first DTI to breach the 10.0 per cent prudential minimum at end-March 2021. In relation to liquidity risk, it would take a 40.0 per cent and 30.0 per cent reduction in deposits and repo liabilities, respectively, for the first DTI and securities dealer to breach the statutory minimum. The credit risk assessment at end-March 2021 showed that an increase in non-performing loans of 163.0 per cent would be necessary for the first DTI to breach the statutory benchmark.

Outlook

6.0 Economic recovery over the near term and the continued resilience of the domestic financial system depends on the course of the COVID-19 pandemic and the measures that will be deployed to address it.

6.1 The improved outlook for the domestic economy for 2021 should allow banks to release loan-loss reserves that was set aside at the onset of the pandemic. Additionally, if the capital markets continue to regain momentum, financial entities will begin to record increased profits over the near-term.

[17] This decline in securities dealers' liquid assets was due to reduction in these insitutions' primary dealer account held at the BOJ.

[18] The Aggregate Financial Stability Index is computed as a weighted average of normalized balance sheet and macroeconomic partial indicators, capturing financial development (FDI), financial vulnerability (FVI), and financial soundness (FSI).