MITIGATE AND PREVENT EXCESSIVE CREDIT GROWTH AND LEVERAGE

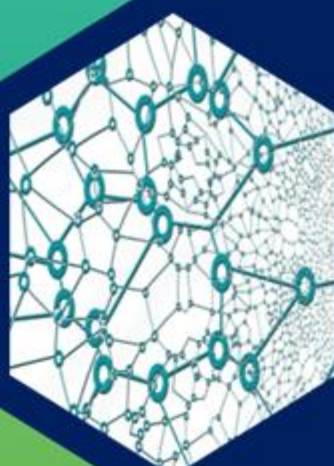
BANK OF JAMAICA

MITIGATE AND PREVENT EXCESSIVE MATURITY MISMATCHES AND MARKET ILLIQUIDITY

LIMIT DIRECT AND INDIRECT EXPOSURE CONCENTRATIONS

Macroprudential Policy Report

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



STRENGTHEN THE RESILIENCE OF THE FINANCIAL SYSTEM & INFRASTRUCTURE

June 2023

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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 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

In a context of overall improvement in domestic macroeconomic conditions, risks to financial system stability remained generally stable. This was largely reflected in moderate improvements in composite indices of financial conditions. Systemic risks associated with financial cycles and the system's exposure to other financial actors, as well as to selected sectors of the real economy, also continued to be moderate. Additionally, data up to end-March 2023 indicated that financial institutions continued to be adequately capitalized, liquid and profitable.

Several positive domestic and external macroeconomic developments supported the stability in the financial system for the March 2023 quarter. The Jamaican economy grew by 4.2 per cent for the quarter and reflected growth in most economic sectors. Furthermore, the annual point-to-point inflation rate for Jamaica decelerated to 6.2 per cent at end-March 2023, which was below the outturn of 9.4 per cent recorded at end-2022. Likewise, in the United States, inflation trended downwards to 5.0 per cent at March 2023, relative to 6.5 per cent at end-2022. Concurrently, during the quarter, Bank of Jamaica maintained its decision to hold its policy interest rate at 7.0 per cent while the Federal Reserve of the United States (FED) slowed its pace of interest rate increase.

In a context where inflation began to recede in late 2022, real interest rates for both Jamaica and for several advanced economies have begun to trend upwards and there remains a risk that more policy tightening may be required to assure a permanent return of inflation to policy targets. Past policy rate increases in the US has already begun to adversely affect selected sectors of that economy. If the Fed renews its monetary tightening policy stance, this could lead to the US economy falling faster into a recession.

In this regard, stress tests were conducted to ascertain the impact on balance sheets of domestic financial institutions of further increases in bond yields as well as deteriorating loan quality in the DTI sector resulting from a potential recession in the US.

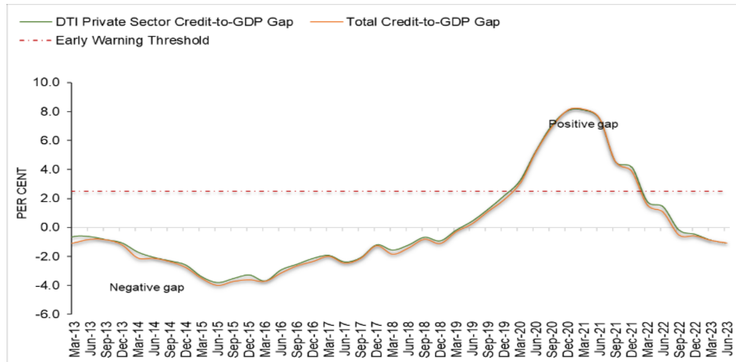
The assessments show that the DTI and SD sectors are resilient to the risks associated with the contemplated interest rate and credit risk shocks. However, there remains instances of vulnerability, particularly to further increases in interest rates, which would need to be remedied by additional capital injections.

Objective 1 – Mitigate and prevent excessive credit growth and leverage

1.1 **There was a further reduction in credit risks related to the trade cycle in Jamaica during the March 2023 quarter**. The credit-to-GDP gap fell to -0.9 per cent at end-March 2023, relative to -0.4 per cent at end-December 2022 (see **Chart 1.0**) and is projected to fall further at end-June 2023.[1,2] The credit-to-GDP gap remained below the Bank of International Settlements' (BIS) upper threshold of 10.0 per cent and the BOJ early warning threshold of 2.5 per cent for trade-cycle-related credit risks.

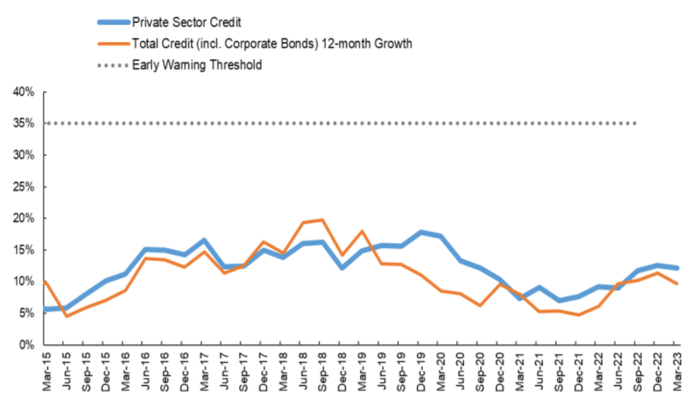
1.2 **The moderation in the credit-to-GDP gap reflected a** faster pace of growth in credit compared to GDP. Of note, total credit, which includes corporate bond issues and public sector credit, grew by 9.7 per cent for the year ended March 2023, relative to growth of 11.3 per cent for the year ended- 2022 (see **Chart 1.0**). More specifically, private sector credit grew at annual rate of by 12.2 per cent for the year ended- March 2023, which was slower than the 12.6 per cent growth recorded for 2022 (see **Chart 1.1**).[3] At the same time, nominal GDP grew by 2.4 per cent for the March 2023 quarter relative to 3.5 per cent for the December 2022 quarter.

