Macroprudential Policy Report

Highlights

June 2024

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 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.*

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Overview

The financial system remained fairly stable during the March 2024 quarter. This performance was supported by positive real GDP growth and a relatively stable foreign exchange market. The Bank's composite measure of financial stability as well as other standard measures of financial health remained within historical normal ranges.

However, higher than targeted inflation and the attendant elevation of interest rates pose a risk to financial institutions' investment and credit portfolios. Financial institutions have continued to record fair value losses on their balance sheets due to the adverse effect of relatively high interest rates on their assets (bonds and equities). In addition, while the system is adequately provisioned, there is some evidence of a marginal increase in past due loans. However, the non-performing loans ratio for deposit-taking institutions (DTIs) remains below the 10.0 per cent threshold and therefore does not warrant heightened supervisory concerns.

Inflation has generally settled within the Bank of Jamaica's target range over the three months preceding June 2024 but the risks to inflation in the future are now skewed to the upside, particularly in the short-term. The Monetary Policy Committee of the Bank also initiated a programme of monetary loosening but it noted that future monetary policy decisions will continue to depend on incoming data. Based on the foregoing, DTIs and securities dealers were subjected to market-based and credit-related stress tests. The results showed that the financial system remained largely resilient to these macrofinancial shocks.

The Bank remains vigilant in monitoring and stress testing the credit and investment portfolios of DTIs and securities dealers to ensure that the levels of liquidity and capital are sufficient in the current environment.

1.0 Macroeconomic/Macro Financial Developments

1.1 Real GDP grew by 1.4 per cent for the March 2024 quarter, broadly at the same pace as the previous quarter. Continued growth implies the potential for increased sources of funding, credit creation and improved credit quality within the financial sector (see **Chart 1.0**).

1.2 Inflation moderated to 5.6 per cent at end March 2024 from 6.9 percent at end 2023 (see **Chart 1.1**). Furthermore, the most recent projections (at May 2024) indicated that inflation is expected to remain within the Bank's target band for the foreseeable future, with only minor breaches of the upper limit of the target range occurring in a few months in 2025. However, the risks to these projections are skewed upwards which could precipitate further monetary tightening.

Chart 1.0 Domestic and US Real GDP Growth Rate

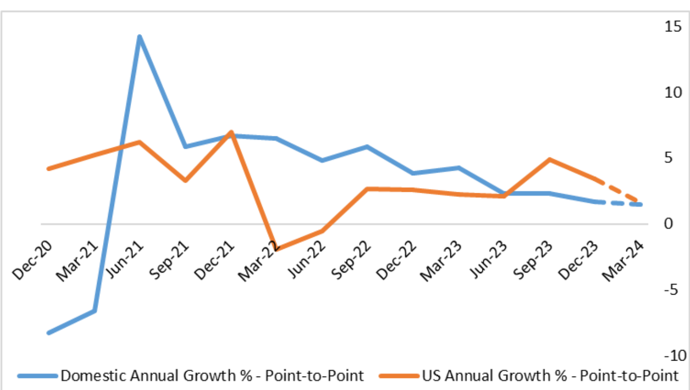
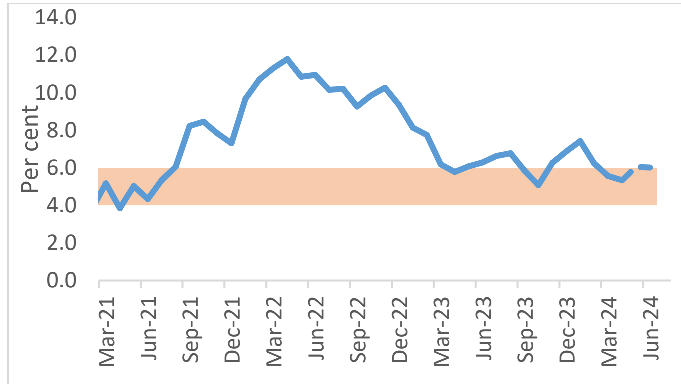
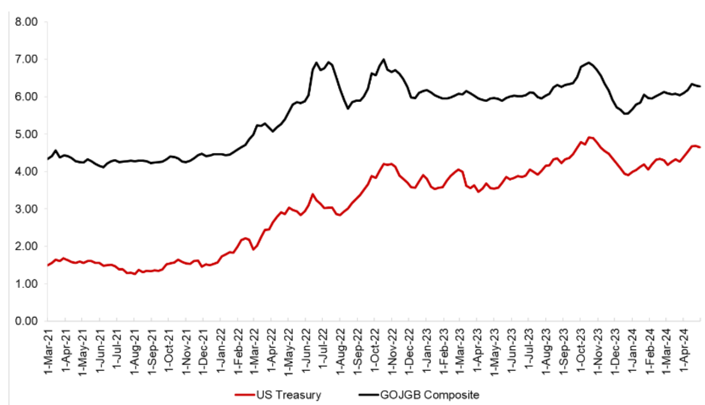


Chart 1.1 Jamaican Inflation Rate



1.3 The exchange rate has remained relatively stable, buoyed by recent policy changes which have eased restrictions on financial entities to provide foreign currency liquidity in the market.

