

Bank of Mauritius

FINANCIAL STABILITY REPORT

JUNE 2023

Financial Stability Report June 2023

The Bank of Mauritius (hereafter referred to as the "Bank") is issuing the first edition of its Financial Stability Report for 2023, covering the second half of 2022, unless otherwise stated.

This Report is published pursuant to section 33(2)(b) of the Bank of Mauritius Act which stipulates that the Bank shall publish at least twice a year a report on financial stability. The Report includes a review of financial stability and an assessment of policies of the Bank in relation thereto.

In line with its mandate to ensure the stability and soundness of the financial system of Mauritius in terms of section 4(2)(b) of the Bank of Mauritius Act, the Bank makes an overall assessment in this report of the risks that can threaten the stability of the financial system and the measures taken to mitigate these risks. It evaluates the resilience of the system to the risks, as a stable and sound financial system is a prerequisite for financial intermediation in the economy and for creating conducive conditions for economic and financial development.

This Report is available on the Bank's website at <u>https://www.bom.mu/publications-and-statistics/publications/financial-stability-report</u>.

The Bank welcomes feedback from readers. Comments and suggestions should be forwarded to <u>communications@bom.mu</u>.

Use of this Report or contents thereof for educational and non-commercial purposes is permitted, subject to acknowledgement.

Financial Stability Report June 2023 © Bank of Mauritius 2023 ISSN 1694-2353



Contents

EXECUTIVE SUMMARY	I
Global developments	i
Domestic developments	ii
1. MACROFINANCIAL ENVIRONMENT	1
Global economic and financial conditions remained vulnerable	1
Volatile global financial markets	2
Upbeat domestic conditions amid elevated risks to financial stability	4
Stock market less volatile	5
Foreign exchange market picked up momentum	7
Normalisation of monetary policy pursued	8
International reserves adequate	
Systemic risk increased as financial conditions tightened	11
Box 1 – A New Systemic Risk Indicator	13
2. FINANCIAL SOUNDNESS OF HOUSEHOLDS AND CORPORATES	17
Bank credit to private sector continued its expansion	18
Household credit grew further amid elevated risks	18
Housing loan maintained its growth trajectory despite rising interest rate	19
Asset quality of the household sector continued to improve	21
Key ratios on household indebtedness improved	22
Household credit-to-GDP gap went into negative territory	23
Household debt servicing capacity supported by economic expansion	24
Accumulated household deposits upheld household sector resilience	25
Risks from the household sector went up but remained broadly moderate	26
Risks in the corporate sector remained subdued	27
Corporate credit quality improved	28
Credit to commercial real estate sector slowed	29
Corporate credit to GDP gap signalled subsiding risk	
Deposit dynamics of the household and corporate sectors	31
Purchases of FX by households moderated	32
Corporates held more FX deposit than pre-pandemic level	33
Growth of FX deposits decelerated as FX conditions improved	34
Box 2 – Micro-level assessment of the household sector	36
Box 3 – The Mauritius Investment Corporation Ltd and financial stability	40
3. FINANCIAL SOUNDNESS OF DEPOSIT-TAKING INSTITUTIONS	42
No change in the structure of deposit-taking financial sector	42
Strong banking sector balance sheet and increased confidence	43

Balance sheet resilient to interest rate risk	46
Robust capital buffers	47
Sustained improvement of asset quality	
Rising profitability	
Sufficient liquidity buffers	
Credit concentration and FX exposures within prescribed limits	
Cross-border exposures expanded further	
Improved Banking Stability Indicator	56
Non-Bank Deposit-Taking sector remained sound	57
Financial Soundness Indicators improved	59
4. NON-BANK FINANCIAL SERVICES SECTOR	64
Life insurance industry performed better	65
General insurance industry expanded steadily	68
Pension scheme industry retracted further	70
5. GLOBAL BUSINESS SECTOR	72
Global Business activities picked up momentum	73
Risks from the GB sector were contained	74
Rise in live GBCs	75
Investment flows subdued amid global uncertainties	77
Strong connection between the banking system and the GB sector	78
GBC deposits resumed its long-term upward trend	79
6. STRESS TESTING THE MAURITIAN BANKING SECTOR	84
Stress test results	85
Macroeconomic scenario analysis	86
Interest rate and exchange rate shocks	
Sensitivity analysis	89
Sectoral credit risk	
Credit concentration sensitivity	
Liquidity risk	
Reverse stress test	94
ANNEX A: FINANCIAL SOUNDNESS INDICATORS	95
LIST OF CHARTS	97
LIST OF TABLES AND BOXES	
LIST OF ACRONYMS	102
GLOSSARY	103

Executive summary

Global developments

Global economic and financial conditions deteriorated during the second semester of 2022. The key driving factors were high inflation, rising interest rates and a slowdown in global economic activities. Inflation attained decades high in many countries, leaving central banks in both advanced economies and emerging markets with no other option than to pursue a restrictive monetary policy stance. Aggressive hikes in interest rates across economies led to tighter financial conditions, which heightened market volatility and dampened global economic prospects.

Risks to global financial stability remained elevated. Risks drivers were primarily the high level of uncertainty that began with geopolitical tensions in the first quarter of 2022 and the subsequent emergence of stresses in financial markets. Investors' risk aversion amid rising interest rates had resulted in widespread repricing of assets across markets. Volatility surged in equity, bond, and foreign currency markets. Market sentiment stayed fragile, with concerns that tense financial conditions could be a harbinger of systemic strains that would test the resilience of the global financial system. In early 2023, tighter financial conditions contributed to the banking sector turmoil in the United States (US). This development served as a clear example of potential repercussions to be expected from pre-existing as well as the build-up of vulnerabilities.

The rapid pace of monetary policy tightening in advanced economies had also induced capital outflows from emerging markets. This led to significant weakening of some of the currencies of emerging market economies. Concurrently, shifting patterns of deposits across different institutions raised funding costs for banks, hampering their ability to ensure sustained flow of credit to the economy.

With persistent uncertainties clouding the global economic and financial outlook, risks have on balance worsened. Expectations of lower growth and inflation staying above the targets set by central banks prevailed in the market. In its April 2023 World Economic Outlook (WEO), the International Monetary Fund (IMF) estimated global growth to decline from 3.4 per cent in 2022 to 2.8 per cent in 2023. Global inflation is projected to drop from 8.7 per cent in 2022 to 7.0 per cent in 2023 due to falling commodity prices, but was still expected to remain above pre-pandemic levels. Inflation is not expected to return to target before 2025 in most cases.

Overall, high inflation, rising interest rates, asset price volatility, and an exceptionally uncertain outlook for global economic, geopolitical and financial conditions adversely affected



sovereign, corporate, and household borrowers. Altogether these factors heightened systemic risks to financial stability. Looking forward, prolonged and tighter global financial conditions could spur debt distress. In the event that financial strains intensify and threaten the financial system, the trade-off between inflation and financial stability objectives could amplify.

Domestic developments

The domestic economy gained further momentum in the second half of 2022, with key sectors of the economy registering notable growth. The annual real growth of quarterly Gross Domestic Product (GDP) reached 8.3 per cent in both the third and fourth quarters of 2022. The real economic growth rate for 2022 was estimated at 8.9 per cent. Growth dynamics were mainly driven by the export sector, with the tourism industry propping up economic activity as tourist arrivals attained 997,290 for 2022 – broadly meeting the one million target set by the authorities.

The buoyancy in the tourism sector, along with robust growth in other sectors such as manufacturing and financial services, spawned favourable conditions for other key sectors of the economy. In addition, the '*Financial and insurance activities*' sector continued to benefit from the reputational advantage gained with the exit of the jurisdiction from the Financial Action Task Force (FATF) list of countries under enhanced monitoring, the United Kingdom's (UK) and the European Union's (EU) lists of high-risk countries.

Robust economic growth led to a drop in the unemployment rate to 6.8 per cent in the last quarter of 2022, from 8.1 per cent in the second quarter of 2022. Concurrently, there was a rise in nominal wages, with the index for wage rate attaining a peak in December 2022. These significant developments supported the household sector, in particular against high inflation and rising interest rates that drove up debt servicing costs.

The Monetary Policy Committee (MPC) pursued the normalisation of monetary policy during the second semester of 2022 to curb inflationary pressures and anchor inflation expectations. Inflation had risen to 10.8 per cent in December, from 8.0 per cent in June 2022. The MPC hiked the policy interest rate by a cumulative 225 basis points to 4.50 per cent by the end of December 2022. Market interest rates adjusted accordingly, with both savings and lending rates going up.

The increase in interest rates coupled with lingering high inflation contributed to maintain risk to financial stability at an elevated level, particularly from the household sector. The rise in cost of living and heavier debt servicing burden strained household finances, although pronounced signs of financial distress in the sector did not emerge. The strong economic recovery and improvements in labour market conditions contributed to curb risks to financial stability. Of note, the quality of the asset portfolio of the household sector even improved, as shown by the decline in the ratio of non-performing loans (NPLs) for household sector.

Moreover, some key debt ratios for the household sector improved further, even though household debt continued to rise in nominal terms. Household indebtedness – comprising household debt with banks, non-bank deposit-taking institutions (NBDTI), insurance and leasing companies – declined to 36.5 per cent of GDP and to 98.5 per cent of household income in December 2022. The key ratios used to assess debt servicing capacity of the household sector were comparable with pre-pandemic period and in some cases even better. However, high interest rates could exacerbate pressures on vulnerable households – in particular, those households having high debt service-to-income ratios and those at the lower rung of the income ladder.

Risks from the corporate sector remained moderate on the back of improving dynamics across key sectors of the economy, supporting the financial soundness of corporate entities. Notwithstanding soaring operational costs associated with high inflation and rising interest rates, the pick-up in demand in the economy bolstered corporate earnings. Consequently, the quality of the domestic corporate credit portfolio of banks – for key sectors like '*Agriculture and Fishing*', '*Manufacturing*', '*Construction*' and '*Traders*' – were positively impacted and the overall NPL ratio dropped to 5.2 per cent in December 2022.

The domestic stock market was not spared from the global trend of diversification away from emerging markets. Net disinvestments by non-residents reached Rs803 million in the second half of 2022, higher than the Rs376 million registered in the first semester of 2022. This outflow added some pressure on the foreign exchange (FX) market.

Still, conditions in the FX market improved further during the second semester of 2022, underpinned by ongoing economic recovery and strong performance of the export sector, in particular the tourism and manufacturing sectors. The FX turnover rose to US\$5.3 billion in the second half of 2022, compared to US\$4.5 billion in the first half. Notwithstanding the boost in FX turnover, the Bank conducted three large FX interventions of US\$100 million each in November 2022 to safeguard stability on the FX market and ultimately financial stability.

Buoyancy on the FX market alleviated risks to financial stability, as exchange rate pressures receded compared to previous periods. From a financial stability perspective, volatility in the FX market can amplify vulnerabilities in the banking system through various channels such as the exchange rate and financial conditions. As FX pressures diminished and the interest rate

differential narrowed in the second half of 2022, risks to financial stability arising from the FX market remained contained.

The country maintained adequate buffer of FX reserves to cushion the impact of possible external shocks. The Gross Official International Reserve (GOIR) remained relatively stable at US\$7.8 billion as at end-December 2022 compared to USD\$7.6 billion as at end-June 2022. The GOIR satisfied conventional and stringent reserve adequacy measures, with the exception of the short-term external debt to GOIR metric. As short-term external debt includes FX deposits held by non-residents with banks and given the banking business models favouring expansion of cross-border banking activities, the rise in short-term external debt is inevitable and bound to be sustained. However, the FX risk is well managed by banks in line with the prudential regulations complemented by banks' internal liquidity risk management frameworks.

The expansion of the banking sector continued relentlessly, driven by both domestic and cross-border banking activities. Total banking assets grew at an annual rate of 8.3 per cent in December 2022 to reach Rs2.2 trillion. The banking sector was adequately capitalised with an aggregate capital adequacy ratio (CAR) of 19.5 per cent as at end December 2022. The Banking Stability Indicator has improved steadily, even outperforming pre-pandemic trends on the back of better scores in terms of asset quality, profitability and efficiency. Thus, the banking sector maintained its robustness in the second half of 2022, based on the assessment of financial soundness, asset quality, profitability, liquidity and efficiency.

The flow of credit to the private sector was well supported by the banking sector. Credit to the corporate sector expanded in the second semester of 2022, after having contracted in preceding quarters. Household credit growth rose further to reach a 9-year high in December 2022. Improving economic activity and labour market conditions bolstered the growth in household credit, particularly housing credit. Nonetheless, the pace of housing loan growth and elevated debt levels have amplified vulnerabilities in the banking system.

The NBDTI sector expanded further with sound capital levels and lower NPL ratio. The aggregate CAR for the sector rose to 52.5 per cent and its NPL ratio improved to 5.0 per cent as at end-December 2022. Concurrently, the asset base of NBDTIs expanded further with aggregate assets growing at an annual rate of 3.1 per cent to Rs69.1 billion as at end-December 2022.

Likewise, the non-bank financial services sector demonstrated sustained progress and resilience. Gross premium collected by the insurance industry maintained its upward

momentum. The insurance industry also benefitted from the rising interest rate environment amidst the growing propensity of life insurers to deploy funds towards investments in debt securities. On the other hand, the sluggish financial markets performance contributed to a declining trend in the value of assets of pension funds given the large share of equity investments. The NBDTI sector were expected to weather potential headwinds ahead as several financial indicators remained sound.

The Global Business (GB) sector expanded further, despite global uncertainties and lingering geopolitical tensions. There was a rise in the issuance of new Global Business Corporation (GBC) licenses. The aggregate assets of the GB sector attained an all all-time high of US\$718 billion in December 2022. The increase noted in GBC deposits is testimony of the trust in the Mauritian International Financial Centre (MIFC).

In terms of risk to financial stability, GBC deposits continued to remain a particularly concentrated and volatile source of FX funding for the banking sector. Likewise, NPLs for the sector represented a substantial part of the total impaired credit of the banking sector. Key risks to financial stability from developments in the GB sector, however, remained well contained on the back of stringent risk management practices adopted by banks.

The banking system was resilient to various stress tests scenarios. The results showed that the banking sector would broadly stay resilient even to severe financial strains, continuing to ensure adequate flow of credit to the economy and processing financial transactions. Banks maintained particularly robust capital and liquidity buffers to weather possible major downturns in economic and financial conditions. A few banks displayed weaknesses to certain specific shocks, particularly under the harshest and less plausible scenarios. But the gap between the regulatory limits and the stress tests outcomes was lower. As the domestic economy is firmly set on its growth path, banks will continue consolidating financial buffers to cushion risks to financial stability.

The Systemic Risk Indicator (SRI) flagged a marginal uptick in systemic risk, primarily led by financial market and macrofinancial dynamics. Heightened volatilities in stock markets as a result of tighter financial conditions and vulnerabilities stemming from the sustained rise in private sector credit were the main elements contributing to this uptick.

Risks to financial stability remained elevated in the second half of 2022. Vulnerabilities emerged mainly from the household sector in an environment of high inflation and rising interest rates. Risk from the corporate sector was lower, as economic activity intensified and corporate earnings escalated. The domestic macroeconomic and financial environment is not

expected to further raise risks to financial stability during 2023, though risk from external shocks should not be ruled out.

Financial undness of ouseholds

Financial undness of oosit-taking stitutions

Von-bank financial vices sectoi

Global business sector

Stress testing the Mauritian banking sector

1. Macrofinancial environment

Global economic conditions deteriorated in the second semester of 2022 and risk to financial stability intensified. Some of the key factors undermining the global economic environment and contributing to risks to the stability of the global financial system were high inflation, rising interest rates, tighter financial conditions and a slowdown in economic activity coupled with a muted outlook. The sharp rise in interest rates was a source of risk to the global financial system as it amplified vulnerabilities.

On a positive note, the strong domestic economic recovery, propelled by the robust performance of some key sectors, curb risks to financial stability in Mauritius though they remained elevated. Continuous improvement in labour market conditions helped to contain financial strains on the household sector. The FX market benefited from growing inflows. The level of the GOIR remained adequate. The tightening of the monetary policy stance was pursued, leading to a significant rise in interest rates. The Systemic Risk Indicator signalled a marginal increase in systemic risk in the financial system, largely driven by financial market and macrofinancial dynamics.

Global economic and financial conditions remained vulnerable

The global economic environment worsened during the second half of 2022. Tighter financial conditions, rising costs of living and slowdown in major economies shaped the global economic situation towards the end of 2022. Inflation was persistently high, compelling monetary authorities to respond more aggressively than previously anticipated in hiking interest rates to curb inflationary pressures. In its January 2023 WEO Update and its April 2023 WEO, the IMF has estimated global economic growth at 3.4 per cent for 2022. Global growth for 2023 is projected to drop to 2.8 per cent, partly due to monetary policy tightening.

Uncertainties surrounding the Russia-Ukraine war has sustained high food prices worldwide, with severe consequences on economic activity and cost of living. This has created hardships for vulnerable households particularly in low- and middle-income countries, especially after the gradual phasing out of pandemic-related support measures by the fiscal and monetary authorities.

The pace of monetary policy tightening accelerated sharply at the global level. The response by central banks to high and rising inflation was broadly synchronised in the second half of 2022. Many central banks in emerging economies pursued monetary policy tightening as well to prevent a de-anchoring of inflation expectations, in line with interest rate hikes in advanced economies. However, the tightening of financial conditions and rising interest rates potentially gave rise to debt vulnerabilities with ramifications for financial stability.



On the fiscal front, governments were faced with growing debt distress induced by subdued growth levels and higher borrowing costs – especially in emerging economies. The rapid increase in interest rates in advanced economies contributed to a rise in sovereign spreads for some emerging markets and developing economies, putting debt sustainability at risk. This predicament has to some extent constrained the ability of some governments to shield vulnerable households from the impact of high inflation. Moreover, the appreciation of the US dollar against other currencies also compounded sovereign debt vulnerabilities for countries with high US dollar-denominated debt.

Risks to global financial stability remained elevated during the second semester of 2022, induced primarily by tighter financial conditions and a bleak economic outlook. The risks of global debt vulnerabilities materialising increased further. Households were burdened with higher debt servicing costs and erosion of savings, making them more vulnerable to default on their credit obligations. The sharp increase in interest rates also moderated global housing demand, with implications for house prices. As extensively discussed in the IMF's April 2023 Global Financial Stability Report, average house prices fell in 60 per cent of emerging markets during the second half of 2022. The rise in house prices decelerated in advanced economies. The corporate sector exhibited vulnerabilities as earnings were subdued.

Following a period of ample liquidity and low interest rates during the pandemic, tighter monetary policy tested the ability of banks to sustain strains to their loans and securities portfolio. The valuations of asset prices – whether for real property or financial assets – were stretched and could suffer a setback in case of further increases in interest rates. For instance, banks with large share of securities in their portfolio could find themselves vulnerable to a sharp correction in asset prices. In early 2023, the collapse of two US banks were the direct or indirect consequences of rising interest rates. The IMF warned of possible further episodes of financial instability resulting from tighter monetary policy.

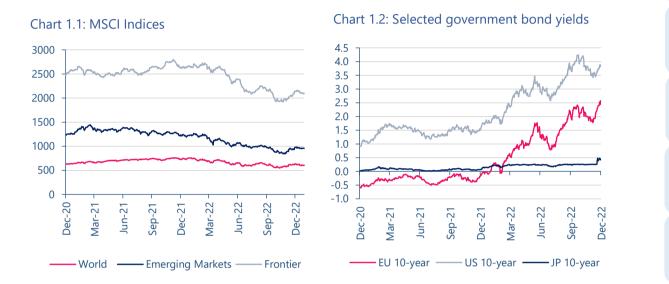
Volatile global financial markets

Financial markets remained volatile during the second half of 2022, amid concerns of a prolonged Russia-Ukraine war. Volatility surged in equity, bond, and foreign currency markets. Equity prices tumbled, driven by ongoing geopolitical uncertainties and signs of persistent inflation. Investors' risk aversion resulted in widespread repricing of assets across markets. The Morgan Stanley Capital International (MSCI) World Index rose by 1.4 per cent while the MSCI Emerging Market Index and the MSCI Frontier Index declined by 4.4 per cent and 1.6 per cent respectively, between end-June 2022 and end-December 2022 (Chart 1.1).



Macrofinancial

Government bond yields maintained a general upward trend in the second half of 2022, reflective of the ongoing aggressive monetary policy tightening by major central banks. The US 10-year yield reached 3.9 per cent in December 2022, from 3.0 per cent in June 2022. Likewise, the EU 10-year yield doubled to reach 2.6 per cent from 1.3 per cent during the same period. However, market anticipation of a significant US economic slowdown in the second half of 2023 triggered an inversion of the yield curve, with the 10-year yields exceeding 2-year yields (Chart 1.2).



Source: Bank of Mauritius

The rise in the US dollar index continued in the third quarter of 2022, but the trend reversed in the last quarter as investors were concerned that rising US interest rates could prompt a recession. The US dollar index was up by 7.1 per cent during the third quarter of 2022 (Chart 1.3). It, however, trended weaker in the last quarter of 2022 to stand at 103.5 at the end of December 2022, lower than the level of 104.7 attained on 30 June 2022, reflecting a mean reversion from the US dollar's outsized gains throughout 2022.







Source: Bank of Mauritius

Upbeat domestic conditions amid elevated risks to financial stability

Domestic economic recovery picked up further speed in the second half of 2022, with most key sectors of the economy registering commendable growths. The annual real growth of quarterly GDP reached 8.3 per cent in both the third and fourth quarters of 2022. On the production side, the tourism, and manufacturing sectors bolstered the growth momentum. On the expenditure side, consumption and external demand continued to support economic growth. The economy is estimated to have expanded by 8.9 per cent in 2022, which was complemented by a drop in the unemployment rate to 6.8 per cent in the last quarter of 2022 from 8.1 per cent in the second quarter of 2022.

The buoyancy in the tourism industry has had positive spill-over effects on the domestic economy. The tourism sector registered strong growth in 2022, with tourist arrivals standing at 997,290 – broadly meeting the one million target set by the authorities. In the same vein, tourism earnings surged, reflecting a significant improvement in the financial soundness of 'Accommodation and food service activities' and related sectors (Chart 1.4).



Contents





Chart 1.4: Tourist arrivals and tourism earnings

Source: Bank of Mauritius

The macrofinancial landscape was shaped by renewed dynamism in the economy, despite high inflation, rising interest rates and a bleak global economic outlook weighing on the domestic economy. The economic and financial environment remained challenging, as the above-mentioned factors could potentially undermine the stability of the financial system.