Chart 1.0 Evolution of credit-to-GDP gap indicators



Source: Bank of Jamaica

Chart 1.1 Annual growth in credit



Source: Bank of Jamaica

[1] The credit-to-GDP gap indicator measures the deviation of credit-to-GDP from its long-term trend. It is a systemic risk indicator associated with financial cycles which 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 annualized by calculating a 4-quarter moving sum. The trend in credit/GDP is estimated using the Hodrick Prescott (HP) filter data smoothing econometric technique.

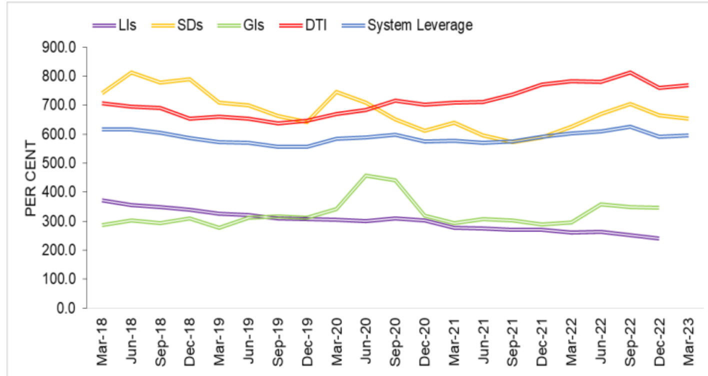
[2] The credit to GDP gap is projected to fall by 0.2 percentage points to -1.1 per cent at end June 2023. This estimate is based on estimated growth (Q-t-Q) in credit and nominal GDP for the June 2023 quarter of 2.0 per cent and 1.8 per cent, respectively.

[3] 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 bond issues via exempt distribution.

1.3 **The trend in the leverage ratio for the financial sector continued to be generally stable.**[4] The leverage ratio for the system increased by 3.6 percentage points to 595.2 per cent for the quarter ended March 2023, which reflected that the financial system increased its use of debt to fund asset expansion[5]. The marginal deterioration in the leverage metric reflected a faster pace of growth in total financial assets, relative to equity (see **Chart 1.2**).[6]

1.4 Notwithstanding the increase in DTIs' leverage, the primary ratios for all DTIs and securities dealers at end-March 2023 remained above the regulatory requirement of 6.0 per cent, indicating the absence of overleverage, with the lowest ratio being 7.7 per cent.[7] Similarly, at end-March 2023, the primary ratio for the top 10 securities dealers was above the 6.0 per cent benchmark. The ratio for the sector totalled 13.9 per cent and represented an improvement relative to 13.6 per cent at end-2022.

Chart 1.2 Leverage – DTIs, securities dealers, life and general insurance companies



Source: Bank of Jamaica and Financial Services Commission

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

2.1 For the March 2023 quarter, the maturity transformation risk metric for the financial sector grew (deteriorated) by 0.5 percentage points to 34.1 per cent, relative to end 2022. The marginal deterioration in the maturity mismatch ratio was evident for DTIs and securities dealers, reflecting a faster pace of increase in long-term assets relative to long-term liabilities and equity. [8] Specifically, long-term assets increased by 1.5 per cent, while long-term liabilities and equity increased by 0.1 per cent.

[4] Leverage is calculated as total financial assets/equity. Growth in the ratio reflects an increase in leverage.

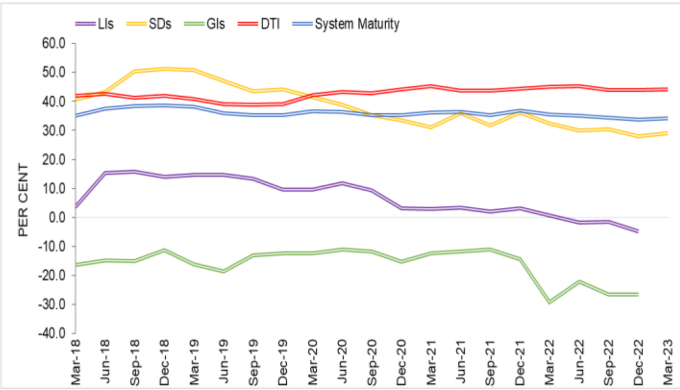
[5] Leverage calculation utilized data at end March 2023 for DTIs and SDs, while for Lis and GIs the metric used data at end December 2022.

[6] At end March 2023 for the financial system, total financial assets grew by 1.4 per cent relative to an increase of 0.8 per cent in equity when compared to end 2022.

[7] The Primary ratio is a capital adequacy measure. It is measured as Tier 1 capital as a share of assets, with a benchmark of 6%.