Chart 1.2 Weekly Average Sovereign Bond Yields

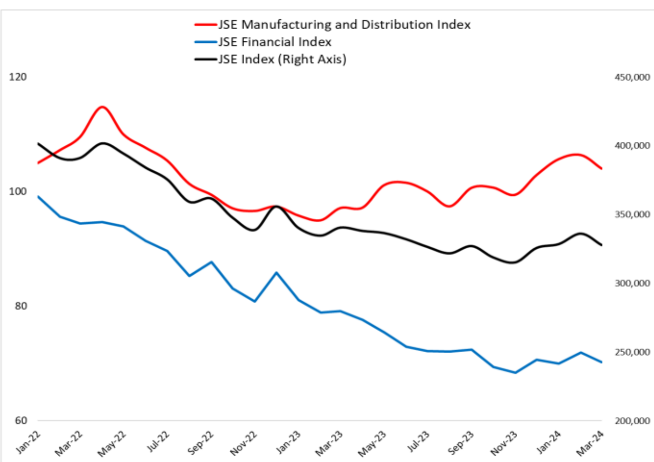


Source: Bank of Jamaica

1.4 GOJ Global Bond yields had begun to decline towards the end of 2023 as U.S. inflation trended downwards. However, as consensus forecasts in the first quarter of 2024 indicated that inflation would remain elevated, the trend in interest rates began to reverse during the March 2024 quarter (see **Chart 1.2**).

1.5 The domestic equity market grew strongly between December 2023 and February 2024. This strong growth occurred in the context of the buoyancy of the domestic economy, reflected in the earning reports of selected companies. This buoyancy in the market was, however, reversed in March 2024, driven by declines in both the JSE Financial Index and the Non-Financial Indices (see **Chart 1.3**).[1,2]

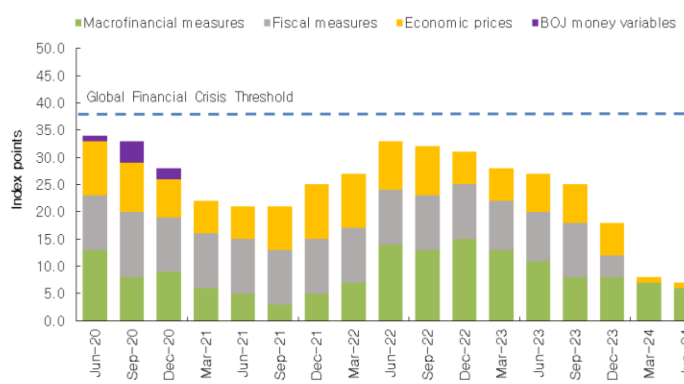
Chart 1.3 Jamaican equity markets performance



Macro-Prudential Indicators

1.6 **In the context of the above noted developments in the economy, aggregate measures showed an improvement in macro-financial conditions for Jamaica**. The macro-financial index (MaFI) is estimated to have improved to a record low of 8.0 points for the March 2024 quarter, relative to 18.0 points for the December 2023 quarter.[3] The continued trend improvement in the index is primarily due to continued declines in the debt ratios. In particular the ratios of national and external debt to GDP, respectively, recorded no signal for the March 2024 quarter compared to a combined signal of 4.0 points in December 2023 quarter. Improved debt levels can impact the ratings on government and corporate bonds, as this signals a reduced probability of default (see **Chart 1.4**).

Chart 1.4 Macro-Financial Index



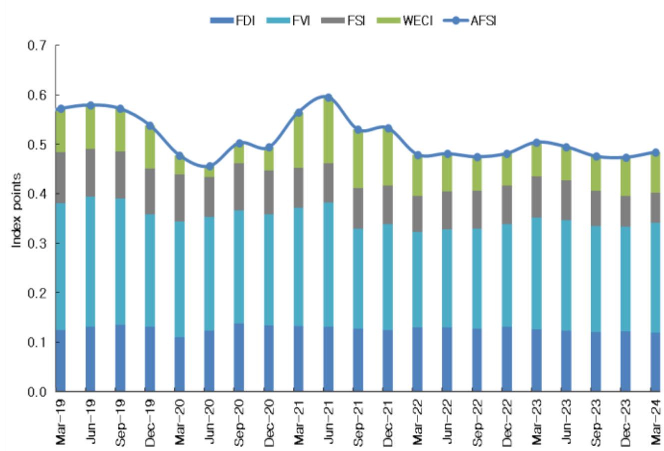
1 The JSE manufacturing and distribution Index measures the performance of only the manufacturing and distribution companies listed on the Main Market and Junior Markets

2 The JSE Financial Index measures the performance of only the financial companies listed on the Main Market and Junior Market.

3 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.

1.7 Similarly, the Aggregate Financial Stability Index (AFSI) improved (increased) to 0.49 for the March 2024 quarter from 0.47 for the December 2023 quarter (see Figure 1.0).[4] The performance of the AFSI reflected an improvement in two sub-indices: Financial Vulnerability and World Economic Climate. In particular, the outturn for the financial vulnerability sub-index reflected a decrease in domestic inflation while the improvement in the World Economic Climate was due to a moderation in global inflation (see **Chart 1.5**).