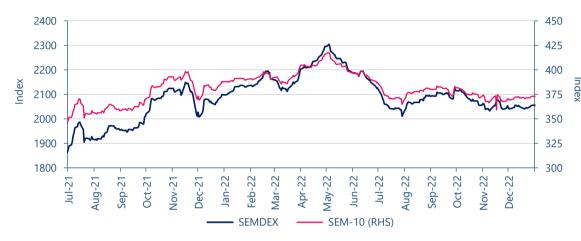
Monetary policy remained focused on fighting inflation. The pursuit of price stability intensified in the second half of 2022. The MPC normalised monetary policy at a faster pace to curb inflationary pressures. Inflation attained 10.8 per cent in December 2022, relative to 8.0 per cent in June 2022. The MPC stood ready to tighten monetary policy further, depending on the evolution of the inflation and the domestic growth outlook.

The economic outlook remained favourable with a projected growth of around 5 per cent for 2023, bolstered by encouraging consumer and business sentiment. Key economic sectors – such as tourism, manufacturing and financial services – were expected to continue expanding despite a weaker global growth outlook. Similarly, labour market conditions were anticipated to improve further on the back of robust economic expansion. In the light of these expected developments, the domestic macroeconomic and financial environment were not expected to induce significant increases in risk to financial stability during 2023, though risk from external shocks could not be ruled out.

Stock market less volatile

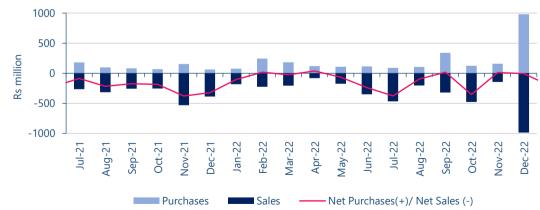
The stock market was less volatile during the second half of 2022, though risk to financial stability remained elevated. Stock market indices enjoyed a bullish trajectory since the end of 2021, fuelled by strong economic recovery, but moderated between May and July 2022

following the rapid interest rate hikes by the US Federal Reserve.¹ The aggressive monetary policy tightening approach by the US Federal Reserve triggered foreign disinvestments from May to July 2022 on the domestic stock market. This subsequently led to lower stock prices across sectors, off-setting most of the gains made since the beginning of 2022, before they stabilised as from August 2022. The SEMDEX closed the year at 2,055 points as compared to 2,127 points as at end-June 2022 (Chart 1.5).





The stock market was not spared from the global diversification trend away from emerging markets. Net disinvestments by non-residents aggregated Rs803 million during the second half of 2022, higher than the net outflows of Rs376 million registered in the first semester of 2022. Moreover, a notable spike in turnover was observed on account of the listing of notes issued by a South African company on the Stock Exchange of Mauritius (SEM) in December 2022 (Chart 1.6).





Source: Stock Exchange of Mauritius

Source: Stock Exchange of Mauritius

¹ The US Federal Reserve increased interest rates by 200 basis points between May and July 2022.

Foreign exchange market picked up momentum

The FX market was more buoyant in the second half of 2022. Total FX turnover rose to US\$5.3 billion during the second semester of 2022, an improvement of 18.8 per cent compared to US\$4.5 billion in the first half of 2022. The boost to FX turnover was spurred by robust performance of the tourism and manufacturing sectors. FX turnover expanded at an annual rate of 24.4 per cent in 2022 relative to 2021, alleviating the build-up of risk from imbalances on the FX market.



Chart 1.7: FX turnover

Source: Bank of Mauritius

The Bank conducted three large FX interventions of US\$100 million each in November 2022 to smoothen out market volatility. The end-of-year FX demand by the 'Wholesale and retail trade' exerted undue pressure and amplified volatility, with an amount of US\$671.3 million sold by banks to that sector in the last quarter of 2022. The Bank sold a total amount of US\$523 million to the market in the second semester of 2022, of which an amount of US\$505 million was sold to banks. It is important to highlight that the State Trading Corporation (STC) had fully sourced its FX requirements from the market during the second half of 2022.² Total FX sales by the Bank amounted to US\$1.0 billion for 2022, significantly lower than the US\$1.5 billion sold in 2021 reflecting improved FX inflows and market dynamics.

From a financial stability standpoint, volatility in the FX market can amplify financial vulnerabilities in the banking system. It has the potential to affect macrofinancial conditions through several channels such as exchange rate and financial conditions. For instance, unfavourable conditions on the market can amplify FX risks to borrowers and weaken their

² The STC, the trading arm of the Government of Mauritius, was set up to import certain essential commodities including all petroleum products and Liquefied Petroleum Gas (LPG) traded in Mauritius.

repayment capacity. As a consequence, banks can suffer from credit losses and ultimately impair their solvency. However, as FX pressures diminished and the interest rate differential narrowed in the second half of 2022, risks to financial stability arising from FX market dynamics remained contained.

As US inflation appeared to have peaked towards the end of 2022, prospects of further aggressive hikes by the US Federal Reserve subsided. As a result, the US dollar depreciated by 1.9 per cent against the Euro in the second semester of 2022. In the same stride, the Rs registered an appreciation of 2.8 per cent against the US\$ during the corresponding period.

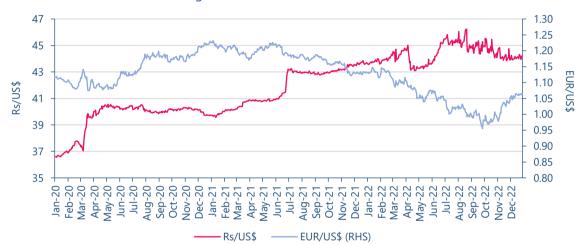


Chart 1.8: Evolution of RS/US\$ selling dealt rate and EUR/US\$

Source: Bank of Mauritius

Normalisation of monetary policy pursued

The MPC pursued the normalisation of monetary policy in the second half of 2022, with three successive policy rate hikes aggregating 225 basis points. The KRR was raised to 4.50 per cent, with a first hike of 75 basis points in September 2022, followed by 100 basis points and 50 basis points increases in November and December 2022, respectively. The implications of monetary policy normalisation on the household and corporate sectors were carefully assessed from a macroprudential perspective, as discussed in the relevant sections of this report.

To improve the effectiveness of and transparency on monetary policy, the Bank introduced a new flexible inflation targeting monetary policy framework in January 2023. The explicit inflation target ranged between 2 and 5 per cent, with a medium-term target of 3.5 per cent. The transparent inflation target reaffirms the price stability commitment of the Bank. The management of excess liquidity was at the discretion of banks. They had access to central bank instruments to deploy any excess liquidity in order to maintain the operational target – the



Contents

Macrofinancial

overnight interbank interest rate - close to the new policy rate, the Key Rate. The new framework is expected to enhance the transmission of monetary policy to the real economy.

As part of the phased introduction of the new framework, the Bank started issuing 7-Day BoM Bills to all banks as from August 2022. A total amount of Rs119.0 billion was issued between 4 August to 31 December 2022. The weighted yield, at 0.66 per cent at the inaugural issue on 4 August 2022, increased to 2.50 per cent at last issue held in December 2022. Effective 16 January 2023, the 7-Day Bank of Mauritius Bill was issued at a fixed rate equal to the Key Rate on full allotment basis. The level of the Key Rate was set at the same level as the Key Repo Rate, that is 4.50 per cent per annum. The MPC would determine the level of the Key Rate to ensure the inflation target is attained over the policy horizon.

The Bank pursued its monetary operations such that the interest rates increases were effectively transmitted to the real economy. In addition to the 7-Day Bills, the Bank continued the issuance of its bills in the 91-Day, 182-Day and 364-Day tenors to primary dealer banks. Total issuance in the three maturities for the six months ended December 2022 amounted to Rs209.5 billion, against maturing securities of Rs228.6 billion, resulting in net maturing of Rs19.1 billion bills. On the other hand, a net issuance of Rs8.6 billion was registered on government securities.

The Bank also mopped up an additional amount of Rs23.0 billion of excess liquidity through FX operations conducted with banks and other market participants. As a result, the Rupee excess liquidity fell to an average of Rs20.5 billion in the second half of 2022, compared to an average of Rs27.5 billion for the first half of 2022.

Market interest rates were adjusted broadly in line with the changes in the KRR. The savings deposits rate went up by 1.5 percentage points while weighted lending rates increased by 2.0 percentage points between the beginning of July to the end of December 2022. Short-term yields also picked up significantly, hovering around the policy rate. The 91-Day yield increased from 1.00 per cent as at end-June 2022 to 4.35 per cent as at end-December 2022. During the same period, the 182-Day yield rose from 1.08 per cent to 4.65 per cent, and the 364-Day yield increased from 1.28 per cent to 4.80 per cent. The overnight interbank rate rose from 0.61 per cent to 4.00 per cent in the second half of 2022.



Contents

Macrofinancial

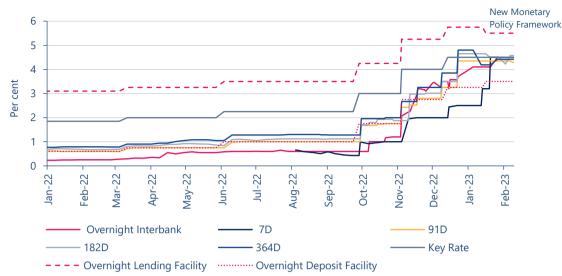


Chart 1.9: Evolution of market interest rates

Source: Bank of Mauritius

International reserves adequate

The level of the international FX reserves rose to US\$7.8 billion as at end-December 2022, from US\$7.6 billion as at end-June 2022, and largely satisfied conventional reserve adequacy measures. The GOIR provided strong buffer to the economy against the risk of external shocks.

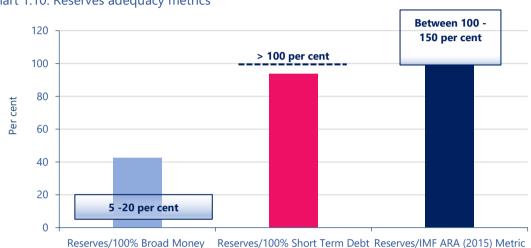
The import cover was 11.6 months, well above the recommended 3 months minimum level. Similarly, the reserves-to-broad money ratio was 42 per cent, exceeding the recommended 5-20 per cent range of the IMF. However, the ratio of the GOIR to short-term external debt showed some weakness, standing at 94 per cent below the 100 per cent minimum threshold (Greenspan-Guidotti rule). This essentially reflected a significant rise in short-term external debt, triggered by a surge in non-resident transferable FX deposits held with banks.³

Short-term external debt includes FX deposits by held by non-residents with banks. Given the banking business models favouring expansion of cross-border banking activities, the rise in short-term external debt is inevitable and bound to continue. However, the FX risk is well managed by banks in line with the prudential regulations complemented by banks' internal liquidity risk management frameworks.

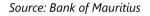
The Bank also uses the IMF Assessing Reserve Adequacy (ARA) methodology for a more stringent assessment of the adequacy its reserves to withstand potential adverse external

³ Non-resident deposits of up to one year accounted for around 95 per cent of the total short-term external debt of the country as at end-December 2022.

shocks to the balance of payments.^{4,5} The ARA factors in several economic variables, namely exports of goods and services, short-term external debt, broad money liabilities, non-GBC portfolio and other investment liabilities position, as well as deposits of non-DSIB GBCs. The ratio of the GOIR to the ARA metric was estimated at 100 per cent as at end-December 2022, within the desired range of the IMF's recommended threshold of 100 to 150 per cent (Chart 1.10).







Systemic risk increased as financial conditions tightened

The SRI signalled a marginal uptick in systemic risk during the second half of 2022 (Chart 1.11).⁶ This rise in the SRI was primarily led by financial market and macrofinancial dynamics. In particular, the tightening of financial conditions along with greater volatility on the stock market led to the pick-up in risk.

On the macrofinancial front, the SRI was driven by the sustained increase in credit to private sector, suggesting an increase in broad-based indebtedness which represented a source of vulnerability to the banking system. Concurrently, risks from macroeconomic factors rose marginally mirroring uncertainties in the current economic environment amidst lingering

⁴ Mauritius: Staff Report for the 2021 Article IV Consultation

⁽https://www.imf.org/en/Publications/CR/Issues/2021/06/28/Mauritius-2021-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-461296)

⁵ IMF Policy Paper, Assessing Reserve Adequacy--Specific Proposals (<u>https://www.imf.org/-/media/Files/Publications/CR/2019/1MUSEA2019001.ashx</u>).

⁶ The SRI gives an indication of an overall assessment of changes in the underlying systemic risk indicators relevant to the macro stability of the banking sector. It covers the period from the first quarter of 2009 to last quarter of 2022. As the indicators move further from the centre (i.e., approach a score of 1), the level of risk increases.

inflation. In contrast, risks arising from external factors retreated as the FX market became more buoyant and the current account deficit improved.

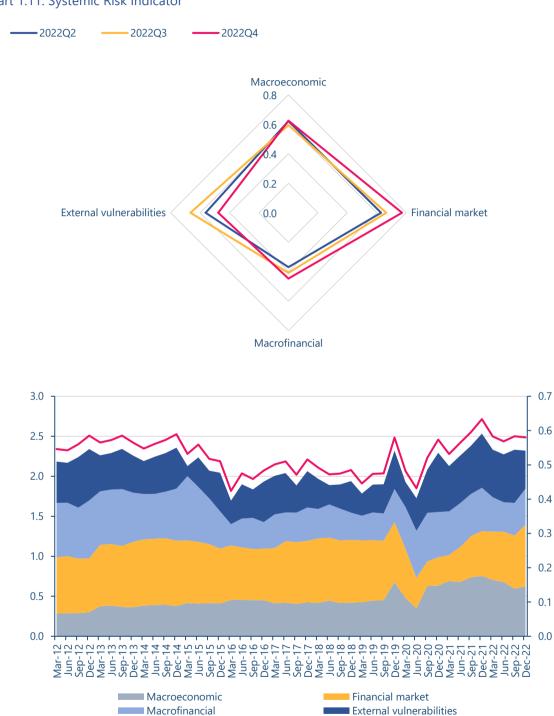


Chart 1.11: Systemic Risk Indicator

Source: Bank of Mauritius

SRI (RHS)

onment Contents

inancial ndness of useholds corporates

Financial oundness of sposit-taking nstitutions

Global iness sect

Box 1 – A New Systemic Risk Indicator

The banking and financial system has an important role to play in the economy and the central bank is mandated to ensure that the system operates seamlessly to support economic activity and growth. Tensions arising from within or outside the financial system can, however, prevent it from delivering its functions effectively to the economy, which includes accepting deposits, granting loans, facilitating and processing payments and transfers and so forth. It is, therefore, critical for the central bank to have the necessary framework and tools to assess and monitor risks to the stability of the financial system, along with the appropriate toolkits to respond promptly to vulnerabilities and risks. A stable financial system is deemed resilient to shocks and can continue fulfilling its functions even under stressed situations.

The assessment and monitoring of systemic risk – which can arise in one part of the financial industry and spread to the whole system – has gained prominence since the global financial crisis (GFC) in 2008. The GFC uncovered how strains and losses in some segments of the financial industry could be amplified and transmitted rapidly to other segments and to financial markets. It showed that financial distress can have system-wide consequences on financial intermediation, access to liquidity, monetary policy effectiveness, capital flows, FX markets and stock markets amongst others.

Since the GFC, financial sector regulators have developed various toolkits to identify, monitor and respond to threats from and to the financial system in a pre-emptive manner. Growing interconnectedness among financial institutions as well as the globalisation and digitalisation of financial services have lifted the degree of vulnerabilities in the financial system. Disruptions from the Covid-19 pandemic and the Russia-Ukraine war have also raised new challenges, in relation to systemic risk in particular.

An important barometer used by financial sector regulators is the SRI. The SRI assesses risks and vulnerabilities from various segments of the economy and markets that are critical for the stability of the financial system. The indicator is widely deployed by central banks to gauge the build-up of vulnerabilities and risks and to guide policy responses. The SRI may also be used as an early warning signal of the extent and direction of systemic risk in a financial system.



Macrofinancial environment

International practice

There is no prescribed standard indicator(s) or model to measure systemic risk. Policymakers rely on a wide range of measures that capture specificities of the economic and financial systems to assess multiple types of stresses and the transmission mechanisms that may impair the stability of a financial system. The SRI framework varies across jurisdictions based on the distinct features of each financial system. But there are some common elements as well. The regular systemic risk measures used include the z-score type model, Delta CoVaR, Marginal Expected Shortfall (MES), SRISK, and the Monte-Carlo framework.

Current SRI used by the Bank

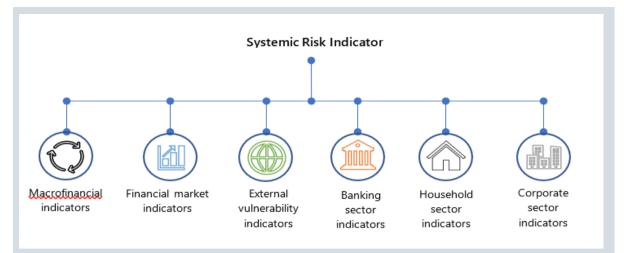
The Bank had developed an SRI internally in 2018 to measure the magnitude and direction of systemic risk in the financial system. The existing SRI tracks risks and vulnerabilities through four main channels: namely, macroeconomic indicators, financial market indicators, macrofinancial indicators and external vulnerability indicators. The Bank has since been using this indicator, which it regularly publishes in its Financial Stability Reports, as an important toolkit for monitoring systemic risk.

An upgraded SRI

The dynamic economic and financial landscape of Mauritius prompted a review of this important tool used for monitoring systemic risk. The SRI toolkit has been reviewed and updated in line with the methodology adopted by several leading central banks. The new SRI has been designed and constructed to capture and track the sources of risks – such as economic sectors, markets, and external causes – as well as the degree of vulnerabilities and risks from each source. The new SRI is part of the upgraded macroprudential policy framework that the Bank has been deploying. It will enhance the capacity of the Bank to identify and monitor existing and emerging risks to financial stability proactively.

The new indicator comprises the six core elements and sources of systemic risk: namely, the banking sector, the household sector, the corporate sector indicator, financial markets, macrofinancial indicators, and external component. The figure below illustrates the structure of the new SRI.





Systemic Risk Indicator

d

The aim of the new SRI is to construct a single indicator that reflects the degree of and trend in systemic risk in the financial system of Mauritius. Systemic risk can build up from a myriad of sources via a variety of channels over time. As a result, the monitoring of systemic risk requires a multi-faceted approach encompassing a wide range of indicators that cover key economic sectors, markets and external causes. The SRI can also provide a forward-looking dimension to systemic risk.

Macrofinancial indicators

System-wide distresses can arise from financial imbalances that build up due to macroeconomic conditions, such as periods of strong economic growth, low inflation and interest rates. It is, therefore, essential to encapsulate macrofinancial indicators in the SRI to capture any build-up of vulnerabilities arising from macrofinancial dynamics. The selected parameters evaluate the interactions among macroeconomic and financial sector variables as well as potential macroeconomic sources of vulnerabilities for the financial sector.

Financial market indicators

Financial markets play an important role in the financial system. They can trigger risks and amplify vulnerabilities as financial and non-financial entities interact on financial markets. The deeper the financial market, the more exposed the financial system is to excessive leverage – such as from the corporate sector. Strains in financial markets can be translated into, inter alia, movements of stock market indices and impact the readiness of investors to hold risky assets.

External vulnerability indicators

Mauritius as a small open economy is highly exposed to adverse developments abroad which can increase the vulnerability of the banking and financial system to external shocks, especially in view of its status as an International Financial Centre. From a banking sector perspective, around 50 per cent of loans extended by banks in Mauritius are destined to non-residents. Moreover, economic downturns in key markets – such as Europe – directly impact the tourism and manufacturing sectors which can destabilise FX flows. As such, weak global economic conditions can have important ramifications on the banking system, should buffers to shield the economy be weak.



Banking sector indicators

The size of the banking sector is consequential given the share of banking sector assets to GDP standing at 389 per cent as at end-December 2022. The banking sector is, thus, an important source of systemic risk given its linkages within the financial system and the real economy. It is crucial to measure risks arising from the banking sector from both the structural and cyclical dimension – such as liquidity, funding and solvency.

Household sector indicators

The household sector can be an important source and amplifier of risk in the financial system. For instance, household debt accumulation and debt service capacity can magnify vulnerabilities in the banking system, such as in times of rising interest rates. A sharp increase in household indebtedness has often preceded a rise in risks to financial stability. The variables used to measure risks for this sub indicator comprises household debt and income, debt to GDP gap and debt servicing.

Corporate sector indicators

The corporate sector has a critical importance in the economy. It employs a large share of the labour force whilst contributing to economic activity. High indebtedness of corporates represents a source of risk to the financial system. An endogenous or exogenous shock to the corporate sector can have important effects on the financial system. The main elements used in this sub indicator consist of corporate credit to GDP gap, bank exposure to commercial real estate and FX credit exposure.

Comparison between Existing SRI and New SRI

The new SRI will be published as from the next edition of the FSR. For comparison purposes, the results from the current and the new SRI are depicted in Chart I. A comparative analysis of the new and existing SRIs revealed a more dynamic new SRI as it is based on a larger set of indicators which provide a clearer picture on the evolution of systemic risk. Generally, the two SRIs denote similar direction of risk except on a few occasions.







2. Financial soundness of households and corporates

The household and corporate sectors remained resilient to difficult economic and financial conditions that prevailed in the second half of 2022. The tightening of financial conditions – particularly from rising interest rates – and high inflation maintained risks to financial stability at an elevated level. Risks from the household sector were relatively higher than from the corporate sector. Rising cost of living coupled with higher debt servicing costs stretched household finances, in particular vulnerable households, but there were no signs of widespread financial distress in the household sector as existing macroprudential limits curtailed sector-wide strains. Rapid housing loan growth has raised risk in the banking system though, as the procyclical feedback between housing loan growth and residential property prices could expose the financial system to systemic risk. On the other hand, conditions in the corporate sector continued to improve bolstered by strong economic performance and sustained the financial soundness of the sector. The resilience of the household and corporate sectors would largely depend on the pace of monetary policy tightening, inflation developments and economic prospects in 2023.

Threats to financial stability remained elevated in the second half of 2022. The risk from the household sector escalated during the second semester of 2022. In contrast, risks from the corporate sector subsided slightly. The risks did not materialise though, as the economy was on a robust expansion path and the banking sector had strong buffers. The household and corporate sectors showed some resilience to high interest rates and inflation. This is partly reflected by the asset quality of these two sectors in the books of banks, which remained broadly sound as the ratio of non-performing loans to the credit portfolio even declined further.

The banking sector can be confronted to system-wide structural and cyclical shocks that can emerge from the household and corporate sectors. Structural vulnerabilities would result from common exposures of individual institutions to specific risks or interconnectedness of financial institutions with each other. On the other hand, cyclical vulnerabilities could stem from the build-up of macrofinancial imbalances over time, which may arise from loose financial conditions and buoyant asset prices. These two dimensions of systemic risk are not mutually exclusive and can materialise independently or at the same time.