[8] For the March 2023 quarter, the performance in the maturity transformation ratio for the SD sector was driven by JMMB. The entity recorded a 12 per cent increase in long-term liabilities and a 9.0 per cent increase in long-term assets.

Chart 2.0 Maturity transformation (long term) DTIs, securities dealers, life and general insurance companies



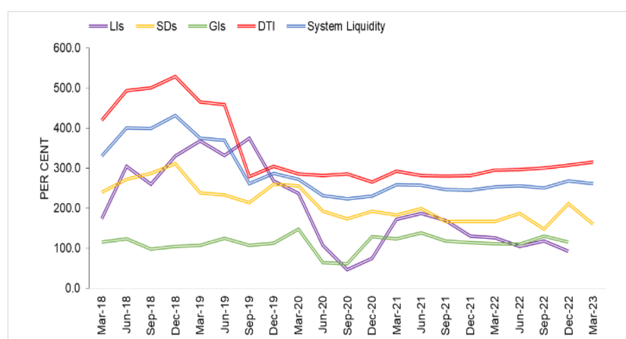
Source: Bank of Jamaica and Financial Services Commission

2.2 **Generally, the liquidity transformation risk metric for the system was fairly stable since March 2021.** On a sectoral level, the trend in the ratios for DTIs and NDTFI fluctuated, however, since March 2021, the ratios have stabilized and remained below levels observed prior to 2020. This indicated a gradual effort towards improving liquidity levels over the period amid tightening financial conditions due to COVID-19, asset price volatility as well as the implementation of the LCR ratio for DTIs. (see **Chart 2.1**)[9].

2.3 The overall improvement in liquidity transformation resulted from a faster pace of growth in liquid assets relative to a decline in short-term liabilities.[10] The improvement in liquidity transformation for the NDTFI sub-sector was mainly due to a larger than proportional growth in liquid assets relative to the decline in short-term liabilities.[11,12]

2.4 For the quarter ended March 2023, the liquidity transformation risk metric for the DTI sector increased further (deteriorated) by 7.9 percentage points to 315.2 per cent. The deterioration in this metric was primarily driven by an increase in short-term liabilities relative to a marginal decline in liquid assets.[13] The increase in short-term liabilities was driven by a 2.7 per cent increase in "on call" deposits (both demand deposits and savings deposits), while the fall in liquid assets was due to the maturity of government of Jamaica securities.

Chart 2.1 Liquidity transformation – DTIs, securities dealers, life and general insurance companies



[9] Of note, there has been a slight trend increase in the ratio for the DTIs since December 2021, partly reflective of these institutions re-deploying liquidity to support their operations (in extending loans to clients).

[10] Liquid assets for the system grew by 2.4 per cent while short-term liabilities declined by 0.2 per cent at end March 2023, relative to end 2022.

[11] Liquid assets for securities dealers increased by 17.5 per cent at end March 2023, while at end 2022, liquid assets for life insurance and general insurance sub-sectors increased by 24.8 per cent and 7.8 per cent, respectively.

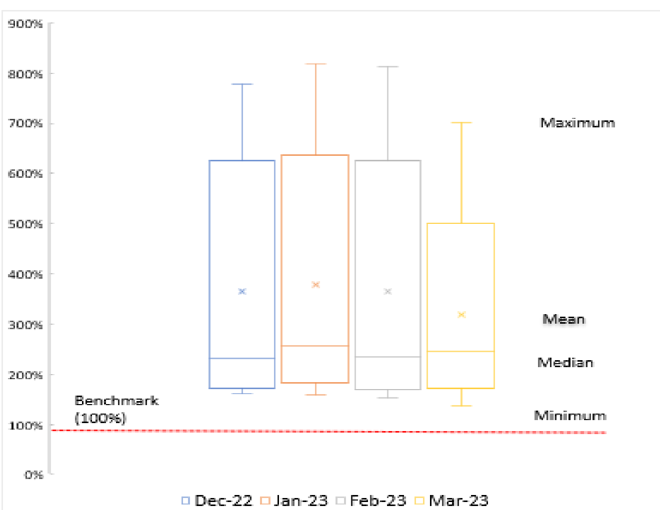
[12] The increase in liquid asset for the SD sector was primarily driven by growth in liquid assets by three of the top 10 securities dealers. Specifically, JMMB, Barita & Sagicor investments realized growth in liquid assets of 151 per cent, 18 per cent and 78 per cent, respectively.

[13] At end-March 2023 short-term liabilities for the DTI subsector increased by 1.7 per cent, while liquid assets declined by 0.1 per cent, relative to end 2022.