Chart 1.5 Aggregate Financial Stability Index



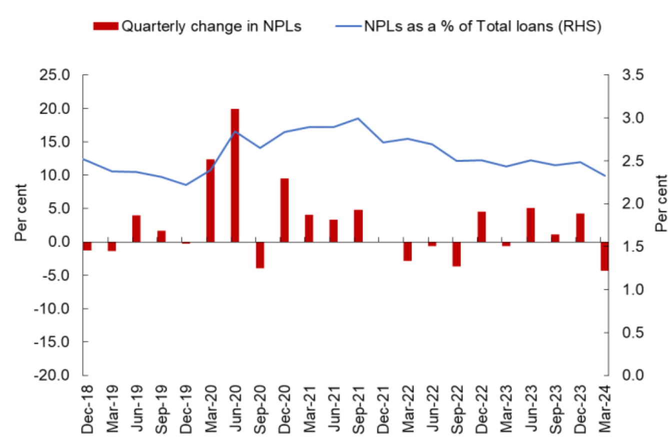
2.0 Emerging Risk Assessment

Credit Risks

2.1 **DTIs' asset quality remained fairly stable over the review period.** The ratio of non-performing loans to total loans decreased by 0.2 percentage point to 2.3 per cent at end-March 2024, relative to end-2023. Of note, the nominal value of NPLs declined by 4.4 per cent to $33.8 billion for the review period (see **Chart 2.0**). However, this performance was outpaced by the expansion in DTIs' loan portfolio.

2.2 In the context of developments within the construction sector, the nominal value of PDLs associated with bank's mortgage portfolios (particularly residential mortgages) have increased. However, given the growth in mortgage loans, the mortgage PDLs ratio remained fairly stable over the review period.[5]

Chart 2.0 NPLs in the DTI Sector



Source: Bank of Jamaica

[4] The Aggregate Financial Stability Index is computed as a weighted average of normalized balance sheet and macroeconomic indicators, capturing financial development (FDI), financial vulnerability (FVI), and financial soundness (FSI). See BOJ working paper, "Measuring and Forecasting Financial Stability: The Composition of an Aggregate Financial Stability Index for Jamaica", Verlie Morris (2010).

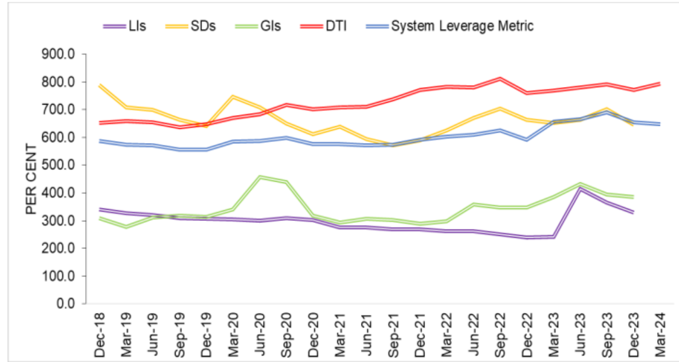
[5] The mortgage PDLs ratio is calculated as the ratio of past due loans to total mortgage loans.

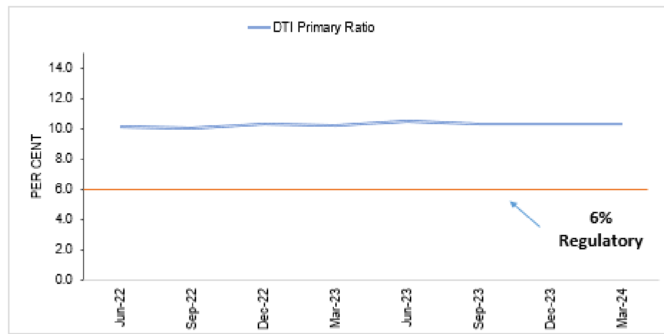
2.3 **Banks remained comfortable in their ability to mitigate their credit risk.** The NPL coverage ratio increased marginally to 120.9 per cent at end-March 2024 from 119.9 per cent at end-2023.[6] This outturn primarily reflected a larger decline in DTIs' NPLs relative to the decrease in provisioning for the review period.[7] Furthermore, the loan loss provisioning rate, as measured by the ratio of loan loss provisions to total loans, was relatively unchanged at 2.9 per cent at end-March 2024.[8]

2.4 The leverage ratio for the financial sector, which measures the extent to which financial institutions use debt to fund asset expansion, declined (improved) during the March 2024 quarter. The leverage ratio for the system declined by 4.87 percentage points to 648.8 per cent for the quarter ended March 2024, which reflected that the financial system increased its use of equity rather than debt to fund asset expansion. This performance was primarily driven by activity within the NDTFI sectors as the DTI sector reflected deteriorated leverage conditions **(see Chart 2.1).**

2.5 Notwithstanding the increase in DTIs' leverage, the primary ratios for all DTIs at end- March 2024 remained above the regulatory requirement of 6.0 per cent, indicating the absence of overleverage.

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





Source: Bank of Jamaica and Financial Services Commission

Market Risks

2.6 **Foreign currency risk within the DTI sector remained fairly stable over the review quarter**. In particular, the ratio of DTIs' foreign currency deposits to their total deposits was unchanged at approximately 37.3 per cent at end-March 2024, relative to the previous quarter.[9]

[6] NPL coverage ratio measures a bank's ability to absorb potential losses from its non-performing loans. It is calculated as provisions for impairment under the International Financial Reporting Standards (IFRS) plus prudential provisions for expected losses based on regulatory criteria as a ratio to NPLs.

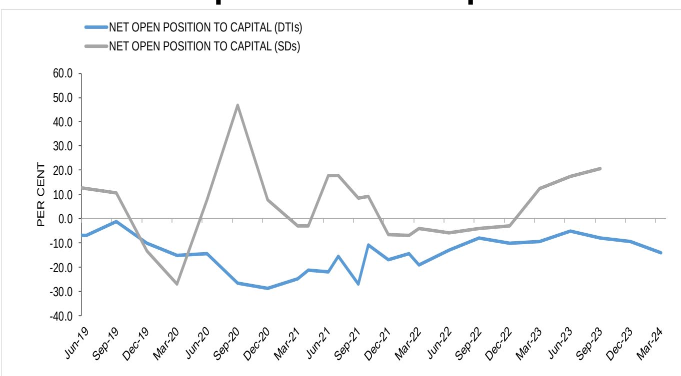
[7] DTIs' total provisions over the review period declined by 3.5 per cent to $40.9 billion at end-March 2024, relative to the 4.4 per cent decline in NPLs.