The rapid growth of housing loans in the past few years had led to rising household debt levels, causing structural and cyclical vulnerabilities in the financial system to rise to some extent. However, the macroprudential policies currently in place as well as internal credit policies of banks have upheld banks' resilience, as evidenced by the results of the stress testing Contents



Financial oundness of nouseholds d corporates

Financial bundness of posit-taking nstitutions

Non-bank financial rvices secto

exercises presented later in this report. Banks have the capacity to absorb strains from the household and corporate sectors.

Bank credit to private sector continued its expansion

Bank credit to the private sector expanded further in the second semester of 2022, largely driven by household credit. Credit grew at an annual rate of 9.1 per cent as at end-December 2022, from 4.6 per cent as at end-June 2022 (Chart 2.1). Corporate credit contracted further in July and August 2022 – a trend observed in the first semester of 2022 – but picked-up towards the end of the second half of 2022, notably in September, November and December. In contrast, credit dynamics in the household sector maintained a strong upward trajectory in the second half of 2022, notwithstanding rising interest rates and high inflation. Despite the difficult macroeconomic environment, the asset quality of both households and corporates improved during the second semester of 2022.



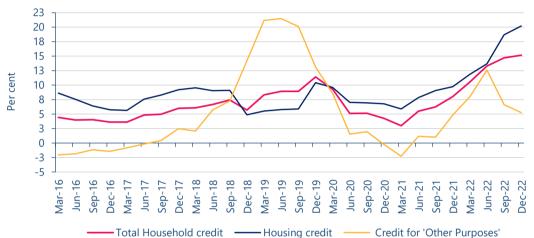
Source: Bank of Mauritius

Household credit grew further amid elevated risks

The momentum in household credit was maintained in the second half of 2022, propelled by robust housing loan growth. Annual household credit growth reached a 9-year high of 15.2 per cent as at end-December 2022 (Chart 2.2). Buoyant household credit was spurred by sustained improvement in economic conditions, with growing income levels and favourable labour market developments.⁷ The 225 basis points increase in the KRR during the second semester of 2022 did not impact household credit demand as a result of sustained consumer confidence, though a deceleration is expected in subsequent quarters.

⁷ The Wage Rate Index, as published by Statistics Mauritius, reached its highest point in December 2022.

Household credit extended for 'other purposes', representing roughly one-third of total credit to households, decelerated in the second half of 2022 relative to housing credit dynamics. The annual growth of credit for 'other purposes' slowed considerably to reach 5.3 per cent in December 2022, from 12.6 per cent as at end-June 2022 (Chart 2.2). Credit for 'other purposes' are mostly in the form of unsecured credit facilities attracting much higher interest rates than housing credit.⁸ The substantial increase in the KRR during the last semester of 2022 had, therefore, the expected regressive effect on consumption credit.





Source: Bank of Mauritius

Housing loan maintained its growth trajectory despite rising interest rate

Demand for housing loans grew further in the second half of 2022. The annual growth of housing loans reached a 10-year peak of 20.2 per cent in December 2022, relative to 13.7 per cent in June (Chart 2.2). This consistent growth was supported by several factors such as savings accumulated by households during the pandemic, higher construction cost, expectations of rising property prices, conducive borrower-based macroprudential limits, additional fiscal incentives in the 2022-2023 Budget and favourable economic prospects.

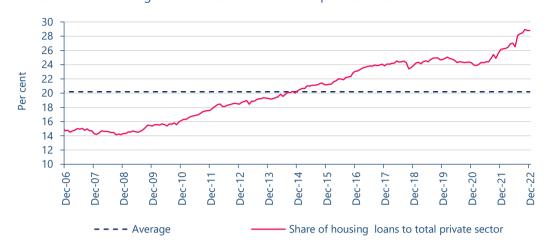
As a consequence of the rapid growth of housing loans, the share of housing loans as a proportion of total credit disbursed by banks to the private sector increased to 28.8 per cent as at end-December 2022, from 26.5 per cent as at end-June 2022 (Chart 2.3). A persistent and continuous rise in the ratio can trigger structural vulnerabilities in the financial system. To guard against such vulnerabilities, the additional sectoral portfolio provision of 0.5 per cent

Macrofinancial environment Contents

Financial soundness of households nd corporates

⁸ Credit extended to households for 'other purposes' includes purchase of other consumer durable goods, purchase of land, purchase of motor vehicles, education purposes, medical purposes, investment purposes, and other unspecified purposes.

for housing credit facilities and 0.75 per cent for household credit facilities are currently in place to uphold the resilience of the banking sector.





From a macroprudential perspective, a rapid growth in housing credit can amplify vulnerabilities stemming from the pro-cyclical feedback between housing loan and house price growth. This could result in overstretched property prices. As a gauge to residential property price movements, it is noteworthy that the Residential Property Price Index rose by 19.4 per cent in 2022 relative to the preceding year.⁹ However, the rise in interest rates in the second half of 2022 – focussed on moderating aggregate demand – is expected to curb housing credit growth in forthcoming quarters. A deceleration in the growth rate was noted in the last quarter of 2022.

The upward cycle of housing loan growth since March 2021 suggests the build-up of cyclical vulnerabilities in the housing sector (Chart 2.2). Still, the median annual growth ranged between 6.9 and 9.2 per cent from December 2019 to December 2022 (Chart 2.4). As per the IMF Staff Guidance Note on Macroprudential Policy (2014), the median annual growth for housing loans in countries which witnessed a banking crisis ranged between 12-15 per cent for the three consecutive years preceding the crisis.¹⁰

Global business sector

Source: Bank of Mauritius

⁹ The Residential Property Price Index (RPPI), published by Statistics Mauritius, is an indicator of how the prices of transacted residential properties (houses and apartments) have evolve over time.

¹⁰ IMF Staff Guidance Note on Macroprudential Policy, 2014, pg 35.

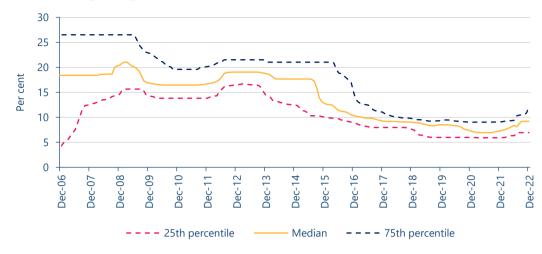


Chart 2.4: Housing loan growth

Source: Bank of Mauritius

Asset quality of the household sector continued to improve

The household sector was resilient to macroeconomic tensions – notably high inflation and interest rates. The NPL ratio for the household sector recorded further improvements, dropping to 2.1 per cent in December 2022 from 2.4 per cent as at end-June 2022. This decline in NPL suggests adequate capacity of the household sector to service debt obligations, despite the unwinding of pandemic-related support measures in June 2022.

The asset quality of the housing loan portfolio displayed a similar resilience, with the NPL ratio falling to 1.6 per cent in December 2022 compared to 1.8 per cent as at end-June. An improvement in the NPL ratio for credit extended to households for *'other purposes'* was also noted. The ratio dropped to 3.3 per cent as at end-December 2022 from 3.4 per cent in June (Chart 2.5).





Source: Bank of Mauritius

Key ratios on household indebtedness improved

Some key debt ratios for the household sector were on a favourable downward trajectory, even though household debt continued to rise in monetary terms. For instance, as a ratio to GDP, total household indebtedness to the financial system – comprising banks, NDBTIs, insurance and leasing companies – has been declining consistently since September 2021 and fell further in December 2022 (Chart 2.6a). Similarly, as a ratio to household income, household debt dropped in December 2022 relative to a year ago.¹¹ This ratio was even below that of December 2019.

Overall, risks to financial stability from the household sector was moderate. The decline in abovementioned ratios implied that the scale of vulnerabilities in the household sector was not as broad based and as challenging as the economic environment tended to depict, despite the rise in cost of living and interest rates. Still, those households that are at the lower rung of the income ladder or heavily indebted would obviously exhibit greater vulnerabilities.

Deposit-taking financial institutions, namely banks and NBDTIs, are the main sources of debt for the household sector, representing Rs195.9 billion as at end-December 2022. The pandemic has changed the dynamics in the household credit market and households have favoured borrowings from banks relative to NBDTIs. Since its onset in March 2020, the share of household debt to banks in total household debt with deposit-taking institutions has gained ground to attain 74.4 per cent in December 2022 relative to 66.0 per cent in December 2019. Concurrently, the share of household credit to NBDTIs shrunk to 25.6 per cent in December 2022, from 34.0 per cent in December 2019.

Taking a wider view of household indebtedness towards the financial sector – which includes banks, NDBTIs, insurance and leasing companies – the ratio of household debt to GDP declined to 36.5 per cent in December 2022, from 37.2 per cent in June (Chart 2.6a). A similar trend could be depicted for the ratio of household debt to income. The ratio of household indebtedness relative to income fell to 98.5 per cent in December 2022, from 98.8 per cent in June 2022.¹²

Household indebtedness to banks, both in nominal terms and as a share of GDP, remained historically high. It reached Rs145.7 billion as at end-December 2022, though as a share of GDP it was unchanged at 25.9 per cent in December 2022 relative to June 2022. Household



of Macrof

Finar soundn housef and corp

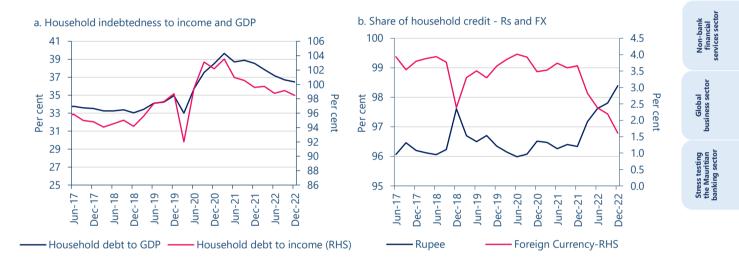
¹¹ Household income is proxied by 'Compensation to employees' published in the national accounts by Statistics Mauritius. Compensation to employees comprises mainly wages and salaries paid in cash and kind.

¹² The proportion of quarterly household expenditure was used as a proxy to estimate the quarterly income level of households.

nominal debt to NBDTIs rose consistently since March 2020 albeit not at the same pace as for the banking sector. However, household indebtedness to NBDTIs relative to GDP revealed a different picture. The ratio fell to 8.9 per cent in December 2022, from 9.5 per cent in June.

The exposure of the household sector to banks was largely in domestic currency, with a negligible share of household debt in FX. The share of household credit denominated in Rupees relative to total household credit increased to 98.4 per cent in December 2022, as compared to 97.6 per cent in June (Chart 2.6b).

Chart 2.6: Indicators of household indebtedness



Source: Bank of Mauritius

Household credit-to-GDP gap went into negative territory

The household credit-to-GDP gap reached negative territory in the second semester of 2022, reflecting moderate risk from relatively high household leverage. The gap maintained a downward trajectory in the second half of 2022, signalling slower household credit growth relative to economic expansion. The household credit-to-GDP gap reached negative 0.2 per cent as at end-December 2022, from 0.2 per cent in June (Chart 2.7).¹³ However, the housing loan-to-GDP gap stayed positive, rising to 0.5 per cent in December from 0.1 per cent in June 2022, indicating risk from the pace of growth of housing loans.

Contents

Macrofinancial

¹³ Credit-to-GDP gap is the percentage deviation between the credit-to-GDP ratio and an estimate of its trend. The trend in the credit-to-GDP ratio is estimated by using the Hodrick Prescott filter.



Dec-20

20

Sep-2

Mar-21

Other purposes

21 21

-un

Sep-

Jec-21 Mar-22 Jun-22 22

Dec-

Sep-



Source: Bank of Mauritius

Jun-17 Sep-17 Dec-17

Mar-17

2.5 2.0

1.5 1.0 0.5 -0.5 -1.0 -1.5 -2.0 -2.5 -3.0

Household debt servicing capacity supported by economic expansion

Household -

Jun-19

Sep-19 Dec-19 Mar-20

- Housing

Jun-18

Sep-18 Dec-18 Mar-19

Mar-18

Successive policy rate hikes in the second semester of 2022 led to elevated market interest rates and translated into a repricing of the cost of household credit from its historically low level. The share of loans contracted in Rupees and on floating rates by households relative to total household loans remained elevated as compared to pre-pandemic levels.¹⁴ The annual debt servicing cost-to-income ratio of households rose to 17.5 per cent as at end-December 2022, from 16.7 per cent in June (Chart 2.8). Despite this consequential rise, the level of the ratio suggests adequate capacity of households to service their credit facilities as the ratio was still within the pre-pandemic range. In addition, nominal income levels of vulnerable households also improved with economic expansion and the fiscal support of Rs1,000 provided to eligible individuals in the Budget 2022-2023.

Debt servicing capacity is an indicator of the resilience of households to service their debt obligations. It is largely influenced by the level of indebtedness, income levels and market interest rates. The combined effects of rising interest rates, high household leverage and elevated cost of living were partly offset by rising nominal wages in the economy, with the wage rate index hitting its highest level in December 2022. Still, the negative factors – in particular, the erosion of real income – could undermine the debt servicing capacity of vulnerable households and lift credit risk in the short term.

lacrofinancial environment Contents

Financial oundness of households id corporate

Financial oundness of sposit-taking institutions

¹⁴ The share of household loans in Rs and on floating rates relative to total household loans stood at 93.7 per cent as at end-December 2022 as compared to 87.5 per cent in December 2019.

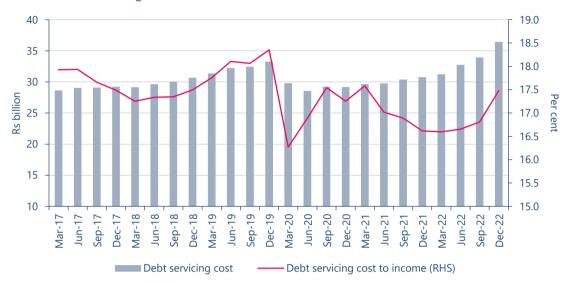
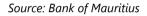


Chart 2.8: Debt servicing cost to income



The household debt service cost-to-GDP ratio, another debt affordability metric, confirmed the ability of households to service their debts. A marginal progression was noted in the ratio during the second semester of 2022, to reach 6.5 per cent in December 2022 from 6.3 per cent in June, still within pre-pandemic levels (Chart 2.9).

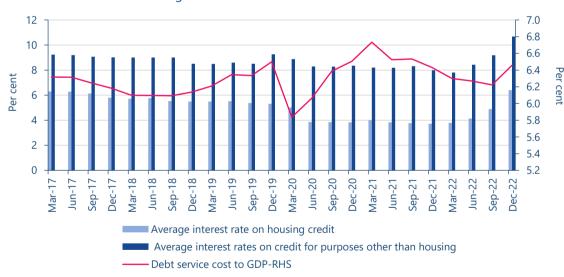


Chart 2.9: Household debt servicing cost and interest rates

Source: Bank of Mauritius

Accumulated household deposits upheld household sector resilience

Households accumulated savings in 2020 following the imposition of pandemic-related restrictions, which stalled consumer expenditure. The quarterly change in aggregate household deposits displays the dynamics of household financial savings over a 12-month

Aacrofinancial environment Contents

Financial oundness of households id corporates

Financial undness of iosit-taking stitutions

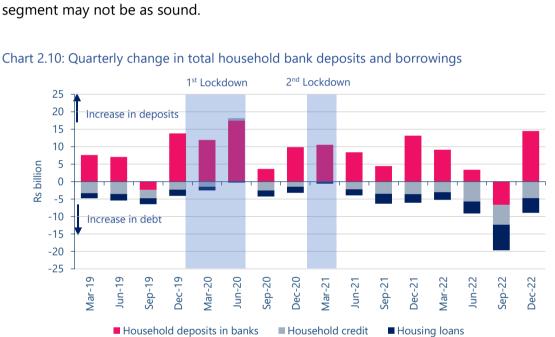
Non-bank financial services sector



26

Contents

Global Stre



period (Chart 2.10). A seasonal spike is noted in December, following the payment of end-ofyear salary bonuses. The accumulation of savings slowed in 2021 and 2022 as pandemic

From a financial stability perspective, the accumulation of savings during the peak of the pandemic supported the resilience of households in servicing their debt obligations. Moreover, accumulated savings induced households to invest in residential properties, although this led to an increase in the level of their indebtedness. Since March 2021, the quarterly change in the accumulation of household debt has maintained a general upward trajectory. The level of aggregate household deposits provided further evidence of the reasonable level of the financial health of the household sector in general, though the health of the vulnerable

Chart 2.10: Quarterly change in total household bank deposits and borrowings

Source: Bank of Mauritius

restrictions were lifted.

Risks from the household sector went up but remained broadly moderate

The risk that vulnerable households defaulted on their debt obligations remained elevated in the second half of 2022. A growing proportion of household income was devoted to servicing debt and sustaining living standards, due to rising inflation and growing debt servicing cost. However, the continuous improvement in labour market conditions supported the financial health of households and contributed towards preventing widespread financial distress in the sector.

From a systemic risk standpoint, cyclical vulnerabilities from the household sector went up in the second half of 2022. Previously accommodative financial conditions and property price expectations coupled with fiscal incentives encouraged households to pursue residential projects which led to rapid housing loan growth. The procyclical feedback between housing loan growth and residential property prices can expose the financial system to systemic risk through overstretched property prices. Of note, residential property prices have gone up significantly in 2022 compared to 2021.

The resilience of the household sector would largely depend on the pace of monetary policy tightening, the inflation trajectory and economic prospects in 2023. The sustained improvement in income has bolstered household finances, though real income has been adversely hit by high inflation.

The elevated risk of financial distress among vulnerable households is not expected to pose a systemic threat to the banking system. Banks apply prudent risk management practices and have robust capital and liquidity buffers to withstand shocks from the household sector. The Bank closely monitors the evolution of risk to the stability of the financial system from the household sector. It stands ready to recalibrate the macroprudential policy toolkit to counter vulnerabilities in the financial system. Of note, a wide range of macroprudential policy tools – such as the Loan-to-Value (LTV) ratio, Debt-Service-to-Income (DSTI) limit, additional provisions – are already in place to safeguard the stability of the banking system.

Risks in the corporate sector remained subdued

Risk to the stability of the financial system from the corporate sector subsided in the second semester of 2022, backed by on-going economic recovery. The good performance of some key economic sectors – namely, '*Accommodation and food service activities*', '*Wholesale & retail trade*' and '*Manufacturing*' – bolstered corporate earnings. Firms and businesses were able to absorb financial strains arising from rising interest rate and high inflation.¹⁵ The corporate sector also reduced its debt obligations to the banking sector in the first few months of the second semester of 2022, though corporate credit picked up towards the end of the semester. The asset quality of the corporate sector in banks' book was broadly robust.

Corporate credit recorded positive annual growth in September, November and December 2022 following a period of continuous contraction in corporate credit during 2022, reflecting favourable business conditions and economic outlook. Bank credit to the corporate sector went up at an annual rate of 5.2 per cent as at end-December 2022, relative to a contraction of 0.4 per cent as at end-June 2022 (Chart 2.12). The growth in corporate credit was primarily led by a surge in loans extended to non-financial sectors: namely, *'Agriculture, Forestry and*

Contents

Macrofinancial environment

ncial ness of eholds

Financial soundness of deposit-taking

Global business sector

Stress testing the Mauritian banking sector

¹⁵ Corporate earnings refer to the estimates for selected domestic large corporates listed on the SEM.

Contents

Macrofinancial environment

Global business sector

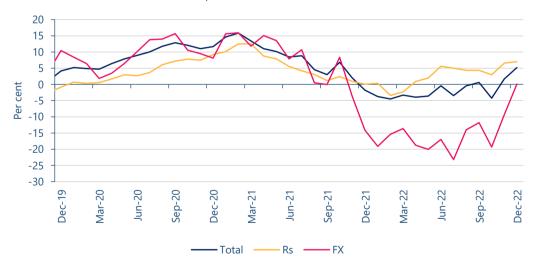
Stress testing the Mauritian banking sector

Shipping', 'Wholesale and retail trade', 'Real estate activities' and 'Professional, scientific and technical activities'. Corporate debt securities held by banks also expanded.

The corporate sector remained the lead beneficiary of credit from the banking sector, with a share of nearly 60 per cent of total bank credit to the private sector. The sectoral concentration of bank credit stayed unchanged as at end-December 2022. The 'Accommodation and food service activities sector', 'Wholesale and retail trade' and 'Real estate activities' sectors were the top three recipients of credit facilities.

The Mauritius Investment Corporation Ltd (MIC) pursued its objective to assist systemically large, important and viable companies. It disbursed a total amount of Rs48.6 billion as at end-December 2022 to the corporate sector. Companies operating in some key sectors of the economy benefited from additional funding from the MIC during the second semester of 2022 notably in the tourism and tourism-related, agricultural and manufacturing sectors.

The exposure of banks to the corporate sector in terms of FX credit facilities dwindled further in the second semester of 2022, except in December. High and rising interest rates on major international currencies was the likely cause. On the other hand, the annual growth of corporate credit denominated in Rs was sustained throughout the second half of 2022.





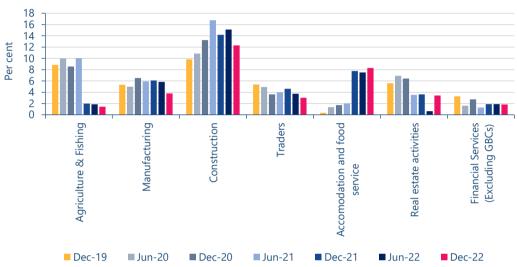
Source: Bank of Mauritius

Corporate credit quality improved

Rising interest rates and higher input costs translated into growing operating costs for the corporate sector, but significant improvement in demand in the economy supported activity in the sector and, thus, earnings. The quality of domestic corporate assets in banks' books were

consequently favourably impacted. The NPL ratio for the sector improved further to reach 5.3 per cent as at end-December 2022, from 6.0 per cent in June.

The credit quality of some key economic sectors improved – such as in '*Agriculture and Fishing*', '*Manufacturing*', '*Construction*' and '*Traders*' (Chart 2.13). However, the asset quality of the '*Real estate activities*' sector worsened, with its NPL ratio rising to 3.4 per cent as at end-December 2022, from 0.6 per cent as at end-June 2022.





Source: Bank of Mauritius

The elevated level of credit impairment in the construction sector is more of an idiosyncratic nature and not a sign of vulnerability in the banking system. The asset quality of the construction sector improved with its NPL ratio dropping to 12.3 per cent as at end-December 2022, from 15.1 per cent in June 2022. The impairment level was primarily driven by four banks. These banks accounted for around 90 per cent of total impairment in the construction sector though their share of the sector's credit portfolio was around 30 per cent.

Credit to commercial real estate sector slowed

Risk to the banking system from commercial real estate exposures moderated further in the second half of 2022. Loans secured by commercial real estate fell at an annual rate of 8.1 per cent to reach Rs39.1 billion as at end-December 2022. Moreover, the share of loans secured by commercial real estate to total corporate credit dropped to 18.7 per cent in December 2022, from 19.2 per cent in June. Macroprudential policy tools – such as higher risk weights and additional provisioning introduced by the Bank since 2013 – are in place to counter any build-up of vulnerabilities arising from the commercial real estate market.