Source: Bank of Jamaica and Financial Services Commission

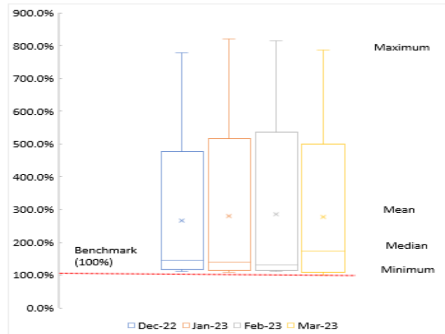
2.5 **Consistent with the improvement in liquidity transformation, the liquidity coverage ratio (LCR) showed that DTIs' liquidity remained robust.**[14] At end-March 2023, all DTIs exceeded the LCR benchmark of 100.0 per cent, with an average ratio for the sector of 308.8 per cent, relative to 339.8 per cent at end-2022. With regard to the Jamaican dollar-denominated LCR however, a significant improvement in the average ratio to 258.6 per cent was recorded at end-March 2023, relative to 211.7 per cent at end-2022 (see **Charts 2.2** and **2.3**).[15]

Chart 2.2 Liquidity coverage ratio (JMD and USD equivalent) at end-March 2023 – DTIs



Source: Bank of Jamaica

Chart 2.3 Liquidity coverage ratio (JMD only) at end-March 2023 – DTIs



Source: Bank of Jamaica

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

3.1 **DTIs' exposure to households, as measured by the ratio of household loans to DTI assets at end-March 2023, increased marginally by 0.5 percentage point to 27.2 per cent, relative to end- 2022.** This was primarily due to stronger growth in household debt, relative to the overall growth in DTIs' assets.[16]

3.2 Household loans, which consist of consumer loans and residential mortgage loans, grew by 2.7 per cent over the March 2023 quarter, mainly due to an increase of 3.8 per cent in consumer loans. Household loans continued to account for the largest share of the DTIs' loan portfolio (see **Charts 3.0 and 3.1**).[17]

[14] LCR is a requirement under Basel III whereby banks are required to hold an amount of high-quality liquid assets (HQLA) that's enough to fund cash outflows for 30 days.

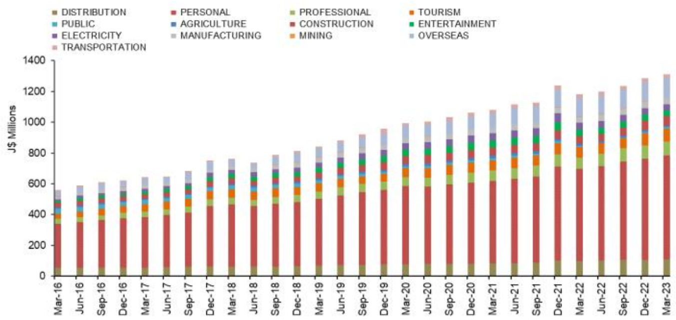
[15] The decline in the total JMD LCR was driven by the USD component of the LCR. In relation to the average JMD only LCR, the increase was mainly driven by a large improvement in HQLA for one DTI.

[16] Increase in assets were primarily due to an increase in liquid funds.

[17] Personal Loans is used as a measure of household debt. It excludes NHT loans.

3.3 **The quality of the loans extended to the household sector by DTIs remained relatively unchanged over the review period**. The ratio of households' non-performing loans (NPLs) to total household loans declined by 0.1 percentage point to 3.2 per cent at end-March 2023, relative to end-2022. Similarly, the ratio of household past due loans to total household loans decreased to 3.1 per cent at end-March 2023, from 3.5 per cent at end-2022. This reduction was primarily driven by a stronger decline in households' past due loans (10.3 per cent or J$2.4 billion), relative to the growth in total household loans.

Chart 3.0 **Loan concentration- selected industries**



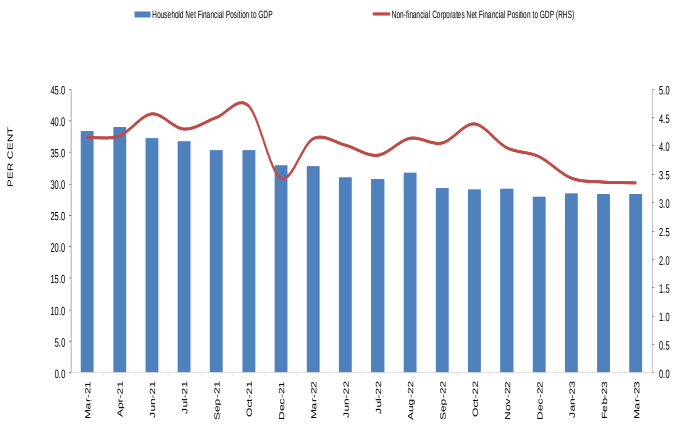
Source: Bank of Jamaica

3.4 **Debt sustainability measures for households and non-financial corporates (NFCs) showed mixed results over the review period.** Households' net financial position to GDP increased (improved) by 0.3 percentage point to 28.3 per cent at end-March 2023, relative to end-2022. This increase was due to an increase in households' net financial position, due to a stronger increase in households' assets, relative to liabilities. However, NFCs' net financial position to GDP fell by 0.5 per cent to 3.4 per cent at end March 2023 relative to end-2022. The decrease in the ratio was primarily due to an increase in NFCs' liabilities (see **Chart 3.2**).[18]

Chart 3.1 **Decomposition of household debt**

[18] The increase households' net financial position was primarily due to an increase in customer deposits. Also, the increase in NFC's liabilities was due to an increase in NFC's debt.