[8] Loan loss provisions represent the net new allowances that DTIs make in the period against bad or impaired loans. This is done based on their judgement as to the likelihood of losses. Under the IFRS, it is calculated as provisions of impairment plus prudential provisions as a percentage of total loans.

[9] Total deposits are the aggregate of all domestic and foreign currency funds held in demand (including current and savings accounts) and term accounts on behalf of financial (excluding deposit-taking institutions) and non-financial customers.

2.7 At end-March 2024, the DTI sector recorded a net open *short* FX position to capital of 14.1 per cent, relative to a short position of 9.6 per cent at end-December 2023, which represents a slight uptick in FX risk exposure.[10, 11] (see **Chart 2.2**).

Chart 2.2 Net Open Position to Capital



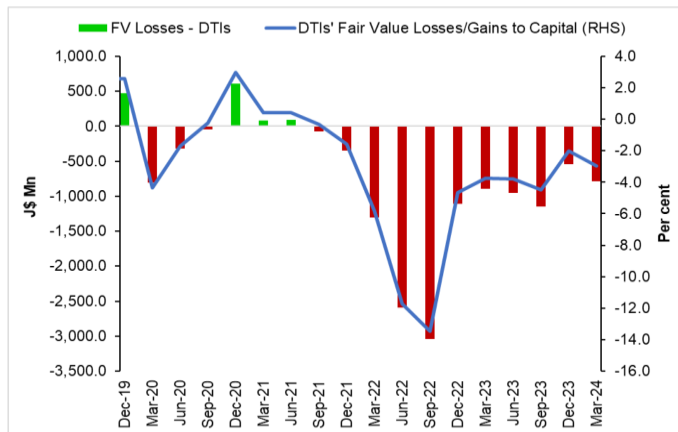
Source: Bank of Jamaica

2.8 **In context of renewed concerns about global inflation and interest rates, GOJ Global Bond (GOJGB) prices began to fall at the start of 2024.**[12] Specifically, for the quarter ended-March 2024, the weighted average of GOJGB prices declined by 1.1 per cent, relative to growth of 1.8 per cent for the previous quarter.

2.9 In this context, DTIs' fair value losses increased by $2.4 billion to $7.8 billion during the March 2024 quarter.[13] This caused the ratio of DTIs' fair value losses to capital to deteriorate by 1.0 percentage point to 3.0 per cent at end-March 2024, compared to the previous quarter (see **Chart 2.3**).

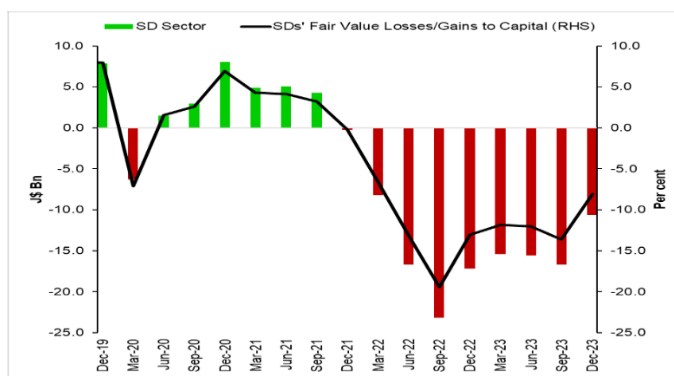
2.10 SDs' fair value losses however declined by $6.0 billion to $10.6 billion over the December 2023 quarter relative to the prior quarter, partly reflective of increased efforts by some SDs to manage the risk by moving to lower risk instruments. This caused the ratio of SDs' fair value losses to capital to improve by 5.9 percentage points to 7.7 per cent at end-2023, compared to end-September 2023 (see **Chart 2.4**).

Chart 2.3 Trends in Fair Value Losses for DTIs



Source: Bank of Jamaica

Chart 2.4 Trends in Fair Value Losses for SDs



[10] These positions were within the prescribed range of +15 per cent/-25 per cent established by the Bank.

11 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.

[12] Since the start of 2024, US inflation trended upward at-end March 2024 to 3.5 per cent, up from 3.2 per cent and 3.1 per cent for February and January, respectively. Since June last year, inflation fluctuated around an average rate of 3.0 per cent. In addition, international commodity prices continue to trend upwards. If global macroeconomic conditions continue to deteriorate, inflation will continue to surge, resulting in a resumption in rate hikes by the FED.

Source: Bank of Jamaica

2.11 **With the exception of the Insurance Companies, NDTFIs' and DTIs' exposure to equities remained low during the March 2024 quarter** (see **Table 1.0).** As such, the fall in stock prices that emerged at the end of the March 2024 quarter does not pose a systemic threat to the financial system. The insurance companies, in particular, typically have long-term investment horizons, allowing them to withstand the short-term fluctuations that are often associated with equity investments. Additionally, the sector remains well capitalized.