Contents

Macrofinancial environment

Global business sector

Stress testing the Mauritian banking sector The Bank monitors the exposure of banks to the commercial real estate sector as it can become a source of systemic risk. Projects in the sector were mostly funded by bank credit, making the banking system sensitive to corrections in the real estate market. Also, the non-negligible exposure of the banking system to the sector makes it vulnerable to credit losses in case of a decline in commercial property prices. However, given the downtrend in the share of banks' credit exposure to the sector, the risk to the stability of the banking system remained contained.

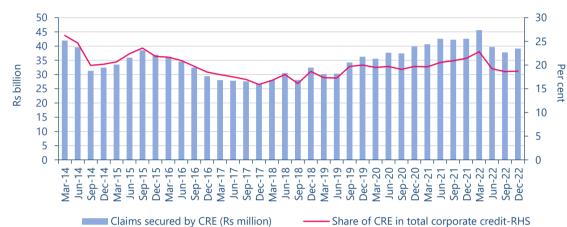


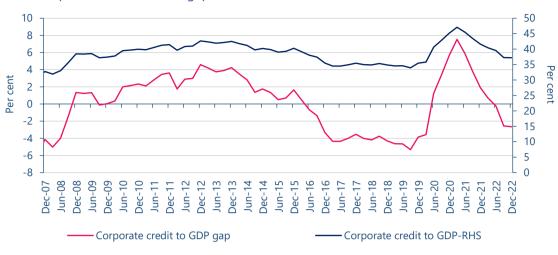
Chart 2.14: Share of claims secured by commercial real estate to total bank credit to the corporate sector

Source: Bank of Mauritius

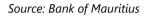
Corporate credit to GDP gap signalled subsiding risk

The ratio of corporate credit to GDP indicated moderation of risk to financial stability from corporate sector indebtedness. The ratio reached its lowest point of 37.2 per cent for the year 2022 in December 2022, after having hovered broadly around past trends in the second semester of 2022. Corporate leverage measures the degree of sectoral vulnerabilities faced by the banking system from potential shocks to the economy. Any excessive lending by banks to the corporate sector could expose the banking system to higher credit risk in case of economic shocks, undermining their capacity to sustain the flow of credit to the economy.

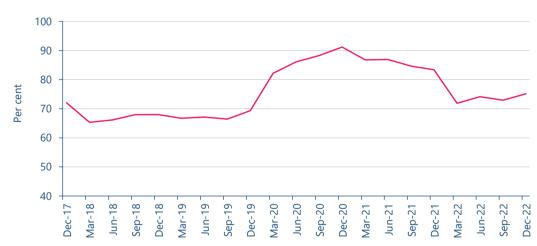
The corporate credit-to-GDP gap confirmed subdued risk to financial stability from corporate credit dynamics. The gap remained in negative territory in the second semester of 2022, implying slower pace of corporate credit growth relative to economic expansion. The corporate credit-to-GDP gap reached a 15-year high of 7.5 per cent in March 2021 due to a temporary contraction in GDP. Moreover, as the economy recovered from the pandemic, the gap narrowed to negative 2.7 per cent in December 2022, from negative 0.2 per cent in June 2022 (Chart 2.15).







The ability of corporates to service their debt obligations weakened marginally during the second semester of 2022. The ratio of corporate credit to operating surplus rose to 75.1 per cent as at end-December 2022, from 74.1 per cent in June. The level of the ratio in December 2022 has considerably improved from 2020 and 2021 levels, though still higher than pre-pandemic readings.





Source: Bank of Mauritius

Deposit dynamics of the household and corporate sectors

Since the onset of the pandemic and up to December 2022, aggregate FX deposits held by the household and corporate sectors have gone up by about US\$733.0 million. This increase in FX deposits was mostly driven by the corporate sector. It implies that part of the sales of FX by the Bank to alleviate pressures on the FX market found their way into FX deposits held by these

Contents

Aacrofinancial

Global business sector

Stress testing the Mauritian banking sector

rinancial undness of ouseholds corporate:

Financial undness of posit-taking nstitutions

on-bank inancial ices sector

sectors with banks. Part of the increase in corporate sector FX deposits could also be explained by the withholding of export proceeds.

Speculative activity can be detrimental to macroeconomic stability as it can fuel excessive FX demand, restrained FX supply, exchange rate depreciation and ultimately economic tensions. Moreover, persistent pressures on the currency can trigger risks to financial stability through various channels as explained earlier. To alleviate pressures on the FX market and uphold its commitment to maintain financial stability, the Bank has been selling FX to the market since the onset of the pandemic, with three large FX interventions of US\$100 million each conducted in November 2022.

Purchases of FX by households moderated

Households showed a temporary and transitory preference to grow their FX savings relative to their Rupees savings since around March 2020, coinciding with the start of the pandemic. As a result, the share of household FX deposit in total household deposits took an upward trajectory. Nonetheless, the share of household FX deposits to total household deposits remained relatively small at around 12.7 per cent by December 2022.

The increase in household FX savings observed up to around March 2021 was characterised by a period of elevated uncertainty and depreciation of the Rupees, given tight conditions on the FX market caused by the pandemic-related economic shock. The rise in households FX deposits reflected a possible inclination to safeguard the value of their savings as well as to meet overseas educational expenses. The share of deposits held by households in FX remained higher relative to pre-pandemic levels, at US\$1.2 billion in December 2022 relative to US\$0.9 billion in December 2019.

The proportion of household deposits held in FX and Rupees relative to total household deposits reached 12.7 per cent and 87.3 per cent, respectively, as at end-December 2022 (Chart 2.17a). In comparison, the share of household deposits in FX and Rs was 10.3 per cent and 89.7 per cent, respectively, as at end-March 2020. Moreover, while household FX deposits grew at an average annual growth of 20.0 per cent from March 2020 until June 2021, the growth rate moderated towards the end of 2021 and throughout 2022 except in December 2022 (Chart 2.17b).



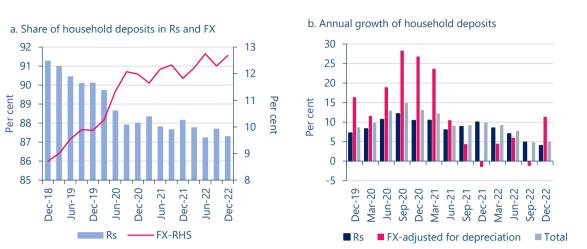
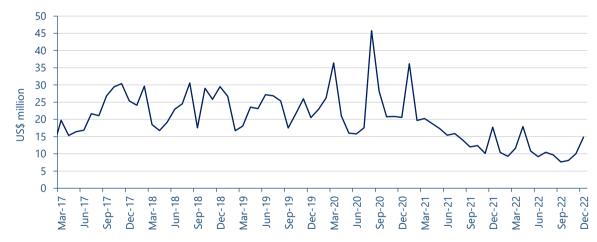


Chart 2.17: Household deposits



Households raised FX deposits mainly by buying FX from banks and the trend moderated in the second semester of 2022. Aggregate FX purchases by the sector were US\$582.3 million from March 2020 to December 2022. These purchases reached US\$60.6 million in the second semester of 2022, lower than the US\$69.1 million bought in the first semester. Recent trends denote a consistent decline in the monthly FX purchases and, therefore, in demand for FX by the household sector (Chart 2.18).





Source: Bank of Mauritius

Corporates held more FX deposit than pre-pandemic level

The corporate sector held higher level deposits in FX relative to Rupees following the onset of the pandemic in March 2020. The share of corporate FX and Rupees deposits to total corporate deposits stood at 47.6 per cent and 52.4 per cent, respectively, in December 2022 (Chart 2.19a).

Contents

undness of ouseholds corporate:

Financial oundness of eposit-taking institutions

In comparison, these proportions were 42.3 per cent and 57.7 per cent, respectively, in December 2019.

The preference for the corporate sector to hold more FX could be explained by a number of factors. For instance, corporate entities were partly holding FX to pay for imports and service their FX debt obligations. Also, corporate entities which had invested abroad may have sold their investments – such as equities and bonds – in times of uncertainty and deposited the funds with banks. The depreciation of the Rupees also incentivised the corporate sector to increase their FX deposits and to withhold some export proceeds to protect the value of their savings. This would ensure they had access to FX when they needed it. Corporate FX deposits grew rapidly during the period April 2020 to March 2021, averaging an annual growth of 19.6 per cent (Chart 2.19b).

Per cent

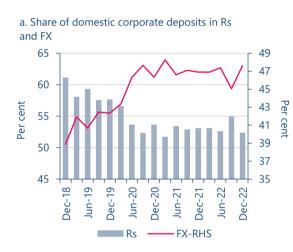
10

5

0

-5

Chart 2.19: Corporate sector deposits



deposits 25 20 15

Jun-20

Sep-20

Jar-20

δ

- Jec

Rs

Dec-20

Jun-21 Sep-21

Mar-21

FX-adjusted for depreciation

Mar-22 Jun-22

Dec-21

Dec-22

Total

Sep-

b. Annual growth of domestic corporate

Source: Bank of Mauritius

Growth of FX deposits decelerated as FX conditions improved

The rise in FX deposits kept by the household and corporate sectors with banks partly contributed to pressures on the FX market, even though the Bank intervened massively to stabilise FX market conditions and prevent excessive exchange rate volatility. The total FX deposits held by these sectors increased to US\$2.7 billion in December 2022, from US\$2.0 billion in March 2020.

Risks to financial stability from FX market pressures were mainly transmitted across sectors of the economy through exchange rate movements and expectations. For instance, the depreciation of the Rs fed into inflation to some extent, eroding the purchasing power of households. This weighed on their capacity to service their debt obligations. In addition, inflation may have dented household consumption which could have been higher otherwise –



as evidenced by real household consumption expenditure estimated to have grown by merely 1.0 per cent in the third and fourth quarters of 2022 relative to the corresponding quarters of the previous year. However, these effects were offset by strong economic expansion and favourable labour market conditions at the macroeconomic level.

As inflows of FX into the economy strengthened during 2022 and FX conditions normalised further, pressures on the FX market have been receding as seen in the first few months of 2023. Already, the exchange rate of the Rupee has gained some ground against the US dollar between July and December 2022. The exchange rate is expected to adjust towards its fundamental-based equilibrium level in coming quarters.

35

Stress testing the Mauritian banking sector



Box 2 – Micro-level assessment of the household sector

The household sector has shown commendable resilience to interest rate hikes and high inflation, though individual households at the lower rung of the income ladder and with high debt burden are undeniably vulnerable. Broad-based and severe financial strains on household debt serviceability were not observed in the second half of 2022. Still, these factors have compelled the average households to adjust their spending behaviour and their propensity to contract additional loans as real income fell.

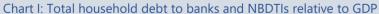
This Box provides a micro-level analysis of the impact of the rise in interest rates on the debt servicing capacity of a typical income earner in Mauritius.

Background

The financial situation of the household sector has evolved with the onset of the pandemic in early 2020, followed by the adverse price shock largely caused by the Russia-Ukraine war that started in February 2022. The low interest rate environment in concert with conducive borrower-based macroprudential limits during the past two and a half years up to June 2022 had eased access to bank credit for households. Further, an analysis of deposits with banks revealed an accumulation of household savings during the first few quarters of the pandemic, which subsequently led to increased propensity to invest in residential properties.

The combination of these two factors prompted a knock-on effect in household indebtedness to banks and other financial institutions. In terms of GDP, the ratio of household indebtedness went up to 25.9 per cent in December 2022, from an average of 20.5 per cent during the five years prior to the pandemic. Likewise, household indebtedness to banks and NBDTIs reached 34.8 per cent of GDP, relative to an average of 31.9 per cent recorded during the five years prior to the pandemic (Chart I).





Macrofinancial

inancial Indness of Duseholds corporates

Source: Bank of Mauritius

Interest rate hikes

The Bank conducted monetary policy focussed on achieving price stability, its primary statutory mandate, after external cost-push shocks propelled inflation to decade-highs in the second half of 2022. It is important to highlight that the tools to achieve price stability and financial stability are distinct. Tensions between these two objectives are indisputably unavoidable. Still, a central bank has to manage the conflict by formulating and implementing appropriate policy responses using the monetary policy and financial stability toolkits at its disposal. Communication remains an important channel for a central bank to explain to stakeholders, and to the public at large, how it intends to fulfil its statutory mandates using the policy tools at its disposal. To that effect, the Bank has been communicating extensively on its policy responses and its assessment of risk to the stability of the financial system and to price stability.

The Bank increased interest rate to respond to high inflation, but the impact of the cumulative policy interest rate hikes of 265 basis points in 2022 on the debt servicing cost for an individual would vary based on initial conditions. These pre-conditions include elements such as: when the borrower contracted the housing loan, the amount borrowed, the initial interest rate level, and the DSTI.

Estimated impact on a typical household

It is estimated that the debt servicing cost of a typical income earner could go up by an average of 4.5 per cent for each 50 basis points increase in interest rates for a housing loan. This estimated cost for a typical/average income earner is based on the following assumptions:

- a. the average monthly salary is computed based on the average monthly earnings published by Statistics Mauritius for the period March 2019 to March 2022,
- b. the income earner has borrowed at the maximum DSTI limit, and
- c. the loan will be repaid over 25 years.

A borrower's monthly instalment is determined by the size of the loan, the applicable interest rate for the credit facility and the loan period. The maximum amount of loan that a borrower is eligible to obtain is computed based on the size of the monthly instalment relative to the borrower's monthly income. The instalment shall not exceed 50 per cent, also known as the debt service-to-income ratio. Prior to June 2021, the regulatory DSTI ceiling was set at 40 per cent. Effective June 2021, the DSTI was raised to 50 per cent post-June 2021. The increase in the DSTI limit allowed households to benefit from larger amount of loans.

38

Borrowing conditions were tighter in 2019 than in subsequent years. Subsequently, the comparatively low interest rate environment from 2020 to mid-2022 meant that households could access higher amount of credit as a result of lower monthly instalment. This led to increased leverage for household borrowers. The higher DSTI limit came into effect in June 2021 and further enlarged the size of credit that an individual could borrow. Against this backdrop, individuals who borrowed from 2020 to mid-2022 are more sensitive to interest rate hikes than those who borrowed in 2019.

Households who borrowed at high DSTI ratios in 2021 up to mid-2022 are more exposed to debt serviceability stress, largely due to interest rate hikes and high inflation (Chart II). For instance, a typical income earner who contracted a housing loan in 2021 would witness a rise in his DSTI ratio to 56.8 per cent in December 2022. Similarly, if the same typical income earner had borrowed in 2022, the DSTI ratio in December 2022 would have risen to 50.1 per cent. In comparison, the DSTI ratio for borrowers who availed of housing loans in 2019 and 2020 is estimated to have remained below the 50 per cent mark (Chart III).¹⁶ Therefore, individuals who borrowed in 2020 and 2021 are estimated to record a higher increase in their debt servicing costs as compared to those who had borrowed in 2019.

For instance, a typical individual who availed of a housing loan in 2019 could register an estimated hike of 10.7 per cent in debt servicing cost in December 2022 relative to the initial instalment. For someone who contracted a housing loan in 2020 and 2021 when interest rates were low, the debt servicing cost is estimated to have risen by 27.3 per cent and 26.8 per cent, respectively, in December 2022.

Nonetheless, the annual growth of 10.9 per cent observed in average monthly earnings from 2021 to 2022 would likely support the debt servicing capacity of households. The average monthly earnings refer to the earnings of employees in large establishments, as published by Statistics Mauritius (Chart IV). In addition, fiscal measures announced in the Budget 2022-2023 are expected to have alleviated the debt servicing burden on households. Specifically,

¹⁶ The average PLR in 2019 was estimated at 6.1 per cent whilst the prevailing DSTI ratio was at 40 per cent for a typical income earner – which constrained the size of loan for which the borrower would have been eligible. As a result of the recent increase in interest rates, the actual DSTI ratio is estimated at 37.6 per cent, principally on account of a higher increase in income as compared to the debt servicing cost from 2019 to 2022.

However, a 2020 borrower would have benefited from a lower estimated interest rate at an average PLR of 4.7 per cent with a prevailing DSTI ratio of 40 per cent, which qualified the borrower for a larger size of loan. The recent hikes in interest rates have led to a higher increase in the debt servicing cost of the borrower on account of a larger size of loan as compared to the 2019 borrower. This led to a jump in the DSTI ratio from 40 per cent in 2020 to 45.3 per cent in 2022. Moreover, during 2021 up to mid-2022, borrowers would have benefited from both lower interest rates and higher DSTI ratios. Both factors qualified borrowers for a considerably higher amount of loan as compared to the 2019 and 2020. Consequently, the increase in interest rates is estimated to have a higher impact on the debt servicing cost of the 2021 and mid-2022 borrower.

the Rs1,000 monthly income allowance extended to income earners with a monthly salary not exceeding Rs50,000 will support these households. In addition, the applicable tax rates for those earners falling under lower income brackets have been revised downwards, thus boosting disposable income of vulnerable households.

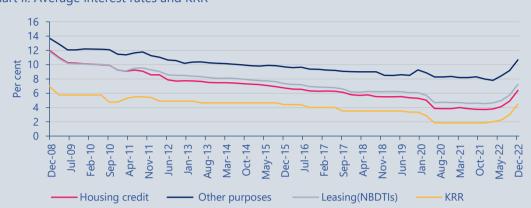
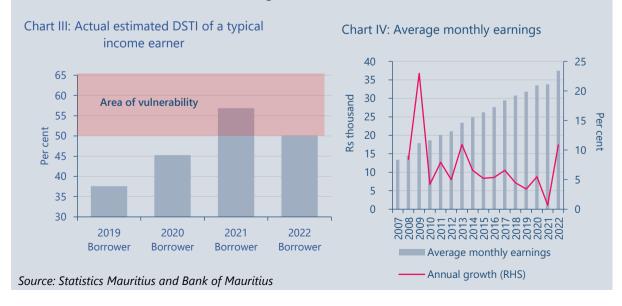


Chart II: Average interest rates and KRR

Source: Bank of Mauritius

Importantly, an analysis in Chapter 2 showed that households had accumulated a sizable amount of savings during the pandemic on account of lower consumption expenditure, fiscal support and lower debt servicing cost. The accumulation of savings suggests the household sector has built buffers to shield itself against financial strains for some time.

Moreover, in case of persistent financial distress, vulnerable households can resort to rescheduling of their credit facilities at banks. This could imply a longer maturity and lower monthly instalment, enabling households to manage their cash flows in a high interest rate environment and elevated cost of living.



Box 3 – The Mauritius Investment Corporation Ltd and financial stability

The Mauritius Investment Corporation Ltd (MIC) – established in June 2020 – has played an instrumental role in safeguarding macrofinancial stability throughout the pandemic and during the phase of economic recovery. The investment strategy of the MIC is geared towards assisting systemically large, important and viable domestic corporates, which has been crucial in alleviating financial strain in the corporate sector and sustaining the soundness of the banking system.

The investments made by the MIC to large corporates operating in some key sectors of the economy supported the robust economic momentum in the second half of 2022. Precisely, the top three sectors that obtained funding from the MIC – namely the 'Accommodation and food service activities', 'Agriculture, forestry and fishing', and 'Manufacturing' sectors – all displayed commendable growth in the second semester of 2022. The financial support provided by the MIC eased cash flow pressures on systemically important corporates and prevented system-wide financial stress in the corporate sector. As a result, beneficiaries of funds were able to stay financially and operationally sound whilst concurrently safeguarding employment. Backed by strong economic dynamism, the unemployment rate has been on a downward path which eased financial strains in the household sector and upheld its debt servicing capacity.

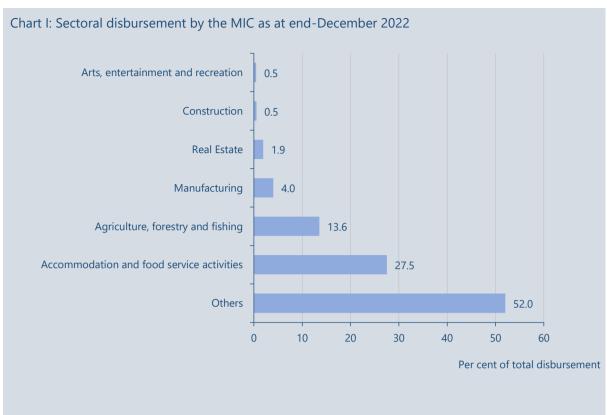
The MIC had disbursed a total amount of Rs48.6 billion as at end-December 2022. Companies operating in some important sectors of the economy benefited from additional funds during the second semester of 2022 notably '*Accommodation and food service activities*', '*Manufacturing*' and '*Real estate*' (Chart I).



Contents

من مسلمان معناد-تعلانام معناد-تعلانام

Global business sector



Source: MIC and Bank of Mauritius



3. Financial soundness of deposit-taking institutions

The elevated level of risk to financial stability in the second half of 2022 was cushioned by robust capital and liquidity buffers maintained by deposit-taking financial institutions, sustaining the flow of credit to the economy. The assets of the banking sector continued to grow, driven mainly by banking activities with residents in the period under review. Asset quality improved further, despite high inflation and rising interest rates. The significant hike in interest rates in the second half of 2022 was well managed by banks, with the interest rate gap – that measures a financial institution's exposure to interest rate risk – in positive territory. Economic activity gained significant momentum in the second half of 2022 and profitability of deposit-taking institutions picked up, contributing towards the consolidation of banks' buffers. The regulatory framework and prudent risk management by banks contributed to safeguard the stability of the financial system, in an environment of heightened risk to financial stability.

No change in the structure of deposit-taking financial sector

The structure of the deposit-taking segment of the financial sector was unchanged in December 2022 relative to June 2022, with banks remaining the main financial intermediaries in the economy. Nineteen banks were licensed to carry on banking business in Mauritius in December – of which six were domestic-owned, ten were foreign-owned, and three were branches of foreign banks. The banking sector pursued its expansion strategy, with the value of assets rising to 384 per cent of GDP in December 2022, from 361 per cent in June 2022.¹⁷ The six NBDTIs in operations in December 2022 were mainly engage in leasing and finance business.

The banking industry continued to be moderately concentrated with a Herfindahl-Hirschman Index (HHI) of 1,642 in December 2022, slightly up from 1,624 in June 2022.¹⁸ The two largest banks – which are domestic-owned – accounted for around 46.9 per cent of total deposits, 48.1 per cent of total loans, and 46.7 per cent of total assets of the banking industry as at end-December 2022. The share of banking sector total deposits, total advances and total assets held by the remaining banks were quasi-unchanged, indicating no change in the moderate concentration level in the industry. Many banks expanded their asset base through diverging strategies. These banks – mostly foreign banks – continue to take advantage of the opportunities presented by the non-resident segment and GB sector.

ial Macrofinancial ss of environment ids rates

Financial soundness of deposit-taking institutions

¹⁷ Based on revised GDP at current market prices for 2022 from Statistics Mauritius.