Chart 3.2 Households' and NFCs" net financial positions[19]

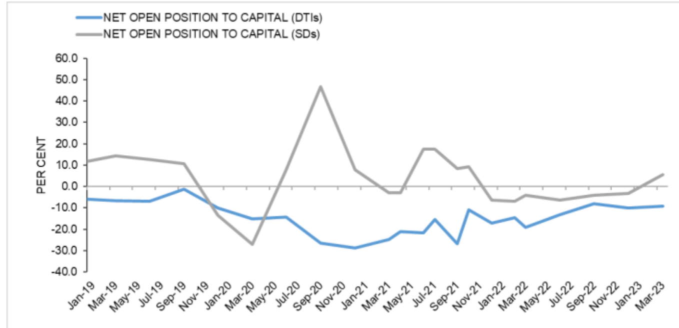


Source: Bank of Jamaica

3.5 At end-March 2023, the DTI sector recorded a net open *short* FX position to capital of 9.2 per cent, relative to a short position of 10.0 per cent at end-2022.[20] This was within the prescribed range of +15 per cent/-25 per cent established by the Bank (see **Chart 3.3**).

3.6 Securities dealers recorded a net open *long* position to capital of 13.2 per cent at end-Mar 2023, compared to a net open *short* position to capital of 3.3 per cent at end-2022. This change was due to increased holdings of USD-denominated assets by two entities affiliated to a DTI group.[21]

Chart 3.3 Net open position to capital[22]



Source: Bank of Jamaica

Objective 4 – Limit the impact of interconnectedness and systemic importance

4.1 **For the March 2023 quarter, there was a decrease in interconnectivity and counterparty risks.** The dollar value of funding exposures within the domestic financial network fell by 4.0 per cent to $315.5 billion at end-March 2023, relative to $328.7 billion at end- 2022 (see **Table 4.0**).

[19] 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.

20 The net open position across the selected foreign currencies for each institution is the sum of the foreign currency spot position, net forward position and the foreign currency guarantees that are certain to be called and likely irrevocable. The spot position is calculated as foreign currency assets less foreign currency liabilities and capital items.

[21] The higher volatility in the securities dealers' NOP during the pandemic is largely attributable to the actions of a few large players in the market and is reflective of constant portfolio adjustments to meet client needs.

[22] The increase in December 2022 was mainly attributable to an entity affiliated to a DTI group holding a significant amount of "Other currency" assets

4.2 **There was also a reduction in systemic risk within the domestic network.** The systemic risk score declined to 5.4 per cent at end-March 2023, relative to 5.8 per cent at end-December 2022. This was due to a lower concentration of risk within key financial institutions in the network. Similarly, there was a significant decrease in the fragility score of 1.2 percentage points to 16.0 per cent (see Chart 4.0).[23][24] Notably, the reciprocated links and density of the DTIs' and securities dealers' funding network decreased to 51.7 per cent and 31.0 per cent, respectively, at end-March 2023, compared to 54.7 per cent and 32.5 per cent at end- 2022 (see **Table 4.0** and **Chart 4.1**).[25,26] This outturn indicates that financial institutions were marginally less willing to engage in interbank funding transactions with each other, particularly those outside of their financial group.

4.3 **Funding transactions among group affiliates and foreign institutions remained the main sources of systemic risk.** There was an increase in exposures among group affiliates over the review period. Foreign institutions' funding of the domestic network was $187.6 billion at end-March 2023, relative to $205.5 billion at end-December 2022.

Table 4.0 Descriptive statistics of the financial institutions "funding to" exposures network[27,28]

J$'000	Dec-22	Mar-23
Total System Funding to Exposure	328,664,196.91	315,481,282.91
Total Funding of Highest Lender	46,975,662.00	60,061,771.00
Maximum Single Transaction	21,027,334.06	21,027,334.06
Network Metrics		
Network Mean	711,394.37	682,859.92
Reciprocity (%)	54.7	51.7
Density (%)	32.5	31.0
Systemic Risk Score	5.8	5.4
Fragility Score	17.2	16.0
Diameter[29]	7.0	4.0
Articulation Points	1	1

Source: Bank of Jamaica

[23] The systemic risk score utilizes an adjacency matrix (which quantifies the influence of each institution) to capture the interconnectedness of the institutions in the system, by aggregating each institutions' contribution to systemic risk.

[24] Fragility refers to how quickly the failure of any one institution would trigger failures across the network. The greater the degree of concentration in a few institutions the higher the fragility. Scores above 2 are considered fragile.

[25] Reciprocity reflects the proportion of bi-directional funding relationships (Entity X both sends and receives funding from Entity Y and vice versa) that exist in the network.

[26] Density measures the proportion of actual funding relationships in the system against the total number of potential funding relationships in the network.

[27] Network Metrics (reciprocity, density, systemic and fragility score, diameter and articulation points) are based on a network without foreign transactions.

[28] Network Metrics as at September 2021 include DTIs and the ten main SDs.

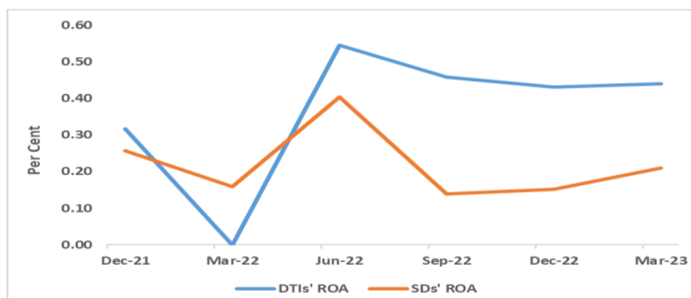
[29] Diameter indicates the "speed" of contagion, the more institutions on the diameter the slower the "speed" of contagion.