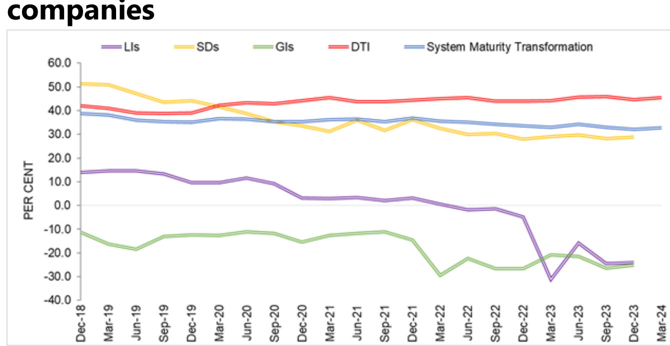
Table 1.0 Trends in Equities Concentration

	Jun-23	Sep-23	Dec-23	Mar-24
Investments in Equities to Assets (%)				
DTIs	0.3	0.2	0.2	0.2
Life Insurance	12.1	11.6	11.5	-
General Insurane	3.4	4.1	4.5	-
Securities Dealers	4.8	4.7	4.6	4.8
Investments in Equities to Capital (%)				
DTIs	2.9	2.8	2.6	2.7
Life Insurance	51.4	46.7	41.9	-
General Insurane	11.9	12.1	12.9	-
Securities Dealers	31.9	34.4	29.8	32.3

2.12 **The maturity transformation ratio for the financial system, which measures the maturity mismatch between assets and liabilities, remained fairly stable.** For the March 2024 quarter, the maturity transformation risk metric for the financial sector was 32.8 per cent relative to 32.0 per cent for the previous quarter.[14] The stability of the metric reflected a slight increase in long term assets which was offset by declines in long term liabilities and equity.[15]

2.13 For the SD sector, the metric for the December 2023 quarter remained stable relative to the previous quarter, as long-term liabilities and equity grew faster than long term assets.[16] Similarly, the metric for life and general insurance companies also remained stable during the December 2023 quarter. (see **Chart 2.5**).[17]

Chart 2.5 Maturity transformation (long term) DTIs, securities dealers, life and general insurance companies



Source: Bank of Jamaica and Financial Services Commission

[14] Calculation of the maturity metric for the system utilized data at end March 2024 for DTIs and, while for SDs Lis and GIs the metric used data at end December 2023.

[15] For the DTIs the maturity mismatch ratio was 45.6 at end March 2024 relative to 44.6 at end December 2023.

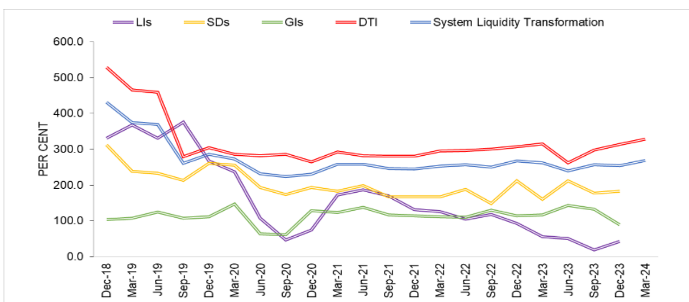
[16] For the SDs sector the ratio was 28.8 at end end-December, relative to 28.3 at end-September 2023

[17] For LIs and GIs the maturity metric was 24.0 and 25.1 respectively at end-December 2023 compared to 24.4 and 26.4 at end-September 2023.

Liquidity Risks

2.14 **The liquidity transformation risk metric for the financial sector deteriorated over the March 2024 quarter.** The metric, which measures the extent of coverage of short-term liabilities by liquid assets, increased by 13.8 percentage points to 268.5 per cent at end-March 2024 (see **Chart 2.6**).[18] This performance reflected a decline in liquid assets relative to marginal growth in short term liabilities (see **Appendix, Chart 1.0**). This outturn reflected increases across the DTI and NDTFI sectors with the exception of general insurance companies. For the DTI sector, the decline in liquid assets reflected declines in notes and coins, reserves held with BOJ and holdings of BOJ and GOJ securities across several entities.

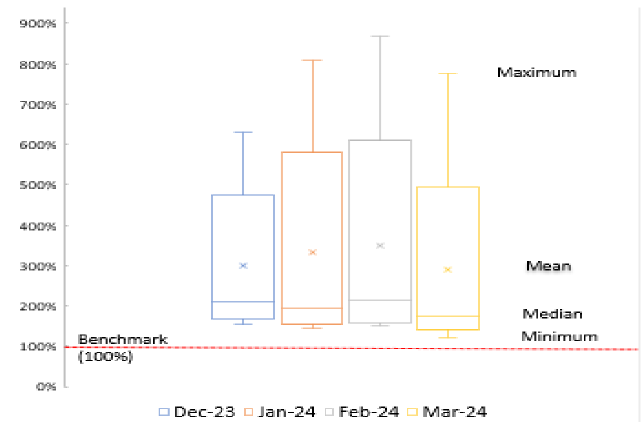
Chart 2.6 Liquidity Transformation – DTIs, securities dealers, life and general insurance companies



Source: Bank of Jamaica and Financial Services Commission

2.15 **Consistent with the deterioration in the liquidity transformation metric, the liquidity coverage ratio (LCR) demonstrated a tightening in DTIs' liquidity.**[19] At end-March 2024, the average LCR ratio for the sector declined to 231.9 from 285.4 percent at end December 2023. Despite this decline all DTIs exceeded the LCR benchmark of 100.0 per cent for both Jamaican and U.S. dollar-denominated LCR and the Jamaican dollar-denominated LCR. (see **Charts 2.7**).