¹⁸ The Herfindahl-Hirschman Index (HHI) assesses market competitiveness. A market with an HHI of less than 1,500 is considered a competitive marketplace, an HHI of 1,500 to 2,500 is moderately concentrated, and an HHI of 2,500 or greater is highly concentrated.

The Bank carried out its regular review of the systemic importance of banks in June 2022 and the resulting capital surcharge they have to maintain. The same five banks – The Mauritius Commercial Bank Limited, SBM Bank (Mauritius) Ltd, Absa Bank (Mauritius) Limited, The Hongkong and Shanghai Banking Corporation Limited (Branch) and AfrAsia Bank Limited – were determined to be systemically important.

These Domestic-Systemically Important Banks (D-SIBs) maintained adequate capital buffers, inclusive of their respective D-SIB capital surcharge that ranged between 1.0 and 2.5 per cent. Rising profitability levels allowed them to accumulate capital buffers and bolster the flow of credit to the economy. Robust credit management framework contributed to protect the asset quality of the D-SIBs. They also implemented strong liquidity management frameworks, with Liquidity Coverage Ratios (LCRs) significantly over the regulatory threshold of 100 per cent in both Rupee and main foreign currencies.

The six NBDTIs continued to operate in thriving environment. The NBDTIs sector represented a smaller portion of the financial industry, though their total assets as a share of GDP rose to 12.1 per cent in December from 11.8 per cent in June 2022.¹⁷ The NBDTIs were profitable, well capitalised and resilient in the second half of 2022. Their main activity consisted of mobilising deposits, and extending lease and loan facilities. Leases and loans accounted for 79.9 per cent of their total assets as at end-December 2022, compared to 80.7 per cent as at end-June 2022.

Strong banking sector balance sheet and increased confidence

Banks continued to strengthen their balance sheet as domestic economic conditions improved further in the second half of 2022 and business opportunities with key external markets expanded. Total banking sector assets stood at Rs2.2 trillion, after having grown at an annual rate of 8.3 per cent in December 2022 (Chart 3.1). Domestic-owned banks – holding 61.7 per cent of the assets – were the main drivers of asset growth, with annual growth rate of 6.8 per cent in December 2022. Likewise, foreign-owned banks, with a 36 per cent share of the sector's assets, recorded an annual growth of 11.8 per cent. The remaining of the sector's asset shares was owned by branches of foreign-owned banks, which conversely registered an annual fall of 4.5 per cent in their assets.

Banks expanded their balance sheet mainly through the non-resident segment, mostly in FX. The non-resident FX segment grew at an annual rate of 12.0 per cent to an equivalent of Rs1 trillion as at end-December 2022. Banks have in general continued to invest more in foreign government securities and treasury bills. This balanced the risks arising from further extension of FX loans to the non-resident segment and investment in foreign securities.



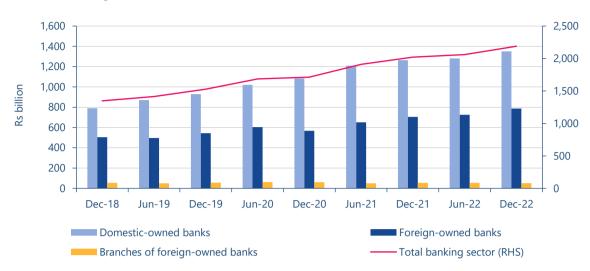
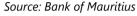


Chart 3.1: Banking sector assets



Banks continued to on-board more risky assets as the economic outlook – at both domestic and global level – remained favourable, despite uncertainties and risks. Credit risk remained a major risk factor in the balance sheet of banks but the rise in credit risk was mitigated through prudent risk management.

Risk-weighted assets (RWAs) grew by 3.2 per cent from end-June to end-December 2022 to stand at Rs1 trillion as at end-December 2022. The rise in RWAs was primarily driven by banks increasing their on-balance sheet risk-weighted credit exposures. The latter represented on average around 85 per cent of RWAs and grew by 3.0 per cent from end-June to end-December 2022. Non-market off-balance sheet credit exposure was the next largest contributor to the rise in banks' total RWAs, with an increase of 9.0 per cent from end-June to end-December 2022.

Market and operational risks had minimal risk impact on banks' balance sheet. Market-related off-balance risk-weighted credit exposures registered an increase of 0.9 per cent from end-June to end-December 2022. Banks' robust risk management frameworks alleviated the impact of persistent market volatility and hike in interest rates. Risk-weighted assets for operational risk went up by 1.2 per cent from end-June to end-December 2022. This was fuelled by the ongoing digitalisation trend and intensification of geopolitical tensions around the globe.

Liquidity risk were well managed in spite of growing challenges. Banks balanced risk through continuous investment in low risk and more liquid assets such as 'Government and Central Bank Securities', which accounted for around a quarter of the banking sector's assets (Chart 3.2). Investments in these securities went up by 22.1 per cent on an annual basis to reach Rs564 billion as at end-December 2022. These investments also balanced the incidence of credit risk

Rs billior

Aacrofinancial environment

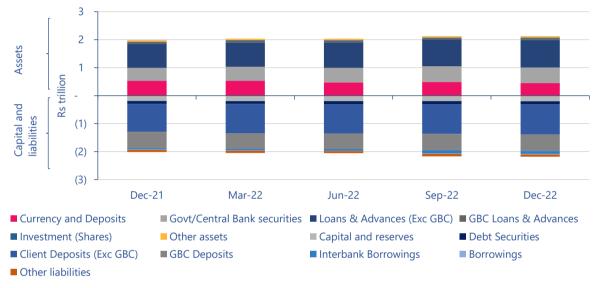
Contents

nancial ndness of iseholds orporates

> undness of osit-taking stitutions

on banks' balance sheet arising from lending to the private sector. A contraction was noted in the share of deposits held by the banking sector with banks and other financial institutions to total assets to 11.7 per cent in December 2022, from 14.7 per cent in June 2022. This further supported redeployment of funds towards credit facilities and investments in higher yielding securities, denoting an increase in risk appetite and confidence of banks.

Banks continued to source funding from deposits held by the household and corporate sectors (inclusive of GBC). Deposits grew at an annual rate of 5.8 per cent as at end-December 2022, mostly led by FX deposits. Non-resident FX deposits rose by 14.2 per cent as at end-December 2022, representing around one-fifth of the deposit base.





The funding structure of banks was tilted towards wholesale funding. It represented nearly 50 per cent of total banking sector liabilities and 61.2 per cent of total banking sector deposits as at end-December 2022.¹⁹ Wholesale funds rose to Rs1.02 trillion in December 2022, from Rs1.01 trillion in June 2022. Retail funds remained on its long-term upward trend. It grew to Rs450 billion as at end-December 2022, with a share of 20.6 per cent in banking sector assets.

Banks benefitted from hikes in interest rates during the second semester of 2022. They allocated more funding to interest-sensitive financial assets to reap the benefits of the rising interest rates. The share of total assets held in banks' trading book to aggregate Tier 1 capital increased to 17.1 per cent as at end-December 2022, from 12.5 per cent as at end-June 2022.

Contents

45

Source: Bank of Mauritius

¹⁹ As per the Bank's Guideline on Liquidity Risk Management, wholesale funding is referred to as liabilities and general obligations which emanate from non-natural persons (i.e., legal entities, including sole proprietorships and partnerships).

Balance sheet resilient to interest rate risk

The banking system had adequate capacity and buffers to support the domestic economy in a period of rising interest rates. Banks actively managed their interest rate risk by considering the maturity and variability of interest rates on their funding and assets. Capital requirements associated with interest risk were prudently calibrated, which translated into the positive interest rate gap held by most banks.

The interest rate gap measures the interest rate risk sensitivity of assets and liabilities for a given time band. A negative interest rate gap implies higher interest rate-sensitive liabilities compared to interest rate-sensitive assets, whilst a positive interest rate gap is the opposite. In effect, with rising interest rates, a negative interest rate gap would imply higher net interest payment, translating into lower profits and revenue for the sector.

The banking sector interest rate gap remained in positive territory as at end-December 2022 (Chart 3.3). Overall, however, a drop was noted in the gap to Rs304 billion as at end-December 2022 from Rs419 billion as at end-June 2022. This was reflective of most time band buckets, with one exception. It moved to negative territory in the 'up-to-30 days' bucket. In addition, the interest rate gap improved in the '31-to-90 days' bucket. This implies that 'up to 30 days', banks were paying out higher interest on their liabilities compared to interest income received from assets, while recouping net interest income over the remaining time band buckets. Thus, on net basis, banks had adequate capacity to realise profits over long-term for capital accumulation and sustaining buffers.

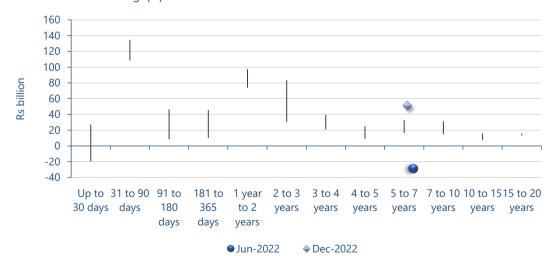


Chart 3.3: Interest rate gap per bucket

Source: Bank of Mauritius



Stre

Robust capital buffers

The level of capitalisation of the banking sector remained strong, with sizeable headroom over the regulatory limit. High capital levels provided a safeguard for banks to continue supporting credit flow to the economy, despite global economic uncertainties coupled with rising domestic interest rates and inflation. The banking sector maintained capital mainly in the form of Common Equity Tier 1 (CET1), representing slightly more than 90 per cent of total capital, which is of high quality and permanent nature. The CET1 capital was Rs178.9 billion as at end-December 2022, representing 17.8 per cent of RWAs, up from the revised figure of 17.7 per cent as at end-June 2022.

The aggregate CAR for the banking sector improved to 19.5 per cent as at end-December 2022, from the revised figure of 19.4 per cent as at end-June 2022, hovering well above the minimum regulatory limit of 12.5 per cent (Chart 3.4). The combined capital of banks rose by 4.5 per cent in the second semester of 2022 to reach Rs195 billion as at end-December 2022. This increase in capital was partly offset by a growth of 3.2 per cent in the RWAs of banks.



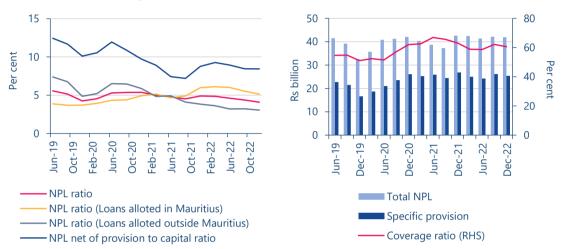
Chart 3.4: Capital adequacy ratio of the banking sector

Source: Bank of Mauritius

The five D-SIBs reinforced the resilience of the banking sector to shocks and alleviated systemic risks to the financial system by holding adequate capital buffers. They strengthened their combined CAR to 17.8 per cent as at end-December 2022, from 17.4 per cent as at end-June 2022. The capital base of the D-SIBs went up to Rs121.4 billion in December 2022.

Sustained improvement of asset quality

The asset quality of the banking sector continued to improve in the second half of 2022. The NPL to total outstanding credit facilities ratio dropped to 4.1 per cent as at end-December 2022, from 4.6 as at end-June 2022 (Chart 3.5). This improvement was mainly due to an annual expansion of 17.9 per cent in total outstanding credit facilities extended by banks, as economic activity as well as business confidence gained further ground. The NPL ratio for the D-SIBs improved to 5.1 per cent as at end-December 2022, from 5.4 per cent as at end-June 2022.





Source: Bank of Mauritius

The highest share of impaired credit was attributed to the '*GBC*' sector followed by the '*Wholesale and retail trade*' and '*Accommodation and food services*' sectors. On a positive note, the NPL ratio for the '*Agriculture*' and '*Construction*' sectors improved in the second half of 2022.

The NPL ratio for credit facilities allotted to economic sectors in Mauritius improved to 5.2 per cent as at end-December 2022 from 6.0 per cent as at end-June 2022. This positive development resulted mainly from a 3.5 per cent reduction in NPL coupled with a 12.9 per cent growth in credit facilities granted in Mauritius. The NPL ratio for credit facilities allotted to sectors outside Mauritius dropped by 0.1 percentage point to 3.1 per cent during the same period, as banks extended more facilities to these sectors.

Banks prudently managed credit risk by increasing provisioning levels. Total specific provisions was Rs25.4 billion as at end-December 2022, up from Rs24.2 billion as at end-June 2022. These provisions were mostly for economic sectors in Mauritius. The coverage ratio, measured as the ratio of specific provisions to gross NPL, increased to 60.6 per cent from 58.6 per cent over the same period. The level of stages 1 and 2 provisions set aside for anticipated future losses, as

Contents

Macrofinancial

Global ness sector

busi

ess testing Mauritian king sector

Str. the vank

enviror

Financial oundness of households d corporate:

Financial soundness of deposit-taking institutions

Non-bank financial rvices sector

per IFRS 9 reporting standard, has increased by about 7.0 per cent between June 2022 and December 2022.

Financial soundness of deposit-taking institutions

Credit risk went up in the second half of 2022. The migration of credit classified under stage 2 gives an indication of credit risk since initial recognition. An analysis revealed that stage 2 credit has gone up by 34.2 per cent between June to December 2022, though its share of aggregate credit classified under stages 1, 2, and 3 remained around 8 per cent. Stage 1 credit represented around 88 per cent of the sector's total outstanding credit facilities as at end-December 2022. It expanded by 9.9 per cent from end-June to end-December 2022. The level of stages 1 and 2 provisions set aside for anticipated future losses as per IFRS 9 reporting standard increased by about 7.0 per cent over the same period.

Rising profitability

The profitability level in the banking sector pursued its upward trajectory, with key ratios approaching pre-pandemic levels. Higher annualised net interest income drove the rise in profitability, bolstered by credit growth as well as by short-term benefits from hikes in interest rates, particularly through additional investment in 'Government and Central Bank securities'. Annualised net interest income grew by 20.9 per cent from end-June to December 2022. Annualised non-interest income went up by 14.3 per cent. Annualised impairment charges increased by 22.5 per cent, as part of banks' prudent risk management. Despite persistent high inflation, banks kept operating expenses under control as reflected by a fall in non-interest expense as a ratio to gross income to 40.5 per cent in December 2022, from 42.5 per cent in June 2022.

Annualised pre-tax return on assets (ROA) and post-tax return on equity (ROE) picked up further in the second half of 2022. The ROA rose to 1.5 per cent in December 2022, from 1.2 per cent in June 2022. Similarly, the ROE went up by 3.3 percentage points to 14.5 per cent in December 2022 from June 2022 (Chart 3.6).



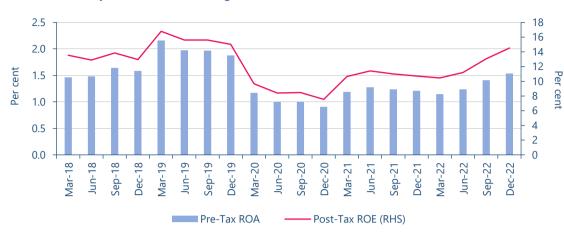


Chart 3.6: Profitability ratios of the banking sector

Source: Bank of Mauritius

The robustness of the banking sector partly hinges on the ability of banks to accumulate earnings and reinforce capital buffers. Profitability remains subject to domestic as well as global economic uncertainties. Increases in interest rates will contribute towards boosting net interest income, as banks reallocate funds in favour of interest-sensitive assets, such as credit and investment in shares and debt securities.

Sufficient liquidity buffers

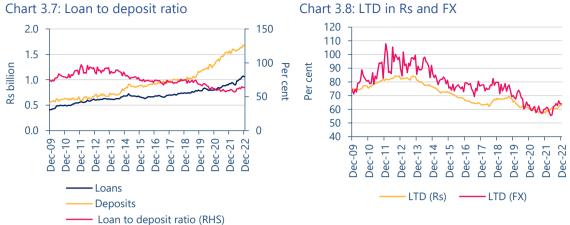
Banks adopted prudent liquidity risk management by conserving liquidity buffer, in both Rupees and other major currencies, over and above the regulatory minimum. The consolidated LCR of the banking sector was 238.3 per cent as at end-December 2022 from 235.8 per cent as at end-June 2022, well above the regulatory floor of 100 per cent. The aggregate FX LCR strengthened to 207.2 per cent from 183.8 per cent over the same period. The LCR indicates the capacity of banks to withstand any liquidity withdrawal within a 30-day period, and the buffers maintained by banks indicate they are well positioned to withstand such drawdowns.

The loan-to-deposit (LTD) ratio of the banking sector was well below its historical average of 75 per cent during the last quarter of 2022.²⁰ The slight increase in the ratio in the second half of 2022 was not viewed as a threat as banks had sufficient liquidity. The ratio rose to 63.6 per cent as at end-December 2022, from 61.6 per cent as at end-June 2022 on account of larger increase in loans relative to the growth of deposits (Chart 3.7). The LTD (FX) rose to 64.0 per cent as at end-December 2022, from 62.1 per cent as at end-June 2022 whilst the LTD (Rs) increased to 62.7 per cent, from 60.7 per cent during the same period (Chart 3.8).

Contents

al Macrofinancial s of environment lds rates

²⁰ The LTD ratio shows to what extent banks rely on deposits to fund their loans. An LTD ratio in excess of 100 per cent generally signals high liquidity risk for banks as they would require other sources of funds such as borrowings to fund their assets.





Source: Bank of Mauritius

The funding gap - the difference between banks' annual loans growth and deposits growth widened and stayed in positive territory as annual growth in loans was higher than for deposits during the second semester of 2022 (Chart 3.9).²¹ The gap rose to 0.8 per cent as at end-December 2022, from 0.5 per cent as at end-June 2022. A persistent expansion of the funding gap would indicate that banks would require other sources of funds, such as borrowings, to fund growth of its assets. This may heighten liquidity risk.

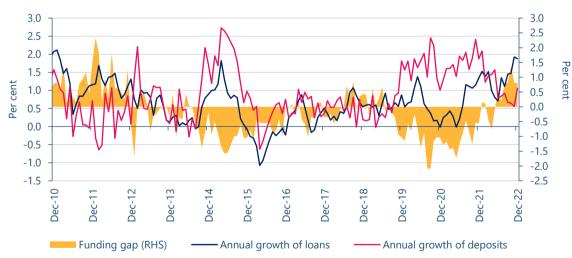


Chart 3.9: Domestic banking system's funding gap

Source: Bank of Mauritius

Contents **Aacrofinancial**

²¹The funding gap measures the difference between lending growth and deposit growth. It shows whether banks have enough new deposit funding relative to their lending growth. A positive funding gap means banks' loans (maturing assets) are growing faster than banks' deposits (liabilities).

Credit concentration and FX exposures within prescribed limits

Credit concentration and FX exposures of banks were kept within prudential limits. Large exposures – denominated in both domestic and foreign currencies – as a percentage of Tier 1 capital were within regulatory limits. Likewise, the ratio of FX exposures to Tier 1 capital was maintained below the prescribed ceiling (Chart 3.10). Altogether, this indicated that banks are applying prudential risk management practices.





Source: Bank of Mauritius

Cross-border exposures expanded further

Cross-border banking activities expanded further during the second semester of 2022, both in terms of funding and deployment of assets. Cross-border funding by banks remained on an uptrend, consistently above pre-pandemic levels (Chart 3.11). Higher growth was noted in terms of funding raised by the sector, compared to the deployment of funds by the sector abroad. Still, the banking sector was a net provider of funds, in line with past trends, essentially due to the deployment of GBC funds abroad in addition to those raised from non-residents.

Cross-border funding of banks was mainly in the form of deposits and borrowings, accounting for around a quarter of the banking sector's total funding structure. It registered an annual growth of 9.6 per cent to US\$11.4 billion as at end-December 2022. This trend was primarily driven by an annual increase of 11.9 per cent in non-resident deposits to US\$7.7 billion as at end-December 2022. Borrowings by banks and financial institutions grew at an annual rate of 5.1 per cent, to reach US\$2.9 billion.

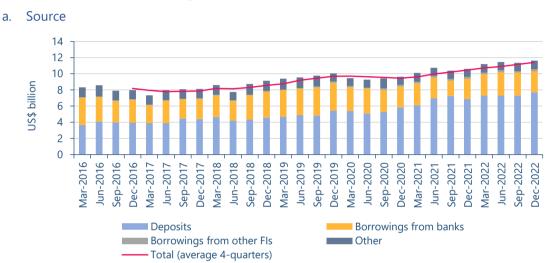


Contents

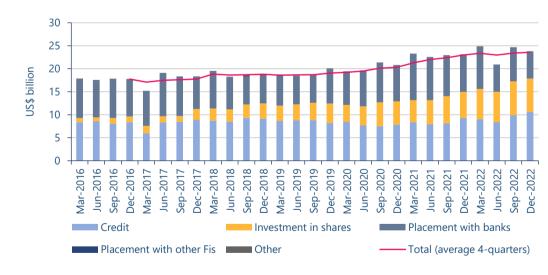
Macrofinancial environment

Global

Stre the bank Deployment of cross-border funds by the banking sector remained on an upward trend, expanding at an annual rate of 3.0 per cent to US\$24 billion as at end-December 2022. Crossborder credit and investment in shares increased at an annual rate of 14 per cent and 28 per cent, respectively, as at end-December 2022. These increases were supported by re-allocation of funds away from deposits made with other banks, in favour of credit and investment – both which are interest-sensitive assets – to reap the benefits of increasing interest rates.







Source: Bank of Mauritius

b. Uses

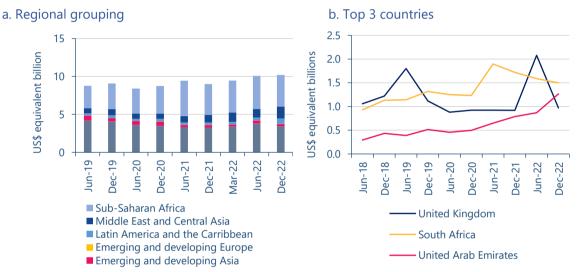
The geographical distribution of cross-border funding remained quasi unchanged. Most of the banking sector exposure were to advanced economies, followed by Sub-Saharan Africa and Middle East and Central Asia (Chart 3.12). Around one third of the total cross-border funding was sourced from South Africa, United Arab Emirates and the UK.

Contents

Global

Deposits from non-residents, one of the main components of cross-border funding, accounted for around 20 per cent of total banking sector deposits. These deposits stood at US\$7.7 billion as at end-December 2022 from US\$7.3 billion as at end June 2022. In terms of geographical regions, deposits from Africa and Asia registered a decline but deposits from the other regions went up between end-June and end-December 2022. Borrowings from banks outside Mauritius – mainly from Europe – declined to US\$2.6 billion as at end-December 2022, from US\$2.9 billion as at end-June 2022. Banks borrowed more from banks in Asia with an increase of 212.9 per cent during that same period.