Objective 5 – Strengthen the resilience of the financial system

5.1 **Capital adequacy remained above prudential requirements across the financial system. In addition, DTIs' earnings and profitability remained stable for the March 2023 quarter.** The capital adequacy ratio (CAR) for the DTI sector was relatively unchanged at 14.2 per cent at end-March 2023, relative to end-December 2022. Furthermore, the CAR for securities dealers' sub-sector marginally declined to 21.0 per cent at end-March 2023, relative to end-2022. In addition, the general insurance sub-sector had a Minimum Capital Test ratio of 304.5 per cent at end-December 2022, which exceeded the regulatory minimum of 175.0 per cent. The life insurance sub-sector recorded a Minimum Continuing Capital Surplus Requirement of 270.7 per cent at end-December 2022, also well above the regulatory benchmark of 150.0 per cent see **Appendix – Table 1.0**)[30]

5.2 DTIs' and securities dealers' return on assets (ROA) was relatively unchanged for the March 2023 quarter at 0.4 per cent and 0.2 per cent, respectively, relative to the December 2022 quarter (see **Chart 5.0)**. Life insurance and general insurance companies' ROA increased to 2.4 per cent and 0.6 per cent, respectively, for the December 2022 quarter, relative to 2.1 per cent and 0.3 per cent for the September 2022 quarter. The increase in the earnings and profitability for the non-deposit taking institutions (NDTFIs) was primarily due to higher growth in total income earned and gross written premiums, relative to growth in assets.

Chart 5.0 Profitability indicator trends for both DTIs and securities dealers

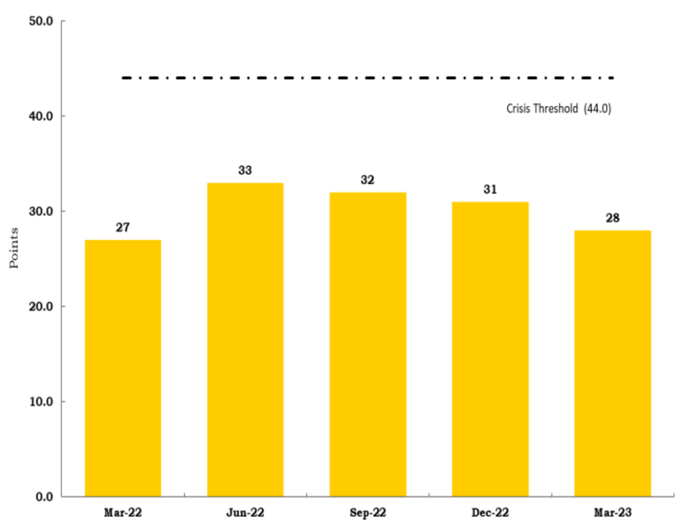


Source: Bank of Jamaica and Financial Services Commission

[30] Due to the unavailability of data for the insurance sector, analysis was done to end-December 2022.

5.3 **Aggregate measures of financial stability in Jamaica showed an improvement in macro-financial conditions for the March 2023 quarter**. The macro-financial index (MaFI) improved to 28.0 points for the March 2023 quarter, relative to 31.0 points for the previous quarter. This was largely due to an accelerated annual growth in private sector credit, which moved to a signal of 3.0 points at end-March 2023, from a signal of 5.0 points at end-2022. (see **Chart 5.1**).

Chart 5.1 Macro-financial index[31]



Source: Bank of Jamaica

Stress tests

5.4 Stress tests were conducted to determine financial institutions' resilience to the impact of increases in bond yields as well as deterioration in the quality of loans to *Tourism* and *Overseas Residents* (based on data as at end-March 2023).[32] Given the uncertainty surrounding the future path of the domestic and the external economy, two scenarios (moderate and severe) related to increases in GOJ bond yields and a recession in the US, which would result in increases in NPLs for the *Tourism* & *Overseas Residents* sectors, were contemplated (see **Table 5.1**).

5.5 The results of the interest rate risk assessment at end-March 2023 showed that the financial institutions were generally resilient to the contemplated increases in GOJ bond yields.[33] This resilience was largely due to the size of the sector's buffer capital and strong levels of regulatory capital.

5.6 The credit risk assessment for the Tourism and Overseas Residents sector, show that DTIs were generally robust to the hypothetical shocks under both scenarios.

[31] The MaFI is a signal-based index computed using scores for indicators based on the number of standard deviations of each indicator from its 'tranquil period' mean value. The tranquil period for both indices spans the period March 2002 to March 2003. The scores range from 0 to 5 with a score of 5 representing the most severe signal. The higher the aggregate score, the more severe the signal.

[32] There are concerns that the US economy will slip into a recession in the near term, which could impact the debt servicing capacity of some economic sectors of the Jamaican economy. The credit risk assessment assesses the impact of a joint increase in NPLs and a migration of performing loans to becoming nonperforming for the Tourism and Overseas Residents sectors.

[33] As a result of selected shocks/increases in yields, the new market value of these securities (GOJ bonds) are recalibrated using the price formula in excel. Next the fair value loss is derived and deducted from available buffer capital. However, if the buffer capital is insufficient to cover losses, the residual FV losses are deducted from statutory capital and the corresponding post-shock CAR re-calibrated.