Chart 2.7 Liquidity Coverage Ratio (JMD and USD Equivalent) at end-March 2024 – DTIs



Source: Bank of Jamaica

3.0 Other Exposures

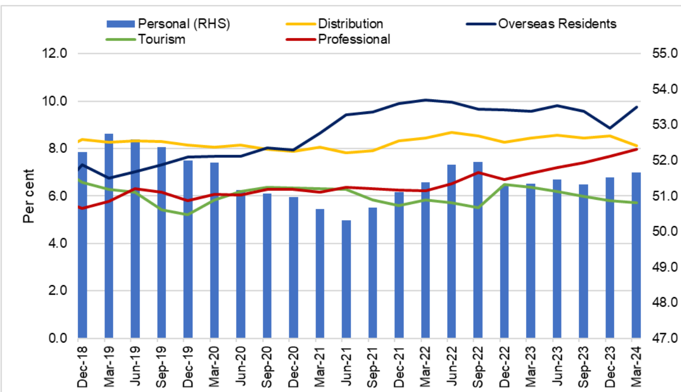
3.1 **There was increased concentration in DTIs' credit to the top 5 economic sectors.** DTIs' credit to the top 5 economic sectors grew to 83.3 per cent of DTIs' total loans at end-March 2024, from 82.4 per cent for the previous quarter. A decomposition of the DTIs' loan portfolio showed the share of DTIs' credit to *Overseas residents* and *Professional services* sectors increased by 0.9 percentage point and

[18] At end-March 2024 short-term liabilities grew by 1.2 per cent while liquid assets declined by 3.3 per cent relative to end December 2023.

[19] 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.

0.3 percentage point respectively, to 9.7 per cent and 8.0 per cent of DTIs' total credit at end-March 2024. In contrast, the share of DTIs' credit to the *Distribution* and *Tourism* sectors declined by 0.4 percentage point and 0.1 percentage point, respectively, to 8.1 per cent and 5.7 per cent (see **Chart 3.0**).

Chart 3.0 DTIs' Share of Credit to the Top 5 Economic Sectors



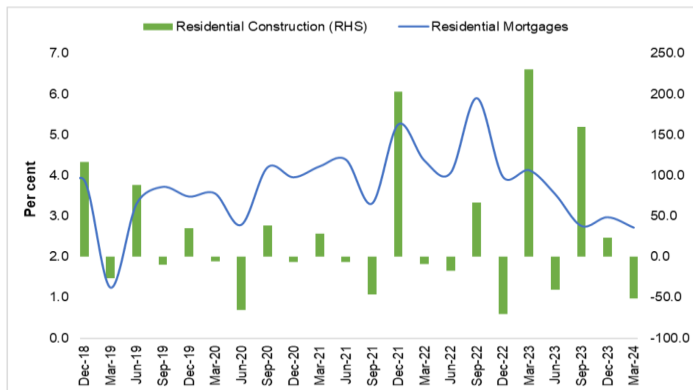
Source: Bank of Jamaica

3.2 **DTIs' exposure to the household (HH) sector rose over the March 2024 quarter.** In real terms, HH sector debt grew by 3.7 per cent for the March 2024 quarter, compared to growth of 0.2 per cent for the previous quarter.

3.3 **The increase in HH debt largely reflected an increase in the real value of residential mortgage loans issued by DTIs.** A decomposition of the DTIs' mortgage portfolio showed that this outturn was primarily driven by the growth in mortgages to overseas residents, albeit at a slower pace of 3.6 per cent, compared to growth of 5.1 per cent for the previous quarter.[20]

3.4 **The slowdown in growth of overall mortgage loans was reflected in a reduction in new mortgage disbursements for the March 2024 quarter.** Of note, there was a sharp contraction in new residential construction loans, which declined by 51.4 per cent for the March 2024 quarter, compared to growth of 23.1 per cent for the December 2023 quarter. In addition, growth in residential mortgages moderated to 2.7 per cent, continuing on a downward trend since reaching a peak of 5.9 per cent observed for the September 2022 quarter (see **Chart 3.1**).

Chart 3.1 Quarterly Growth in Mortgages Disbursements



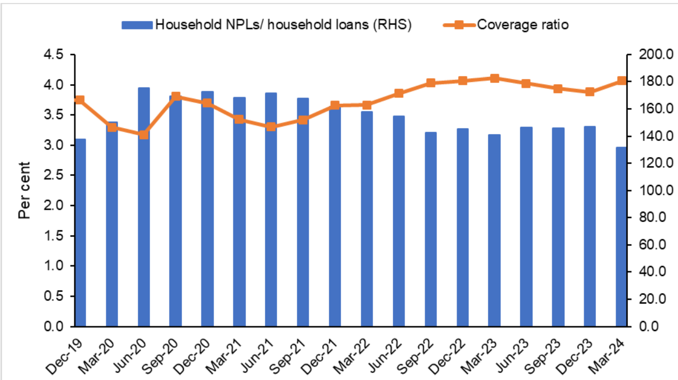
Source: Bank of Jamaica

3.5 **HH loan quality remained fairly stable over the review quarter.** Specifically, the ratio of households' non-performing loans (NPLs) to total household loans decreased marginally to 3.0 per cent at end-March 2024, from 3.3 per cent at end-2023. Similarly, the ratio of household's past due loans to total household loans remained relatively unchanged at 3.5 per cent at the end of the review period, compared to the previous period. In addition, DTIs continued to maintain adequate coverage of NPLs for the HH sector, with ratio of loan loss provisions plus prudential provisioning to HH non-performing loans remaining well above

[20] Mortgage loans to overseas residents were concentrated in purchases for properties locally.