Chart 3.12: Cross-border funding exposure





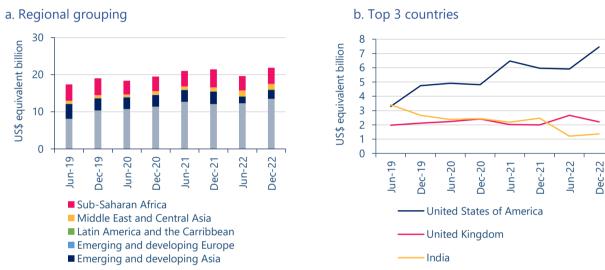
c. Main sources of fund- Continent-wise

Source: Bank of Mauritius

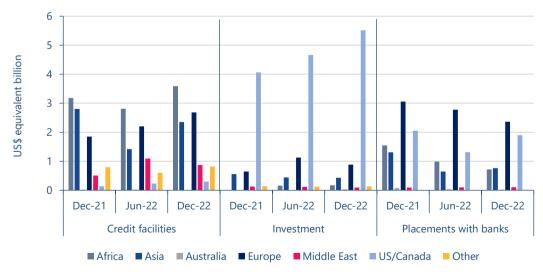
Banks deployed most of their funds in favour of advanced economies, Sub-Saharan Africa and Middle East and Central Asia (Chart 3.13). The US, UK and India received the highest share of

the funds, representing around 31 per cent, 9 per cent and 6 per cent, respectively, of the total. The proportion of cross-border uses of funds – mostly in the form of credit facilities – out of total uses increased to 44.7 per cent in December 2022 from 39.9 per cent in June 2022, with Africa being the main destination of the cross-border credit facilities. Investment in foreign securities and deposits with banks accounted for 30.5 per cent and 24.8 per cent as at end-December 2022, respectively, down from 31.7 per cent and 27.9 per cent as at end-June 2022. Most of the investment funds for the banking sector were channelled to the US while most deposits of funds were to Europe.

Chart 3.13: Cross-border uses of fund exposure



c. Main uses of fund- Continent-wise



Source: Bank of Mauritius

Risks from cross-border banking activities were prudently managed, in particular credit and liquidity risks. The NPL ratio for credit extended outside Mauritius dropped further to a multi-

Contents

Macrofinancial

Global

Stress testing the Mauritian banking secto year low of 3.1 per cent in December 2022, well below the average for the aggregate credit portfolio. The Guideline on Cross-Border Exposure, revised August 2022, provides the minimum standards that banks have to follow in respect of their cross-border exposures. It elaborates a risk-based management framework to mitigate cross-border banking risks. As for liquidity risk, banks held more than the minimum High-Quality Liquid Assets (HQLA) as a safeguard against unexpected net outflows by non-resident clients. The share of FX deposits held by non-residents and GBCs continued to rise, representing 84.2 per cent of total FX deposits in December 2022. The banking sector maintained high FX HQLA, at around US\$8.4 billion in December 2022 as a cushion against liquidity risk.

Tight financial conditions coupled with elevated risk to financial stability at the global level represent a risk to cross-border banking activities. This outlook is expected to persist during 2023. On a positive note, the buffers held by banks were assessed to be sufficiently sound to cushion potential shocks. The combination of regulatory standards and buffers would ensure that the banking sector manages cross-border banking risks effectively. The internal risk management systems of banks would also supplement prudential standards.

Improved Banking Stability Indicator

The banking sector maintained its robustness in the second half of 2022, as measured by the Banking Stability Indicator. The Banking Stability Indicator assesses performance in five key areas: namely, soundness, asset quality, profitability, liquidity and efficiency of banks. The index was at 0.31 as at end-December 2022, well below the high-risk score of 1. It has continuously improved, from 0.38 as at end-June 2022 and 0.36 as at end-September 2022, reaching levels well below the pre-pandemic trend (Chart 3.14).²²

The indicators of asset quality, profitability and efficiency improved over last two quarters of 2022. In contrast, the financial soundness and liquidity indices deteriorated marginally. Banks expanded their balance sheet through higher investment in long-term interest-sensitive assets, which partly offset the rise in regulatory capital and liquid assets.

Macrofinancial environment

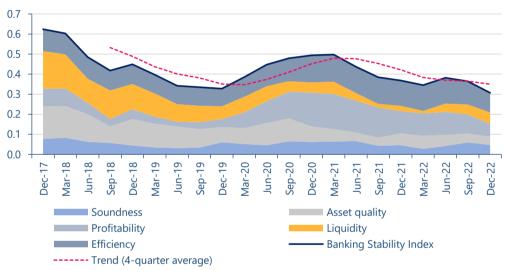
Financial soundness of households and corporates

²² As the five risk indicators move further away from the centre (approach a score of 1), the composite measure of riskiness increases.









Source: Bank of Mauritius

Non-Bank Deposit-Taking sector remained sound

The NBDTI sector was well capitalised and reinforced its liquidity position in the second half of 2022, but confronted funding challenges. The aggregate CAR of the sector improved to 52.5 per cent as at end-December 2022, from 49.4 per cent as at end-June 2022. This improvement in CAR was on account of an increase in the capital base of NBDTIs by 8.3 per cent.

The asset base of NBDTIs continued to expand in the second half of 2022. The aggregate assets of NBDTIs grew at an annual rate of 3.1 per cent to Rs69.1 billion as at end December 2022. Non-performing loans/leases of the sector were not a material risk to the solvency of NBDTIs. The ratio of NPL (net of provisions) to capital improved to 6.7 per cent as at end-December

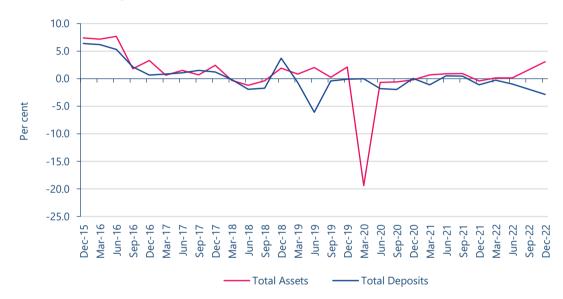


57

2022 from 7.2 per cent as at end-June 2022. The NPL ratio improved slightly to 5.0 per cent as at end-December 2022, from 5.1 per cent as at end-June 2022. NBDTIs increased their deposits held with banks by 20.5 per cent over the period under review, as interest rates went up.

NBDTIs' deposits declined at an annual rate of by 2.9 per cent to Rs40.9 billion (Chart 3.15). They conversely raised Rs1.6 billion loan capital and Rs268 million non-interbank borrowings over the year ended December 2022, which stood at Rs1.7 billion and Rs754 million, respectively, as at end-December 2022. The NDBTIs' reserves also registered an annual growth 8.3 per cent to Rs19.4 billion as at end-December 2022.





Source: Bank of Mauritius

The profitability level of NBDTIs declined during the period under review. The annualised profit after tax of NBDTIs declined to Rs1.9 billion in December 2022, from Rs2.2 billion in June 2022. This contraction was mainly attributed to a drop of 16.8 per cent in operating income during the period under review. The pre-tax ROA and post-tax ROE of NBDTIs stood at 3.3 per cent and 9.4 per cent, respectively, down from 3.6 per cent and 10.9 per cent in the previous quarter (Chart 3.16).



Contents

Macrofinancial environment

Global

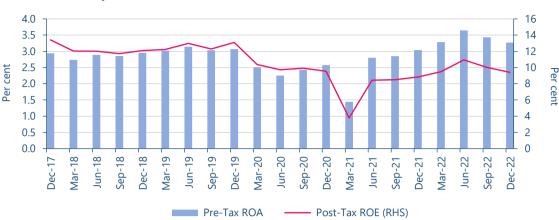
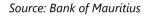


Chart 3.16: Profitability ratios of NBDTIs



NBDTIs maintained comfortable liquidity buffers during the second half of 2022 to manage liquidity risk. Liquid assets of NBDTIs remained stable at around Rs9.4 billion from end-December 2021 to end-December 2022. These liquid assets improved by 6.0 per cent from end-June to end-December 2022. The ratios of liquid assets to total assets and liquid assets to short-term liabilities strengthened to 13.8 per cent and 20.1 per cent, respectively, as at end-December 2022, from 13.4 per cent and 19.5 per cent, respectively, as at end-June 2022.

Financial Soundness Indicators improved

Financial Soundness Indicators (FSIs) of deposit-taking institutions have been computed based on the IMF Guide (2019). The core set of FSIs is grouped into six categories (Chart 3.17).

Deposit-taking institutions sustained healthy capital position in the second semester of 2022. The CAR of deposit-taking institutions strengthened to 20.6 per cent as at end-December 2022, from 20.3 per cent as at end-June 2022. CET1 capital improved by 4.9 per cent to Rs197.2 billion as at end-December 2022. The risk appetite of deposit-taking institutions – represented by RWA – also increased by 3.2 per cent over the period under review.

The asset quality of deposit-taking institutions improved noticeably alongside adequate coverage. The NPL ratio of deposit-taking institutions fell to 4.9 per cent as at end-December 2022, from 5.6 per cent as at end-June 2022. The level of provisions set aside for the NPL contracted slightly by 0.4 per cent to stand at Rs26.8 billion as at end-December 2022. The quality of assets of deposit-taking institutions reflects prudent credit risk management undertaken by those institutions. As for loan concentration to economic sectors, the top three sectors aggregate loans amounted to Rs102.2 billion in December 2022. The three sectors namely, 'Accommodation and food services', 'Wholesale and retail trade' and 'Real Estate'



Contents

Aacrofinancial

Global business sector

Stress testing the Mauritian banking sector

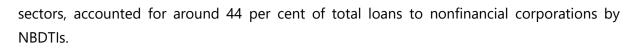
oundness o households d corporate

Financial bundness of posit-taking nstitutions

Non-bank financial services sect

tress testing Glo he Mauritian business anking sector





Financial soundness of deposit-taking institutions

The profitability levels of deposit-taking institutions have been on the rise. The annualised post-tax profit of deposit-taking institutions went up to Rs30.6 billion during the period ended December 2022. Pre-tax ROA and post-tax ROE also improved and stood at 1.6 per cent and 14.0 per cent, respectively, in December 2022 from 1.3 per cent and 11.2 per cent in June 2022. The rising interest rate environment had been a key player in boosting the overall profitability of deposit-taking institutions.

The liquidity position of deposit-taking institutions was sound in the last semester of 2022, with liquid assets hovering around Rs1 trillion. The ratio of liquid assets to total assets declined to 45.5 per cent as at end-December 2022 from 47.9 per cent as at end-June 2022. This slight decline in the liquid ratio was mainly due to a more than proportionate increase in total assets than in liquid assets during the period under review. Similarly, the ratio of liquid assets to short term liabilities dropped marginally to 50.8 per cent in December 2022.

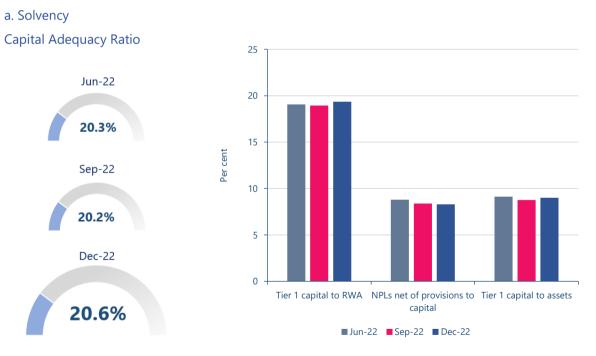
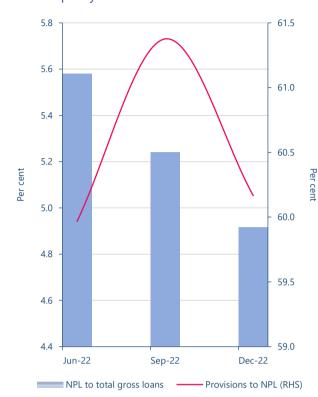


Chart 3.17: Financial Soundness Indicators

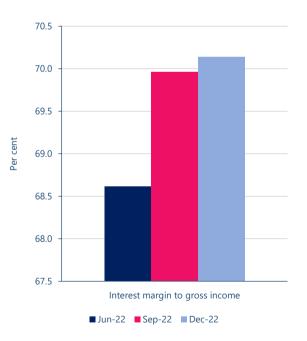


44.8% Sep-22 44.2% Dec-22 43.8%

Loan concentration by economic activity



c. Profitability



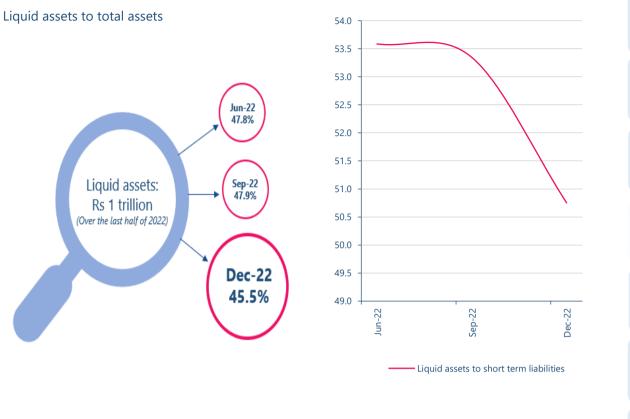
d. Liquidity



b. Asset quality

O.

Financial soundness of deposit-taking institutions



e. Sensitivity to market risk Net open position in foreign exchange to capital



f. Encouraged FSI

62

Contents

Macrofinancial environment

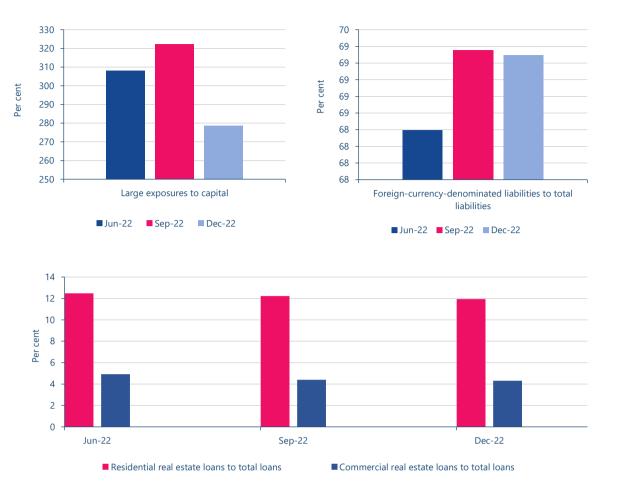
Financial soundness of households and corporates

Non-bank financial services sector

Global business sector

Stress testing the Mauritian banking sector

Financial soundness of deposit-taking institutions



Source: Bank of Mauritius



63

Contents

Macrofinancial nment

envii

Financial soundness of households and corporates

Financial soundness of deposit-taking institutions

Non-bank financial ervices sector

Global business sector

Stress testing the Mauritian banking sector

4. Non-bank financial services sector

The non-bank financial services sector demonstrated notable resilience and adaptability in the second half of 2022. Gross premium collected by the insurance industry rose further. Life insurers continued to protect their investment portfolio through higher long-term investments in debt securities as part of their portfolio optimisation strategy, while attempting to tap into opportunities from rising interest rates. The value of the assets held by the pension industry, however, stayed on a downward course, partly because of large exposure to equity investment and the sluggish performance of the stock market. The outlook for the sector is hurdled with challenges, including the global macroeconomic and geopolitical landscape, climate change, and digital and cyber risk trends. The sector aims to be flexible and adaptable to those challenges, with the assistance of the FSC and other regulatory authorities.

The non-bank financial services sector – comprising life insurances, general insurances and pension funds – demonstrated resilience in the face of a host of challenges during 2022, particularly from the economic fallout of high inflation and rising interest rates in the second half of 2022. The insurance sector – the largest segment of the non-bank financial services sector – remained sound and expanded further as the life insurance industry rebalanced its asset portfolio from equity to fixed income instruments. In contrast, the pension industry registered a set-back with a drop in the value of its assets given significant exposure to a declining equity markets.

The composition of the insurance sector was unchanged compared to the first half of 2022, with 7 life insurers and 15 general insurers operating in the industry as at end-December 2022. Life insurers held most of the sector's asset, which was consistently around 80 per cent from end-June to end-December 2022. The level of penetration for life insurers – measured as a ratio of annualised insurance premium to GDP – remained stable at around 2.2 per cent for life insurers. The penetration ratio for general insurers improved to 2.6 per cent in December 2022, reflective of an increase of 0.3 percentage point compared to June 2022 driven mainly by increasing annual premium collected by general insurers.

As the domestic economy expanded further and the economic outlook remained positive, prospects for the insurance and pension industries are expected to be favourable. However, these industries face multiple challenges such as weaker global economic outlook, high interest rates, and climate change. The sector would need to be more flexible and adaptable, and build on the momentum gained over the last semester of 2022. The FSC, in collaboration

Financial soundness of households and corporates



Str

Life insurance industry performed better

Life insurers registered an improvement in their assets value during the second semester of 2022. The value of the assets increased at an annual rate of 2.0 per cent to Rs109.6 billion as at end-December 2022 (Chart 4.1).

with other regulatory authorities, stands ready to take necessary measures to mitigate

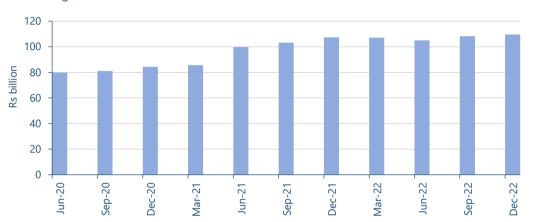


Chart 4.1: Long-term insurance assets

emerging risks.

Life insurers continued to tap in investment opportunities from fixed income instruments, whilst reducing their exposure to equity and investment fund shares (Chart 4.2). The value of investment in debt securities grew by 14.0 per cent from end-June to end-December 2022, to stand at Rs42.4 billion. Assets held in the form of equity and investment fund shares dropped by 6.6 per cent to Rs39.1 billion as at end-December 2022 from end-June 2022. The reallocation to long-term investment in debt securities was arguably due to the combined effects of rising interest rates and the fall in equity prices on financial markets. The SEMDEX fell by 3 per cent between end-June to end-December 2022. The active management of their portfolios allowed life insurers to hedge against equity market exposures and keep the value of their assets on an upward trajectory and, ultimately, safeguard solvency.



Source: Financial Services Commission

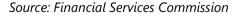
Chart 4.3: Financial assets by industry as at end-December 2022

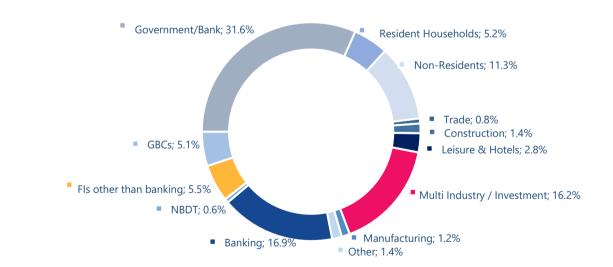
Non-bank financial services sector

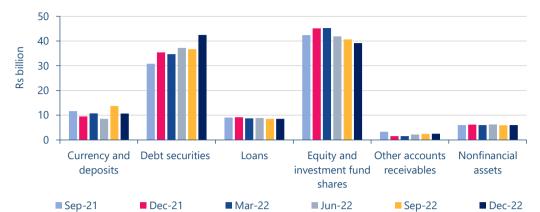
Source: Financial Services Commission

The strategic shift by life insurers towards investment in debt securities aimed to reap the benefits of rising interest rates. Their asset portfolio consisted mainly of securities issued by the Government of Mauritius and the Bank (Chart 4.3). They held an aggregate share of 31.6 per cent as at end-December 2022, up from 28.6 per cent as at end-June 2022. Rising interest rates had pushed up the returns on these securities. The other significant exposures were the banking sector (16.9 per cent), multi industry/investment (16.2 per cent) and non-residents (11.3 per cent).

Chart 4.2: Assets distribution







Financial M undness of e ouseholds corporates

crofinancial

Contents

Financial soundness of eposit-taking institutions Gross premium underwritten by the long-term insurers grew at an annual rate of 5.0 per cent to Rs6.2 billion during the second half of 2022 (Chart 4.4a).²³ Around 50 per cent of the total gross premium pertained to life assurance followed by Linked Long-Term and Pension (Chart 4.4b).²⁴ The number of life insurance policies in force declined by 1.2 per cent at the end of 2022 compared to a year earlier (Chart 4.4c).

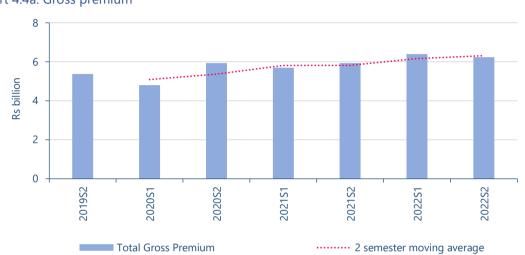
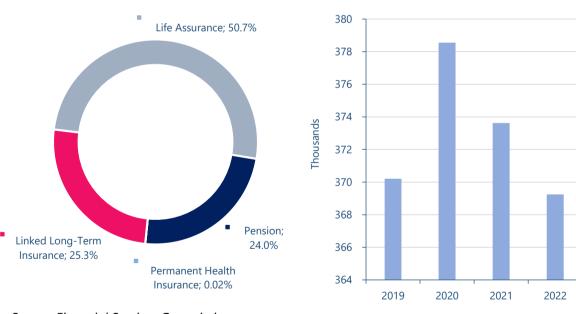


Chart 4.4a: Gross premium

Chart 4.4b: Gross premium for 2022 by policy class





Source: Financial Services Commission

Contents

Aacrofinancia

Str

²³ The amount of Rs6.2 billion is exclusive of a one-off transaction of Rs3.45 billion in terms gross premium collected in quarter 3 of 2022 pertaining to a change of administrator of a pension scheme.

²⁴ Insurance Act (2005), Linked long-term insurance is the business of effecting and carrying out contracts of insurance under which the benefits are wholly or partly to be determined by reference to the value of, or the income from, property of any description, or by reference to fluctuations in, or in an index of, the value of property of any description.

Life insurers were solvent, as per their Actuarial Valuation Report (AVR) for 2022.²⁵ They maintained solvency margin at least equal to their minimum capital requirement, in line with the Insurance (Long-Term Insurance Business Solvency) Rules 2007. The largest companies – distinguished in terms of gross premiums – held larger capital cushion, which improved on average by 31 per cent from 2021 to 2022.