Summary & Policy Implications

6.1 For the March 2023 quarter, the standard indicators of financial system health continued to improve. Notably, financial entities were found to be generally adequately capitalized, liquid and profitable. Furthermore, broad vulnerabilities were reduced as composite macroeconomic measures generally improved.

6.2 The primary source of uncertainty for the Jamaican economy in the near term include sustained inflationary pressures as well as weakened external demand from a potential global recession. In light of these uncertainties, stress tests were conducted to assess the potential consequences of these events on the domestic financial sector. The results of these stress tests indicate that the financial sector remains largely resilient to these shocks.

Appendix

Table 1.0 Select Financial Soundness Indicators

	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23
Asset to GDP (%)						
DTI	105.59	108.90	101.40	94.22	93.83	94.40
SDs	35.67	27.07	33.55	32.48	31.82	31.55
LIs	18.25	22.58	16.37	15.71	15.43	n/a
GIs	4.69	4.69	4.80	4.59	4.32	n/a
Capital Adequacy (%)						
DTI (CAR)	14.15	14.26	14.08	13.77	14.23	14.21
SDs (CAR)	21.44	21.44	22.29	19.88	21.85	20.97
LIs (MCSSR)	211.15	212.75	232.80	254.39	270.66	n/a
GIs (MCT)	281.90	276.31	268.94	296.69	304.47	n/a
ROA (%)						
DTI	0.32	(0.00)	0.55	0.46	0.43	0.44
SDs	0.26	0.16	0.40	0.14	0.15	0.21
LIs	2.35	1.71	2.75	2.13	2.44	n/a
GIs	0.53	(0.08)	(0.16)	0.31	0.59	n/a
Liquidity (%)						
DTIs Liquidity Coverage Ratio (LCR)	260.20	230.96	211.59	199.29	182.42	183.61
DTIs (liquid assets to short-term liabilities)	27.84	29.52	30.24	29.65	27.47	26.30
SDs (liquid assets to short-term liabilities)	18.20	17.31	16.42	16.89	13.23	n/a
LIs (liquid assets to total liabilities)	24.86	22.71	24.21	24.84	30.38	n/a
GIs (liquid assets to total liabilities)	67.76	69.44	69.65	66.62	70.25	n/a
Non-Performing Loans to Total Loans (%)						
DTIs	2.92	2.75	2.69	2.50	2.51	2.44
SDs	0.75	0.58	0.90	0.66	0.68	n/a
Past Due Loans to Total Loans (%)						
DTIs	2.58	3.03	2.69	2.97	2.99	2.51

Source: Bank of Jamaica and Financial Services Commission

Heat Maps of Core Indicators

The below tables provide the values over time of core indicators associated with macro-prudential assessment objectives. Each indicator is ranked according to five percentiles based on the empirical distribution of historical values. Each percentile is shaded according to the below key.

0 – 20%, 21% – 40%, 41% – 60%, 61% – 80%, 81% – 100%

Objective 1: Core indicators associated asset price and credit boom-bust cycles

			Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23*
Objective 1: Mitigate and prevent excessive credit growth and leverage	Credit-to-GDP measures 1/	DTI private credit-to-GDP gap	8.13	7.53	4.55	4.18	1.80	1.44	-0.17	-0.47	-0.88
		Total credit-to-GDP gap	8.18	7.55	4.55	3.89	1.56	1.06	-0.52	-0.58	-0.89
	Credit Indicators: year-on-year growth (%)	Total Credit	8.45	6.83	7.08	7.08	8.05	7.73	10.28	4.36	12.30
		DTI Credit to Households	5.06	6.40	4.80	5.56	10.81	9.60	6.71	6.98	3.47
		DTI Credit to Non-financial Corporates	10.44	5.36	1.74	12.17	12.10	5.48	4.78	6.71	4.15
	Leverage 2/	DTI	709.42	710.89	737.13	771.07	782.52	782.52	812.35	759.38	769.51
		SDs	638.61	594.53	571.96	588.55	625.20	625.20	705.07	663.83	-
		LIs	297.12	274.98	269.28	269.80	261.81	262.41	251.33	240.48	-
		GIs	293.74	306.52	298.63	289.77	296.78	358.71	348.07	347.19	-

1/ Total credit is DTI credit plus public sector credit (gross loans to public sector)

2/ Leverage = (total financial assets) / equity

3/ * Data for March 2023 remains unavailable for SDs, Lis and GI's, therefore the missing indicators are denoted by the symbol in parentheses (-)