100.0 per cent over the March 2024 quarter (see **Chart 3.2**).

Chart 3.2 DTIs' HH sector loan quality & loan loss provisioning to HH sector NPLs



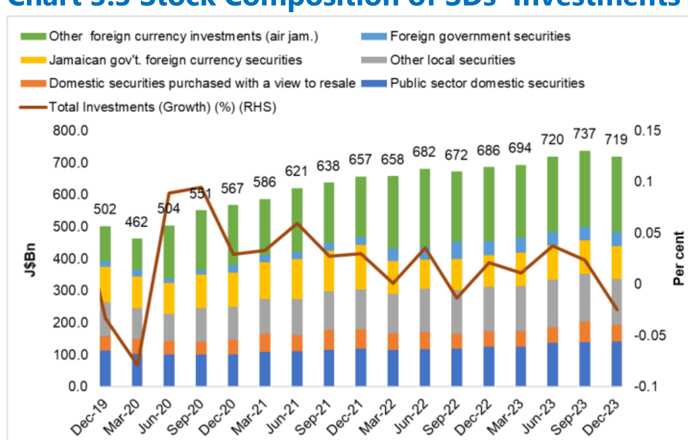
Source: Bank of Jamaica

3.6 **DTIs' exposure to the corporate sector, as measured by corporate sector debt to DTIs' assets, was also relatively stable at end-March 2024.** In particular, this ratio declined marginally to 19.1 per cent from 19.3 per cent at end-2023.

3.7 **In the context of a general shift in investors risk appetite to lower-risk instruments due to uncertainties in the global economy, SDs investment portfolio contracted over the review period.** In particular, SDs' total investments declined by 2.4 per cent to $124.5 billion at end-2023, relative to end-September 2023. The shift in investor risk appetite was reflected in the growth of 1.3 per cent in *Public sector domestic securities*, albeit slower compared to growth of 1.9 per cent for the previous quarter. Similarly, there was an increase in SDs' holdings of *Foreign government securities*. Meanwhile, there was a decline in all other investment components. Of note, the largest decline was reflected in SDs' holdings of *Domestic securities purchased with a view to resale* (see **Chart 3.3**).

3.8 **SDs exposure to public sector debt generally trended upward over the review period.** Of note, SDs' holdings of public sector debt increased by 1.9 percentage point to 141.4 per cent at end-2023, relative to end-September 2023. Similarly, the ratio of SDs' public sector debt to total assets remained relatively unchanged at 15.9 per cent at the end of the review quarter.

Chart 3.3 Stock Composition of SDs' Investments



Source: Bank of Jamaica

4.0 Stress Tests

4.1 **There is a risk that inflation could remain elevated throughout the remainder of 2024,** which could precipitate further monetary tightening and adversely affect financial institutions' investment and credit portfolios. Simulations were therefore used to determine the resilience of domestic financial institutions to further increases in bond yields, declines in equity prices, increases in NPLs, and potential interbank contagion effects.

Table 2.0 Stress Testing shocks/Scenarios

Risk	Risk Factors	Adverse
Market	Bond yields increase: Domestic Global bond yields	 125 bps 100 bps
	Fall in equities	15%
Credit	PDL become NPLs:	80%
Aggregated stress test and second round impact		

Stress Test Results

4.2 The interest rate risk results indicate that both sectors were generally resilient to the contemplated increases in GOJ bond yields (see **Table 2.0**).[21]

4.3 For the shock to equity prices, the results show that the DTI and securities dealers' sectors remain robust to the contemplated shocks, due mainly to their low exposure to equities.[22]

4.4 The findings from the credit risk stress test shows that DTIs also remain generally resilient to the anticipated shocks to PDLs becoming NPLs.

4.5 The combined risk assessment shows that the DTIs and securities dealers remain resilient under the contemplated scenarios.

5.0 Macro Prudential Policy Summary

5.1 Macro-financial conditions remained stable for the March 2024 quarter. This was reflected in the composite indices of macro-financial performance, which displayed overall improvement. Furthermore, financial entities were largely found to be adequately capitalized, liquid and profitable.

5.2 The Bank will continue to stress the credit and investment portfolios of DTIs and SDs to ensure that adequate levels of liquidity and capital are available to support emerging vulnerabilities.

[21] As a result of selected shocks/increases in yields, the new market value of these securities (GOJ bonds) are recalibrated using the price formula. 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 loss is deducted from statutory capital and the corresponding post-shock CAR is calibrated.

[22] The post-shock decline in the value of equities holdings is deducted from available buffer capital. If the buffer capital is insufficient to cover losses, the residual losses are deducted from statutory capital and the corresponding post-shock CAR re-calibrated.