Capital available as a % of minimum capital required	Large Companies (Gross premium > Rs1 billion)	Medium Companies (Gross Premiums > Rs300 million and < Rs1 billion)	Small Companies (Gross Premiums < Rs300 million)
100 – 130%	0	1	0
130 – 250%	1	0	1
Above 250%	2	0	0

Source: Financial Services Commission

General insurance industry expanded steadily

The general insurance industry, comprising 15 insurers, strengthened its balance sheet further in the second half of 2022, with aggregate assets well above pre-pandemic levels (Chart 4.5). Its total assets expanded at an annual rate of 15.1 per cent to Rs27.7 billion as at end-December 2022, sustaining a rising trend since September 2021.

The rise in the number of general insurance policies continued relentlessly during the last two quarters of 2022 (Chart 4.6). The motor policies stood at 473,521 as at end-December 2022, up from 452,173 as at end-June 2022. The non-motor policies increased by 4,990 from end-June to end-December 2022, to reach 157,094 as at end-December 2022. Altogether, non-life insurance policies registered a higher annual growth of 6.9 per cent as at end-December 2022, compared to 5.9 per cent as at end-June 2022.

⁶⁸

²⁵ Exclusive of two life insurers, which were yet to submit their AVR.

Contents

Aacrofinancial

Stress te the Mau banking

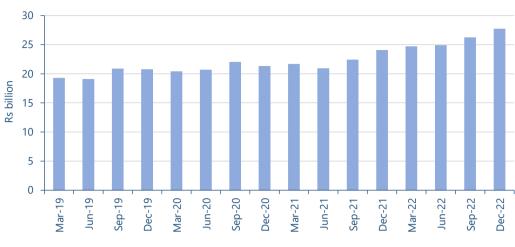
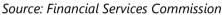
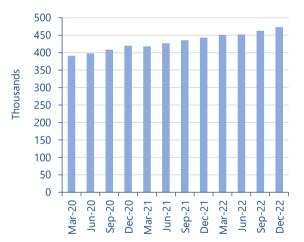


Chart 4.5: General Insurance - Value of Assets

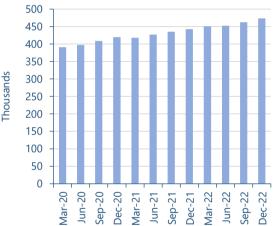












Non-life insurance activities have been bolstered since the aftermath of the peak of the pandemic in 2021. According to the Organisation for Economic Co-operation and Development (OECD), the pandemic is likely to have raised awareness and demand for certain insurance products in many countries in 2021, notably for health insurance policies.²⁶ The economic and financial impact of the pandemic highlighted, to some degree, the importance of financial safety nets and savings products. In addition, during the pandemic most insurers invested in IT infrastructure to digitalise their operations, from on-boarding of clients to reporting of claims. A more efficient business operation could be another factor of the observed growth. Moreover, high inflation in 2022 likely impacted the price of policy premiums and led to an increase in the value of assets held by general insurers.

Source: Financial Services Commission

²⁶ OECD (2023), Global Insurance Market Trends 2022.

The general insurance industry recorded improving gross premiums in the second semester of 2022 (Chart 4.7). Total gross premium collected by non-life insurers increased to Rs8.0 billion from end-June to end-December 2022, denoting a significant annual growth of 20.0 per cent though slightly lower than the 21.8 per cent registered in the first half of 2022.



Chart 4.7: Total Gross Premium

All general insurers had a solvency position above the minimum required level, as per their AVR for the year ended 2022 (Table 4.2). Small and medium-sized companies maintained on average a larger solvency margin of around 338 per cent, broadly unchanged compared to 2021. In contrast, large general insurers had a solvency position of 214 per cent on average for year 2022, around 8 percentage points below the level observed in 2021.

Table 4.2: Solvency status of General Insurers

Capital available as a % of minimum capital required	Large Companies (Gross premium > Rs1 billion)	Medium Companies (Gross Premiums > Rs100 million and < Rs1 billion)	Small Companies (Gross Premiums < Rs100 million)
100 – 150%	0	0	0
150 – 250%	3	3	0
Above 250%	0	4	2

Source: Financial Services Commission

Pension scheme industry retracted further

The pension industry recorded sustained decline in the value of its asset since the beginning of 2022, due mostly to volatility in financial markets (Chart 4.8). Aggregate assets contracted at an annual rate of 10.7 per cent to Rs64.6 billion as at end-December 2022. The combined



Contents

Macrofinancial

Source: Financial Services Commission

effects of the relatively large exposure to equity investment and declining stock market indices likely caused the fall in the value of the assets. As a result, the assets value of the pension industry as a share of GDP fell to 11.3 per cent in December 2022, from 11.9 per cent in June 2022. The number of active pension funds remained broadly unchanged as at end-December 2022 compared to end-June 2022.

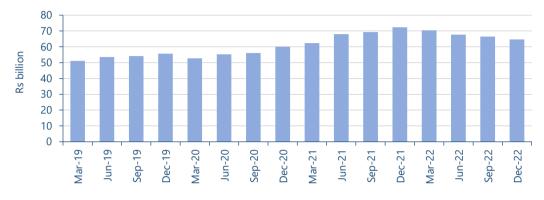


Chart 4.8: Value of Assets

The pension industry had significant exposures to equity and debt securities, the combined effects of which triggered the decline in asset value of the industry given the adverse performance of these financial assets. Non-residents accounted for around 25.7 per cent of assets, followed by the banking sector at 21 per cent, both principally in terms of equity investment (Chart 4.9). In terms of assets mix, equity investment represented around 54 per cent compared to around 36 per cent for life insurers (Chart 4.10).

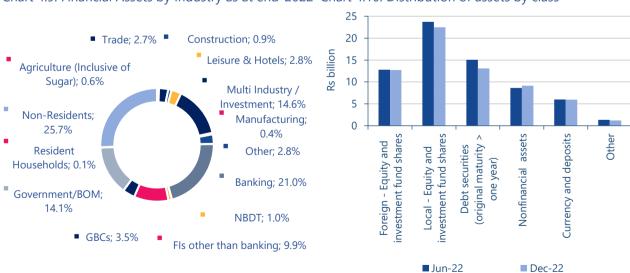


Chart 4.9: Financial Assets by Industry as at end-2022 Chart 4.10: Distribution of assets by class

Source: Financial Services Commission

Source: Financial Services Commission

71

Source: Financial Services Commission

5. Global business sector

The GB sector expanded further during the second semester of 2022, despite global uncertainties and geopolitical tensions. The aggregate assets of the GB sector reached an all-time high of US\$718 billion in December 2022. New GBC licenses and deposits went up. These deposits remained an important source of FX funding for the banking sector. Credit extended by the banking sector to the GB sector remained limited, representing around 6 per cent of total credit portfolio. However, credit risk to the sector was comparatively high but they were well provided for in terms of specific provisions. Overall, the main risks to financial stability from the GB sector remained well contained.

Risks from the GB sector, that could adversely impact the stability and soundness of the financial system, remained subdued during the second half of 2022. The sector was resilient to the headwinds from the previous listing of the country as high risk and the economic and financial repercussions of the Russia-Ukraine war. The resilience of the GB sector was also supported by its rapid pace of expansion during the period under review, with newly licensed entities growing at an annual rate of 11.4 per cent. The GB sector nonetheless remained vulnerable to external shocks.

The GB sector is important to the economy, to which it is intricately connected even though most of its assets are invested abroad. It contributed a share of 8.5 per cent in the country's GDP, with a real growth rate of 3.3 per cent in 2022. Its contribution to the economy is also measured by jobs generated in the MIFC, regulatory costs paid by GBCs and tax revenue. Direct employment in the GB sector is estimated at around 5,000 comprising employment in Management Companies (MCs). Moreover, the sector generates indirect employment in other economic areas such as banking, professional services (e.g., legal and audit services) and the insurance sector.

The aggregate assets of the GB sector have continued to expand, growing at an annual rate of 5.3 per cent to reach US\$718 billion in December 2022 (Chart 5.1). The majority of the assets was held in the form of investments in non-resident enterprises and was mostly financed by non-residents. As a result, net income and capital flows by GBCs had a positive impact on the balance of payments of the country.

72





Chart 5.1: Total assets of GBC as at end-December

Source: Financial Services Commission

Global Business activities picked up momentum

Several initiatives have been launched to bolster the GB sector and positive results were noted, as implied by the increase in the number of new GBC licences issued. In addition, the delisting of Mauritius from the Financial Action Task Force (FATF) list of countries under increased monitoring, the UK's and the EU's lists of high-risk countries along with the pickup of the global economy have led to a significant rise of 14.0 per cent in the average number of new GB licenses issued monthly. The growth momentum was, however, impeded by the global disruptions arising from the Russia-Ukraine war.

The MIFC continued to enhance its value proposition and attractiveness with the introduction of the Variable Capital Company (VCC) and the Global Shared Service (GSS) in 2022. A VCC is a type of company that conducts its activities through its sub-funds and Special Purpose Vehicles (SPVs). A sub-fund can operate as a Collective Investment Scheme (CIS) while another sub-fund of the same VCC Fund can be structured as a Closed End Fund (CEF). A VCC Fund provides a more flexible option than a Protect Cell Company or Umbrella Fund, in the sense that both a CIS and CEF can be accommodated under one structure. In addition, the sub-fund of a VCC Fund may have a separate legal recognition from that of the VCC Fund.

The Financial Services (Global Shared Services) Rules 2022 was made by the FSC in December 2022, after consultation with stakeholders. A GSS is a new type of activity that enables an entity within a group to provide certain facilities such as record-keeping, payment of bills, tax advisory and other services to subsidiaries and affiliates within the group, subject to prior approval from the FSC.

The recent acquisition of large MCs by big international players, and the consolidation thereof, may furthermore uphold the repute of the MIFC amongst the global community. These types

Contents

lacrofinancia

Contents

Macrofinancial

Stress testing the Mauritian banking sector

of acquisitions may, however, result in greater concentration of risks within the GB sector. To that effect, the FSC adjusted its supervisory framework to ensure effective oversight of its licensees operating under the global business regime.

The role of supervisory colleges is *sine qua non* in developing a comprehensive understanding of the risk profile of these international groups and strengthening the existing regulatory framework to address key supervisory issues. Multiple collaborative exercises were conducted with other jurisdictions in 2022. In essence, these exercises fostered mutual understanding of the regulatory best practices across jurisdictions, with the broad aim of upgrading current supervisory tools and addressing pressing challenges amidst the emergence of new and technologically-dynamic products, such as activities under the FinTech.

The African continent has become a destination of choice for investments in various areas, through GBCs in particular. The inclusion of South Africa in the FATF list of jurisdictions under increased monitoring in February 2023 could impact GB activities in the MIFC.

Risks from the GB sector were contained

The interconnectedness between the GB sector and the banking system can be a source of vulnerability to financial stability. The key drivers of risk from the GB sector to banks can take the form of funding, liquidity and credit risk. In terms of funding risk, the banking sector remained highly reliant on GBCs for FX funding, accounting for 52.7 per cent of total FX deposits as at end-December 2022. However, it is noteworthy that this dependence has shrunk over the years, potentially reflecting a change in the funding strategy of banks to source their FX funds.²⁷ In particular, banks have been expanding their business with non-residents. Of note, the ratio of non-resident FX deposits to total FX deposits rose to 31.9 per cent in 2022 compared to an average of 25.5 per cent during the period 2015 to 2019.

The robust regulatory framework coupled with prudent risk management practices by banks protected the banking system from the volatile nature of GBC deposits. From a systemic liquidity risk perspective, GBC deposits are largely unsecured wholesale funding with short-term maturities, which can be a source of risk to financial stability. The volume of bank deposits from GBCs has maintained an upward trend during the second semester of 2022, reaching US\$13.1 billion as at end-December 2022, from US\$11.8 billion as at end-June 2022. The introduction of the LCR in 2017 had significantly improved the capacity of the banking system to respond to shocks associated with the underlying volatility of GBC deposits. The share of

²⁷ The share of FX GBC deposits to total FX deposits averaged 60.7 per cent for the period 2015 to 2019. Comparatively, this ratio averaged 53.5 per cent for the period 2020 to 2022.

FX High-Quality Liquid Assets (HQLA) to FX GBC deposits stood at 64.1 per cent as at end-December 2022, representing an important buffer for banks in case of liquidity stress.

The quality of the bank credit portfolio for GBCs deteriorated in the second semester of 2022, indicating a rise in credit risk in the GB sector. The NPL ratio for the GB sector was elevated relative to pre-pandemic levels. Credit risk from GBC exposures was largely influenced by the global macroeconomic environment. However, specific provisions for the sector were maintained at reasonable levels.

Overall, risk from the GB sector were subdued despite elevated uncertainties and tighter financial conditions on the global front. Activity in the sector was well supported by the flow of investments to conventional markets. The growing number of GBCs and rising deposits contributed to contain risk from the GB sector to the banking sector. Credit risk was elevated but adequate provisions have been set aside.

A comprehensive framework for the close monitoring of risks from the GB sector has been designed as part of the regular collaboration between the Bank and the FSC. Risks to financial stability posed by the GB sector are wide ranging. They can be transmitted to the banking sector and the economy rapidly. The framework will assist in the effective assessment and monitoring of the risks. It will also act as an early warning system and support timely policy responses, with the broader objective of upholding the stability of the financial system.

Rise in live GBCs

The GB sector consisted of 12,628 live GBCs as at end-December 2022, higher by 1.2 per cent, relative to 12,483 as at end-December 2021. The number of live GBCs peaked at 12,939 in June 2022, denoting cases of conversion of GBC2s to GBCs as part of the phasing out of the previous licensing regime. The drop observed in July of each year is attributed to the non-renewal of the GB licences, which takes place annually in that month (Chart 5.2).

Fluctuations in the number of live GBCs during 2020 and 2021 – caused mainly by the pandemic and the listings of Mauritius – moderated in 2022 following the delisting of the jurisdiction from the FATF list in October 2021 and the phasing out of the GBC2 regime. The latter led to the conversion of 617 GBC2s into GBCs. A smoothing out of these fluctuations revealed that the overall upward trend in the net number of GBCs has been maintained in the second semester of 2022 (Chart 5.2).



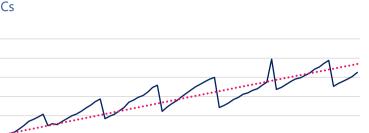
Macrofinancial environment

Contents

Financial undness of ouseholds corporates

Dec-22

Jun-22



Jun-19

Jun-20

······ Log. (Number of live GBCs)

Dec-20

Jun-21

Dec-21

Dec-19



13,500 13,000

12,500 12,000 11,500 11,000 10,500 10,000 9,500

Number of live GBCs

Source: Financial Services Commission

Jun-15

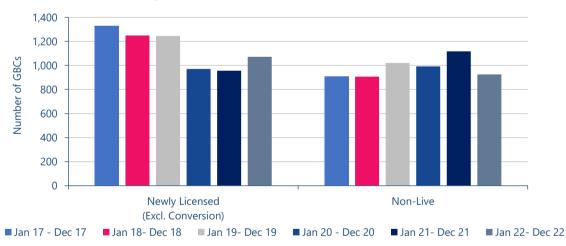
4

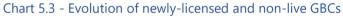
Dec.

The total number of new GBC licences (exclusive of conversion cases) issued during 2022 was 1,073 – though still below the pre-pandemic trend – showing an annual increase of 11.4 per cent. On a positive note, the number of non-live GBCs dropped to 926 during 2022 compared to 1,118 in 2021, representing a drop of 17.2 per cent (Chart 5.3) and roughly matching the pre-pandemic trend.

Jun-18

Dec-18





Jun-16

Dec-15

Dec-16

Number of live GBCs

Jun-17

Dec-17

Source: Financial Services Commission

The main target investment region of the GB sector continued to be Africa in the last semester of 2022, outpacing India. The sector counted 5,371 Africa-focused GBCs, representing 42.5 per cent of total GBCs, while India-focused GBCs represented 31.4 per cent of the total. The number of live GBCs investing in India continued to decline at an annual rate of 3.5 per cent for the year ended December 2022 (Chart 5.4). The number of live GBCs targeting Africa also recorded a setback, with an annual contraction of 1.8 per cent in December 2022.

Financial Stability Report - June 2023

76



Financial bundness of nouseholds d corporate

Financial undness of oosit-taking istitutions

Non-bank financial ervices sector

Global business sector

Stress testing the Mauritian banking sector

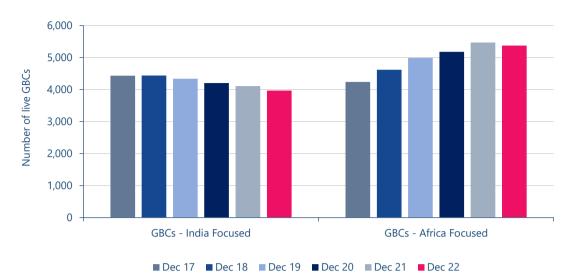
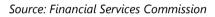


Chart 5.4: Live GBCs targeting India vs Africa



There was an expansion in the number of new licences issued to both India- and Africa-focused GBCs in 2022 (Chart 5.5). Newly licensed GBCs targeting the Indian market progressed at an annual rate of 7.7 per cent and by 19.2 per cent for those focusing on the African market.

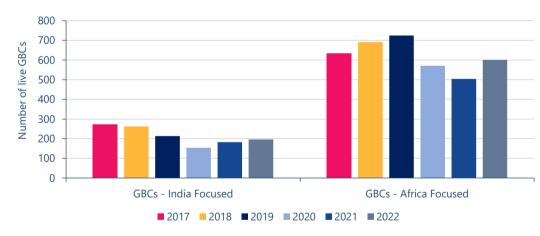
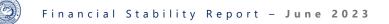


Chart 5.5 - Newly Licensed GBCs targeting India vs Africa

Investment flows subdued amid global uncertainties

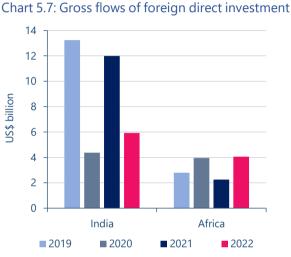
Investment flows by the GB sector to Africa still lagged behind those towards India, despite a growing number of Africa-focused GBCs (Charts 5.6 and 5.7). The predominance of the Indian market for investment flows from the MIFC were mostly in terms of Foreign Portfolio Investment (FPI). However, the FPI into India registered an annual contraction of 2.6 per cent in December 2022, while it fell by 7.7 per cent for Africa. This decline in the FPI broadly reflected the slump of nearly 20 per cent in MSCI World Index during the same period.



Source: Financial Services Commission

Volatility was observed in the gross flow of Foreign Direct Investment flows (FDI). The FDI, in contrast to the FPI, is generally used to finance specific projects through private equity. Given that the investment size of projects and opportunities for such investments vary, the nature of FDI flows tends to fluctuate from year to year. Total FDI flows into Africa expanded at an annual rate of 80.3 per cent, while those towards India contracted by 50.6 per cent during the period ended December 2022. The FDI flows in India for 2020 and 2022 were relatively low, likely to have been adversely impacted by the pandemic and the economic effects of the Russia-Ukraine war.





Source: Financial Services Commission

Strong connection between the banking system and the GB sector

The GB sector is closely associated with the banking sector, primarily in terms of deposits, loans and other banking products. The mainstream business model of GBCs is typically the Special Purpose Entities model (SPE), whereby funds from non-residents are channelled through the MIFC for investment towards the Asian and African regions. This is reflected in the breakdown of the monetary and financial assets of the GBCs by institutional sectors (Chart 5.8). The largest asset exposures of GBCs were to non-residents, representing 73.0 per cent, followed by cross shareholding between GBCs, at 25.0 per cent, indicating the presence of GBC group structures operating in the sector. The exposures of GBCs to domestic institutional sectors were essentially in the form of deposits with banks.



Contents

Aacrofinancial

Stress te the Mau banking

Source: Financial Services Commission

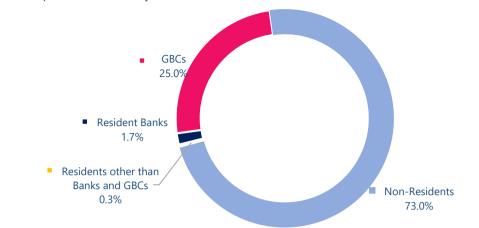


Chart 5.8: Exposure of GBCs by institutional sector as at end-December 2022

Source: Financial Services Commission

GBC deposits resumed its long-term upward trend

The GB sector is an important source of funding for the banking sector and the short-term nature of GBC deposits represents a source of risk that has to be prudently managed. The robust liquidity management framework of banks in conjunction with the regulatory framework on liquidity have enabled them to weather any significant withdrawal of GBC deposits across time. For instance, the drop of US\$912.9 million observed in GBC deposits from November to December 2022 was fully met by banks from their liquid assets. Such events have recurred across time and banks were able to meet the deposit outflow without any liquidity strain. Moreover, banks have not had recourse to the FX reserves of the country to fund any outflow of GBC deposits.

GBC deposits represented around 34.9 per cent of total banking sector deposits as at end-December 2022, broadly similar to the pre-pandemic proportion. These deposits were a major source of FX funding for banks, representing around 52.7 per cent of their total FX deposits. GBC deposits rose to US\$13.1 billion as at end-December 2022 relative to US\$11.8 billion as at end-June 2022, reflecting growing GB activities and sustained confidence of GB operators in the MIFC (Chart 5.9).

79

Contents

Financial coundness of households id corporate

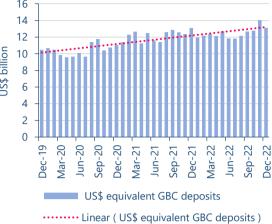
Financial bundness of posit-taking nstitutions





Chart 5.9: Evolution of GBC deposits a. Rs equivalent GBC deposits

b. US\$ equivalent GBC deposits



Source: Bank of Mauritius

Deposits held by GBCs are mostly deployed in short-term liquid assets to mitigate liquidity risk. They are generally deposited with banks or invested in low-risk sovereign FX securities to ensure that banks have adequate liquid FX buffers against the risk of sudden withdrawal of funds (Chart 5.10). The volatile nature of these funds precludes their deployment in longer-term assets.

The ratio of FX GBC deposits to FX liquid assets declined to 115.1 per cent as at end-December 2022, from 121.4 per cent as at end-June 2022. An analysis of the stickiness of the stock of GBC deposits for the period October 2018 to December 2022 revealed that around 83 per cent of the total stock of GBC deposits tend to be stable. Overall, banks maintained resilient liquidity buffers to cushion possible shocks emanating from large withdrawals of GBC deposits.