Objective 2: Core indicators associated with the intermediation of funds

			Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23*
Objective 2: Mitigate and prevent excessive maturity mismatches and market illiquidity	Cumulative Maturity Gap to Total Assets (%)	DTIs - up to 30 days	-40.36	-42.05	-41.92	-40.66	-43.21	-44.89	-44.85	-44.42	-44.66
		DTIs - up to 90 days	-44.02	-46.61	-45.95	-44.35	-47.83	-47.86	-46.33	-44.89	-45.87
		DTIs - up to 365 days	-44.42	-44.85	-44.69	-45.38	-46.06	-46.50	-44.91	-44.88	-45.73
		SDs - up to 30 days	-15.86	-14.82	-11.16	-9.63	-6.17	-7.68	-4.19	-9.25	-
		SDs - up to 90 days	-31.38	-28.48	-24.26	-20.76	-22.75	-21.95	-22.04	-26.21	-
		SDs - up to 365 days	-31.82	-33.73	-27.85	-32.40	-28.33	-29.40	-32.84	-30.75	-
	Maturity Transformation (%)[1/]	DTI - MT1	45.42	43.78	43.71	44.41	45.01	45.01	43.88	44.01	44.28
		SDs - MT1	31.14	36.03	31.71	36.19	32.44	32.44	30.36	28.06	-
		LIs - MT1	2.16	3.39	2.12	3.18	0.59	-1.77	-1.43	-4.76	-
		GIs - MT1	-12.51	-11.68	-11.13	-14.48	-29.34	-22.28	-26.59	-26.58	0.00
	Liquidity Transformation (%)[2/]	DTI - LT3	292.44	281.72	280.18	281.05	295.91	295.91	300.88	307.26	315.19
		SDs - LT3	183.13	199.27	167.46	167.20	166.84	166.84	148.20	211.97	-
		LIs - LT3	86.97	187.18	169.50	130.83	125.59	104.84	117.78	93.04	-
		GIs - LT3	123.72	138.47	122.59	114.32	112.02	110.02	129.77	114.92	-

[1/] MT1 = (long term assets - long term liabilities - nonredeemable equity) / total financial assets
[2/] LT3 = short term liabilities [≤ 30 days] / liquid assets [broad]
[3/] * Missing indicators, due to unavailable date, are denoted by the symbol in parentheses (-).

Objective 3: Core indicators associated with exposure concentrations

			Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23*
Objective 3: Limit direct and indirect exposure concentrations	Exposure to Financial Markets (%)	Composite Indicator of Systemic Stress	0.36	0.30	0.28	0.39	0.23	0.37	0.27	0.37	0.31
		DTIs - Net open position to capital	-23.94	-21.47	-26.78	-16.86	-19.00	-13.12	-8.05	-9.97	-9.23
		Securities Dealers - Net open position to capital	-2.96	17.64	8.50	-6.42	-4.01	-6.41	-4.19	-3.28	0.00
	Exposure to Sovereign Risk (%)	DTIs - Public Sector Debt to total assets	9.88	9.72	10.00	9.32	9.67	8.83	7.76	8.22	7.32
		Securities Dealers - Public Sector Debt to total assets	15.47	15.14	15.27	15.45	14.55	14.39	14.51	14.97	-
		Insurance Companies - Public Sector Debt to total assets	36.40	35.22	35.54	36.39	23.40	34.69	35.57	35.89	-
	Exposure to Households and Corporates (%)	Household debt to GDP	36.85	38.44	37.29	36.90	37.25	37.13	33.47	32.86	33.54
		Household Net Financial Position to GDP	36.65	38.97	36.54	34.42	31.57	31.70	29.40	28.02	28.33
		Corporate debt to GDP	20.22	20.67	19.65	21.39	20.87	19.28	17.38	17.56	17.87
		Corporate Net Financial Position to GDP	4.14	4.79	4.67	2.10	3.17	4.76	4.06	3.82	3.36
	Exposure to Real Estate (%)	DTIs - Mortgages to Assets	11.26	11.19	11.31	11.48	12.53	12.16	12.47	12.49	12.83

[1/] * Data for March 2023 remains unavailable for SDs, Lis and GI's, therefore the missing indicators are denoted by the symbol in parentheses (-)

Objective 4: Core indicators associated with systemic importance and interconnectedness

			Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23*
Objective 4: Limit the impact of interconnectedness, systemic importance and misaligned incentives	**Systemically Important Financial Institutions (SIFIs)**	Total SIFI group assets to total system assets	76.95	77.26	76.87	77.00	76.74	77.00	64.80	64.44	-
	Non-Deposit Taking Financial Institution (NDTFIs)	NDTFIs asset share to total system assets	35.98	35.93	35.96	35.70	36.01	36.52	35.91	35.48	-
	Dollarization Indicators (%)	FX investment holdings to total investment - SDs	53.35	55.98	53.14	53.66	55.98	55.10	55.15	54.51	-
		FX loan & investment holdings to total investment - DTIs	31.97	31.73	30.83	32.11	31.56	30.71	32.25	32.86	32.62
		FX deposits to total deposits - DTIs	38.50	38.90	38.82	39.64	41.05	40.11	39.89	39.01	38.34

1/ * Missing indicators, due to unavailable date, are denoted by the symbol in parentheses (-).

Objective 5: Core indicators associated with resilience of financial institutions and the macro-financial environment.

			Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23*
Objective 5: Strengthen the resilience of the financial system & infrastructure	**Composite Indices**	Macro-Financial Index	22.00	21.00	21.00	25.00	28.00	33.00	32.00	31.00	28.00
		Micro-Prudential Index - DTIs	26.00	21.00	25.00	29.00	25.00	27.00	28.00	26.00	28.00
		Banking Stability Index	-0.11	0.39	0.21	-0.16	0.10	0.32	0.04	0.03	-2.34
		Aggregate Financial Stability Index	0.56	0.59	0.53	0.53	0.47	0.48	0.47	0.48	0.51

1/ * Missing indicators, due to unavailable date, are denoted by the symbol in parentheses (-).