Appendix

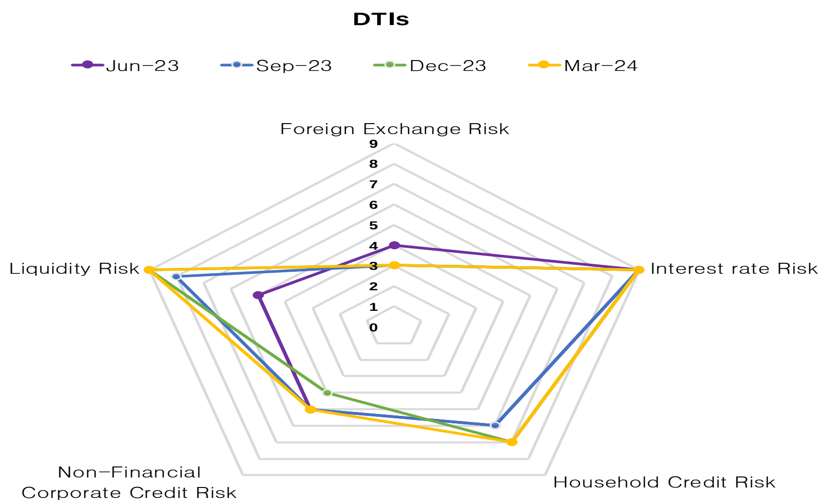
State of the Financial System

Table 1.0 Select Financial Soundness Indicators

	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
Asset to GDP (%)										
DTI	105.6	108.9	101.4	94.2	93.8	94.4	94.7	89.5	89.4	88.9
SDs	35.7	27.1	33.6	32.5	31.8	31.6	32.3	29.7	29.7	30.7
LIs	18.3	22.6	16.4	15.7	15.4	14.7	n/a	n/a	n/a	n/a
GIs	4.7	4.7	4.8	4.6	4.3	n/a	n/a	n/a	n/a	n/a
Capital Adequacy (%)										
DTI (CAR)	14.2	14.3	14.1	13.8	14.2	14.2	14.9	14.5	14.6	14.3
SDs (CAR)	21.4	21.4	22.3	19.9	21.9	21.0	21.2	20.5	21.2	N/a
LIs (MCSSR)	211.1	212.8	232.8	254.4	270.7	273.3	n/a	n/a	n/a	n/a
GIs (MCT)	281.9	276.3	268.9	296.7	304.5	221.1	n/a	n/a	n/a	n/a
ROA (%)										
DTI	0.3	(0.0)	0.5	0.5	0.4	0.4	0.4	0.6	0.8	0.4
SDs	0.3	0.2	0.4	0.1	0.2	0.2	0.2	0.04	n/a	n/a
LIs	2.3	1.7	2.8	2.1	2.4	n/a	n/a	n/a	n/a	n/a
GIs	0.5	(0.1)	(0.2)	0.3	0.6	n/a	n/a	n/a	n/a	n/a
Liquidity (%)										
DTIs Liquidity Coverage Ratio (LCR)	260.2	231.0	211.6	199.3	339.8	308.8	296.5	276.3	285.4	231.9
DTIs (liquid assets to short-term liabilities)	27.8	29.5	30.2	29.6	27.5	26.3	30.7	27.1	26.6	26.4
SDs (liquid assets to short-term liabilities)	18.2	17.3	16.4	16.9	16.5	17.0	16.6	17.7	n/a	n/a
LIs (liquid assets to total liabilities)	24.9	22.7	24.2	24.8	30.4	n/a	n/a	n/a	n/a	n/a
GIs (liquid assets to total liabilities)	67.8	69.4	69.6	66.6	70.2	n/a	n/a	n/a	n/a	n/a
Non-Performing Loans to Total Loans (%)										
DTIs	2.9	2.8	2.7	2.5	2.5	2.4	2.5	2.5	2.5	2.3
SDs	0.8	0.6	0.9	0.7	0.7	0.9	1.0	2.0	3.0	4.0
Past Due Loans to Total Loans (%)										
DTIs	2.58	3.03	2.69	2.97	2.99	2.48	3.50	2.80	3.13	2.96

Source: Bank of Jamaica and Financial Services Commission

Chart 1.0 Evolution of risk exposure indicators[23]



Risk exposure indicators:

- Credit Risk - NPLs/Loans (SDs); 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

[23] The cobweb diagram is a graphical representation of financial stability. Each ray represents a key risk or condition. The centre band is the median ranking for each dimension and represents a normal level of risk. Movements away from the centre of the diagram represent an increase in financial stability risks. It is computed by: firstly, calculating weighted average of z-scores of each indicator in the dimensions. Secondly, converting the weighted standardized indicator indicators into empirical cumulative probability distributions. This is done by ordering the weighted z-scores for each dimension from lowest to highest. Finally, convert these cumulative probability scores into ordinal rankings on a scale of 1 - 9 based on the percentiles of the empirical cumulative probability distributions.

Chart 2.0 Network Metrics for the Interbank Gross Funding Network[24]

J$ Billions	Mar-23	Jun-23	Sep-23	Dec-23
Total System Funding to Exposure	315.5	283.1	462.9	455.5
Network Metrics				
Network Mean	0.7	0.6	1.0	1.0
Reciprocity[25] (%)	51.7	46.4	59.7	58.4
Density[26] (%)	31.0	27.1	29.0	29.7
Systemic Risk Score[27]	5.4	4.7	4.7	5.3
Fragility Score[28]	16.0	14.9	16.3	16.9
Diameter[29]	4	6	6	5

Source: Bank of Jamaica

Note: The significant increase in total funding exposure for September and December 2023 was due to increased exposure by one DTI due to securitisation exercises with foreign entities.

[24] Network Metrics are based on interbank gross "funding to" data of domestic DTIs, securities dealers and foreign institutions.

[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] The systemic risk score quantifies systemic risk in the financial system by combining each institution's contribution to interbank network risk for a specific period weighted by its overall ranking in the financial system. This score excludes foreign institution relationships.

[28] 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.

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