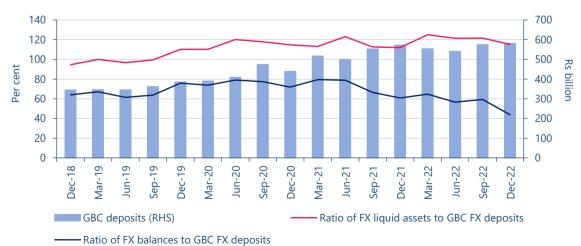


Chart 5.10: Deployment of GBC deposits

Source: Bank of Mauritius

80

Contents

Aacrofinancial

Global

Stress testing the Mauritian banking sector The FSC uses a risk map to monitor risk arising from the intricate nexus between the banking sector and the GB sector. The risk map provides an estimate of the likelihood of GBCs leaving the jurisdiction and measures the risk-impact characteristics of GBC deposits. The risk matrix showed that an estimated 24.0 per cent of GBCs were classified under the medium-high and high risk category of leaving the jurisdiction in December 2022. This implies there was a significant risk that 35.8 per cent of GBC deposits could leave the jurisdiction, roughly the same as in June 2022, and which could impact the banking sector. However, as mentioned earlier, banks have sufficient liquidity buffers to withstand such liquidity strains.

The risk map also revealed that 6.2 per cent of GBC deposits had a high risk of being withdrawn with an underlying high impact on the banking sector. It may further be underscored that GBC deposits in the high risk-high impact category were relatively low and stood at 6.2 per cent, marginally lower than in June 2022.

		Sub-Total Risk scores					
Irisdictio	High Risk	12.3	0.0	3.2	2.4	0.5	6.2
Risk Score – GBCs leaving the Mauritian jurisdiction	Medium- High Risk	11.7	0.1	5.3	4.2	1.2	0.9
Cs leaving th	Medium- Low Risk	14.2	0.1	5.1	3.6	2.3	3.1
ore – GB(Low Risk	61.8	0.3	23.6	16.3	7.8	13.8
Risk Sc		Sub-Total Impact Score	0.5	37.2	26.5	11.8	24.0
			Low Impact	Medium- Low Impact	Medium Impact	Medium- High Impact	High Impact
Impact Score – Deposit withdrawals							

Table 5.1: Risk map – per cent of total GBC deposits

Source: Financial Services Commission

The exposure of the banking sector to the GB sector was also in the form of credit, with a share of 6.4 per cent to total outstanding credit during the last semester of 2022. Overall, banks' exposure to the high-risk segment of the GB sector was low and, therefore, credit and market risks remained well contained (Table 5.1). The credit exposure of the banking sector to GBCs

followed past trend, despite growing GBC deposits. Bank loans granted to the GB sector fell at an annual rate of 3.1 per cent to US\$1.4 billion as at end-December 2022 (Chart 5.11).

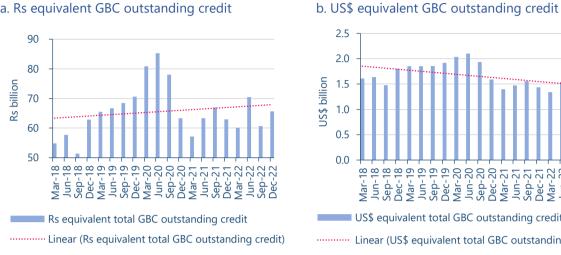
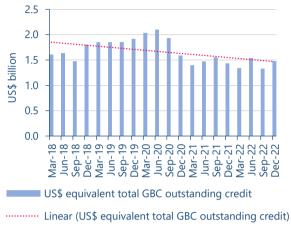


Chart 5.11: Evolution of GBC outstanding credit a. Rs equivalent GBC outstanding credit



Source: Bank of Mauritius

Banks' GBC credit portfolio registered a setback in the second semester of 2022, with a rising NPL ratio. The NPL ratio rose to 18.2 per cent in December 2022, from 17.3 per cent in June 2022, outpacing both the NPL ratios of the credit portfolio outside Mauritius and that of the banking sector (Chart 5.12). The ratio increased mainly due to a higher contraction in outstanding GBC credit facilities (the denominator) relative to the marginal drop in the nominal level of impaired credit (the numerator).

The GB sector had a relatively low share in the total credit portfolio but its impaired credit represented around 28.5 per cent of the total impaired credit of the banking sector (Chart 5.12). Specific provisions set aside for NPLs in the GB sector stood at 66.0 per cent as at end-December 2022, providing an adequate buffer against credit risk.



Contents

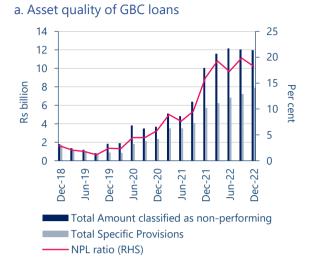
Macrofinancial

Global ness sector

Stress testing the Mauritian banking sector

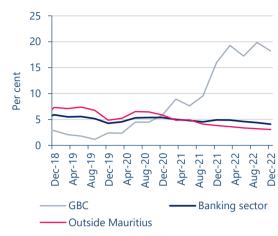


Chart 5.12: Evolution of GBC NPLs



Source: Bank of Mauritius





| Macrofinancial of environment

Contents

Financial soundness of households and corporates

Financial oundness of posit-taking istitutions

> Non-bank financial ervices sector

ting Global tian business sector sector

Stress testing the Mauritian banking sector



6. Stress testing the Mauritian banking sector

The stress test results indicated greater resilience of the banking sector in the second half of 2022, built on stronger capital and liquidity buffers. The resilience was tested through numerous hypothetical but plausible scenarios based on shocks to the credit portfolios, interest rate, exchange rate and liquidity positions of banks. Most banks demonstrated robustness in absorbing the shocks. A few banks fell within the vulnerability zone, but the gap between the regulatory limits and the stressed outcomes was lower. As the domestic economy is firmly set on its growth path, banks will continue consolidating financial buffers to cushion risks to financial stability. The domestic macroeconomic and financial environment is not expected to further raise risks to financial stability during 2023, though risk from external shocks should not be ruled out.

The second half of 2022 was marked by further deterioration of the global macrofinancial environment. But solid recovery of the domestic economy enabled the banking sector to consolidate its buffers and improve its financial metrics. These factors have bolstered the resilience of the banking sector to strains and shocks in an environment where risk to the stability of the financial system in Mauritius remained elevated.

Risks related to rising interest rates, indebtedness, liquidity and asset prices of the household and corporate sectors were some of the key drivers of risk to financial stability, both domestically and globally. The impact of high and rising interest rates on financial institutions could not be overlooked, as balance sheets are very sensitive to monetary policy tightening though to various degrees. Climate change is another factor that has elicited various streams of work among central banks and financial regulators – including at the Bank – to assess the implications for financial stability.

So far, the banking and financial system in Mauritius has been resilient to the series of shocks since the onset of the pandemic in early 2020 and the elevated risks to financial stability during 2022. The strengthening of regulatory framework for the banking and financial sector, particularly after the global financial crisis of 2008, has been a catalyst towards enhancing the capacity of the sector to endure shocks. In addition, the buffers built over time, prudent risk management practices as well as the support and flexibility provided by the Bank and the FSC have altogether contributed to uphold the soundness of the banking and financial system. Banks, particularly in the vulnerable zone as determined by the past few stress test exercises, have continued to prop up their capital base. The post-shock CARs of these banks improved, with a lower gap between the regulatory CAR limits and the stressed CAR.



nancial Idness of Iseholds



The domestic macroeconomic and financial environment is not expected to induce significant increases in risk to financial stability during 2023, though risk from external shocks should not be ruled out. Economic sentiment was broadly stable, despite global economic prospects projected to be lower in 2023 than in 2022 as reflected in the revised growth forecast of the IMF. The pace of growth of domestic economic activity is estimated to moderate in 2023 relative to 2022, but several key macroeconomic indicators are projected to continue improving such as subsiding inflation, receding pressure on the exchange rate and lower unemployment rate.

The Bank regularly assesses the resilience of the banking sector to risks based on a series of stressed scenarios and sensitivity shocks. The stress test exercise measures the ability of the banking sector – as well as that of individual banks – to withstand macroeconomic shocks and a combination of shocks to credit portfolios, interest rate, exchange rate and liquidity. The aim is to gauge the capacity of the banking system to continue delivering its services to the economy during periods of economic and financial strains.

Stress test results

The stress test results – based on December 2022 data – demonstrated that the banking sector is expected to continue functioning normally even under severe financial strains, as the capital and liquidity buffers were sufficiently robust to weather a major downturn in economic and financial conditions. Most banks displayed commendable soundness, with the exception of few banks that exhibited weaknesses under some scenarios, particularly under the hypothetically severe ones. Of note, under the three stressed test scenarios on economic growth, one bank showed vulnerability but its breach of the minimum adjusted CAR of 12.5 per cent was very marginal. Even under the combined shocks to economic growth, interest rate and exchange rate, the banking sector was resilient with only one bank breaching its adjusted CAR minimally.

Therefore, while risk to financial stability edged up in the second half of 2022, the banking sector was in a stronger position to face heightened pressures emerging in the form of global economic uncertainties, market volatility, rising interest rates and inflation as well as exchange rate pressures. The degree of vulnerabilities in the banking system receded towards the end of 2022, as demonstrated by the results of the stress test exercises conducted during 2022. After rising in the first semester of 2022, the number of banks that exhibited vulnerabilities declined in the second half. Moreover, the breaches to the adjusted CAR and LCR were lower



Macrofinancial environment

Financial undness of iouseholds d corporates

inancial undness of ositt-taking stitutions

Non-bank financial services sector

ted

relative to the first semester.²⁸ The detailed outcome of the stress test exercise is elaborated in the ensuing sections.

Stress Testing the Mauritian Banking Sector

Macroeconomic scenario analysis

Three hypothetical scenarios – comprising macroeconomic and idiosyncratic shocks – were constructed to test for the resilience of the banking sector. These scenarios – namely, baseline, moderate and severe – assume growing degree of severity of the shocks. They do not represent and should not be considered as macroeconomic forecasts.

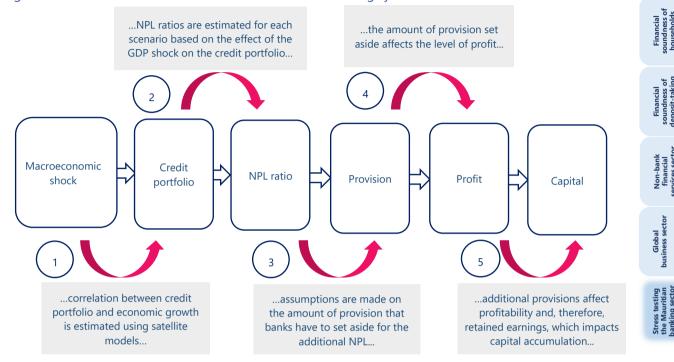
In the baseline scenario, the economy was assumed to grow by 5 per cent in 2023 on the back of buoyant activity in key economic sectors. The growth momentum in the tourism industry was projected to continue its upward trend, supported by sustained demand from international travellers. The '*Manufacturing*' sector was expected to perform well in 2023 backed by strong demand from main export markets. Activity in the '*Construction*' sector was estimated to expand further, buoyed by the implementation of major infrastructure projects. High inflation and interest rate hikes are, however, anticipated to curb private consumption and investment in the first semester of 2023.

The moderate scenario assumed a stagnating economy with near-zero growth in 2023. Escalating geopolitical tensions – emanating principally from the Russia-Ukraine war – were presumed to further fuel global economic uncertainties. This would ultimately negatively spill over on external demand and key domestic economic sectors sensitive to external shocks, such as the tourism, manufacturing and financial services sectors. Progress achieved in terms of tourist arrivals and exports would be slowed down.

As for the severe scenario, the domestic economy is assumed to contract by 3 per cent in 2023. Supply chain disruptions are presumed to intensify. An escalation of geopolitical tensions, high inflation accompanied by further increases in global interest rates, the much-feared economic recession in several countries are altogether assumed to materialise. These effects are transmitted to the domestic economy, with several sectors severely impacted. Activity in the 'Construction' and 'Manufacturing' sectors are repressed. Further, the tourism industry is assumed to be significantly undermined by much lower-than-expected tourist arrivals from main source markets. Persistent high inflation and interest rates would induce additional strain on the debt servicing capacity of households and corporates.

²⁸ The adjusted CAR is 12.5 per cent and refers to the minimum CAR of 10 per cent plus capital conservation buffer of 2.5 per cent.

The above macroeconomic shocks are transmitted to the banking sector mainly through the credit portfolio before hitting banks' capital base and, thus, solvency. The transmission channel is simplified for illustrative purposes below (Figure 1).





Source: Bank of Mauritius

The banking sector was able to absorb the three macroeconomic shocks and sustain the flow of credit to the economy, as depicted by the stress test results based on December 2022 data (Chart 6.1). The capital buffers of most banks were adequate to endure all the three shocks. Their post-shock CAR was above 15 per cent in all three scenarios (Table 6.1).

All banks were able to meet their regulatory CAR in the baseline and moderate scenarios. The banking sector post-shock adjusted CAR declined to 19.1 per cent in the baseline scenario and to 18.5 per cent in the moderate scenario, from the actual adjusted CAR of 19.5 per cent as at end-December 2022. In the severe scenario, the banking sector post-shock adjusted CAR fell to 17.9 per cent, where nearly all banks were able to maintain their CAR above the regulatory minimum adjusted for capital conservation buffer at 12.5 per cent. However, one bank slightly breached the prescribed threshold while remaining well above the 10 per cent minimum CAR.



Contents

Aacrofinancial

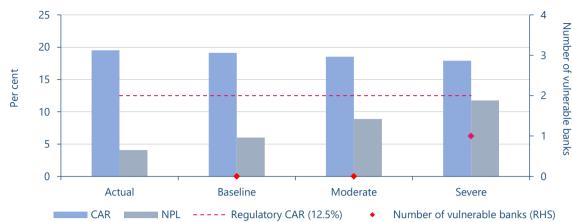


Chart 6.1: Macroeconomic shock results - sector level results

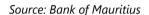


Table 6.1:	Bank-wise	distribution	of r	oost-shock CAR
10010 0.1.	Durine Wibe	anstribution		

	Number of banks				
Post-shock CAR	Baseline scenario	Moderate scenario	Severe scenario		
<10%	0	0	0		
>10%, <12.5%	0	0	0		
>12.5%, <15%	2	3	4		
>15%, <20%	8	7	7		
>20%	9	9	8		

Source: Bank of Mauritius

Interest rate and exchange rate shocks

Macroeconomic shocks have implications on key financial variables, accompanied by feedback loops. The Bank's stress test framework considers interactions among selected key variables to assess the resilience of the banking sector. Two scenarios are designed that include interest rate and exchange rate shocks to complement the macroeconomic scenarios.

The interest rate and exchange rate shocks were applied in combination to the aforementioned baseline and moderate macroeconomic scenarios (Table 6.2). Under hypothetical economic conditions, the rise in market interest rates by 250 basis points is assumed to be insufficient to normalise conditions on the FX market where demand persistently outstrips supply, thereby failing to abate pressures on the exchange rate. The assumptions made under these two scenarios for interest rate and exchange rate should not be construed as forecast for these variables. For the severe scenario – characterised by an economic contraction – the policy rate would less likely be hiked and is, therefore, not simulated.



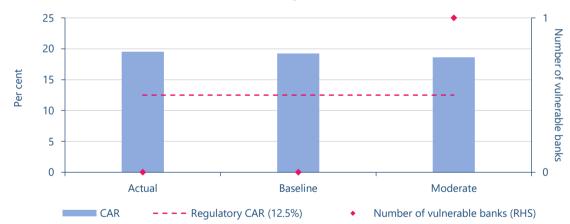
	Baseline scenario	Moderate scenario
GDP growth	5 per cent	Zero growth
Interest rate hike	250 basis points	250 basis points
Exchange rate depreciation	4 per cent	8 per cent

 Table 6.2: Interest rate and exchange rate scenarios

Source: Bank of Mauritius

The results of the stress test confirmed the robustness of the capital buffers of the banking sector to withstand the combined macroeconomic shocks. The results also suggest that the banking sector successfully endured the monetary policy tightening cycle in the second half of 2022. The ability of the banking sector to endure these shocks was mainly due to their robust risk management framework as well as the buffers build over time. In the baseline scenario, all banks were able to able to meet the regulatory adjusted CAR limit. In the moderate scenario, with the exception of one bank, the remaining banks maintained their post-shock adjusted CAR above their respective regulatory capital minimum (Chart 6.2). The breach of the adjusted CAR by the vulnerable bank was very marginal.





Source: Bank of Mauritius

Sensitivity analysis

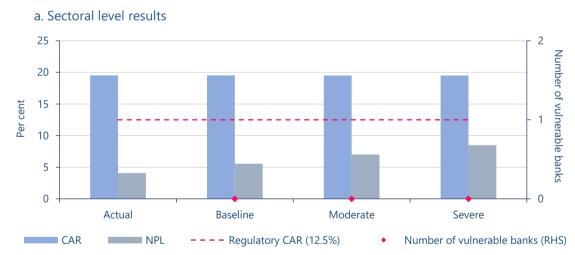
A number of single-factor sensitivity stress tests were conducted to assess the ability of the banking sector to absorb idiosyncratic shocks. The sensitivity analysis used a top-down approach for shocks to sectoral credit risk, credit concentration risk and liquidity risk. A reverse stress test was also performed to evaluate the strength of banks' capital buffers.



Sectoral credit risk

A sensitivity analysis was performed on the sectoral performing loan portfolio as at end-December 2022 data. The 'Agriculture', 'Manufacturing', 'Construction', 'Wholesale and retail trade', 'Accommodation and food services' and 'Housing' sectors – representing the largest credit portfolios of the banking sector – were selected for the sectoral credit sensitivity stress testing. Three scenarios – baseline, moderate and severe – assumed that a proportion of the performing loan portfolio becomes impaired with increasing degree of severity. The baseline scenario assumed that 4 per cent of the performing credit portfolio turned impaired and this proportion is raised to 8 per cent under the moderate scenario and to 12 per cent under the severe scenario.

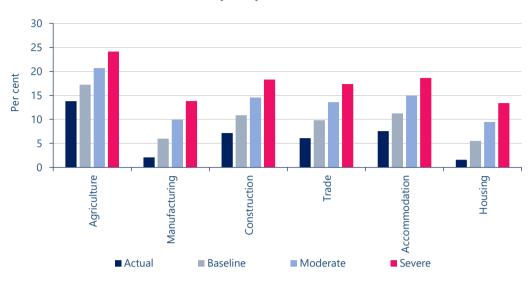
The results confirmed that the capital buffers of all banks were sufficient to withstand the sectoral credit shocks (Chart 6.3a). The '*Manufacturing*' and '*Housing*' sectors recorded the highest increase in post-shock NPL ratio, followed by the '*Wholesale and retail trade*' sector. The '*Agriculture*' sector would hold the highest post-shock NPL ratio given that its end-December 2022 NPL ratio was already high (Chart 6.3b).





Source: Bank of Mauritius





b. Sector-wise NPL ratio sensitivity analysis

Source: Bank of Mauritius

Credit concentration sensitivity

Credit concentration risk was investigated by considering the hypothetical impairment of top performing single borrowers which were non-governmental entities and not listed on the stock exchange. Three shock scenarios were applied. The baseline scenario assumed that the top single borrower of each bank defaulted, while for the moderate and severe scenarios the number of borrowers defaulting rose to the top five and the top ten for each bank, respectively.

The credit sensitivity results revealed that the banking sector remained resilient to the credit concentration shocks. The aggregate post-shock adjusted CAR declined from 19.5 per cent (actual) to: (a) 19.2 per cent in the baseline scenario; (b) 18.4 per cent in the moderate scenario; and (c) 17.8 per cent in the severe scenario (Chart 6.4).

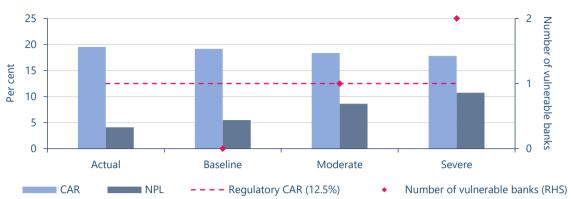
Overall, most banks' capital buffers indicated commendable resilience in the credit concentration sensitivity exercise while a few banks displayed signs of vulnerability. All banks were able to meet their respective regulatory adjusted CAR limit in the baseline scenario. For the moderate scenario, one bank breached the regulatory threshold of 12.5 per cent while in the severe scenario, two banks were unable to meet their respective regulatory minimum adjusted CAR. However, these vulnerable banks registered post-shock adjusted CAR above the 10 per cent minimum CAR. It is noteworthy that a fewer number of banks breached the minimum adjusted CAR compared to the results of June 2022. Altogether, most banks recorded post-shock adjusted CAR above 15 per cent in all three scenarios (Table 6.3).



Contents

Global business sector

> Stress the Ma ankin





Source: Bank of Mauritius

Table 6.3: Credit sensitivity risk - bank-wise distribution of post-shock CAR

	Number of banks			
Post shock CAR	Baseline scenario	Moderate scenario	Severe scenario	
<10%	0	0	0	
>10%, <12.5%	0	1	2	
>12.5%, <15%	3	3	3	
>15%, <20%	7	6	5	
>20%	9	9	9	

Source: Bank of Mauritius

Liquidity risk

Liquidity stress test was conducted to assess the capacity of banks to withstand liquidity outflows in FX, based on five scenarios relating mainly to deposits of the GB sector (Table 6.4). GBC deposit is one of the major components of banks' total deposits – accounting for around 35 per cent of total deposits – and is intrinsically highly volatile. FX deposits held by both residents and non-residents were also assessed. Stress testing these FX deposits is important to evaluate the resilience of banks, especially the foreign banks, against potential FX deposit outflows.

The five scenarios examined the capacity of banks to withstand FX deposit withdrawals against their adjusted FX HQLA. The Adjusted HQLA is determined by combining the FX HQLA (as per LCR definition) and FX interbank deposits held.²⁹ A bank is considered vulnerable if its Adjusted HQLA becomes negative under stressed conditions.

Contents

lacrofinancial

²⁹ FX interbank deposits are mostly FX deposits kept by banks with banks abroad.

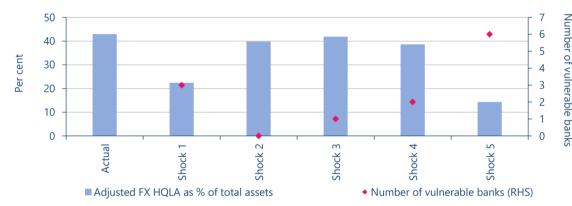
Shocks	Description
1	Assume 35 per cent one-off FX deposit withdrawal
2	Assume largest GBC depositor withdrawal
3	Assume riskiest GBC depositor withdrawal
4	Aggregate of Shocks 2 and 3 (provided largest GBC depositor is not the riskiest one as well)
5	Aggregate of Shocks 1, 2 and 3

Table 6.4: Liquidity risk – FX deposit withdrawals by GBCs

Source: Bank of Mauritius

The results showed resilience of the banking sector under all five liquidity shocks with postshock adjusted FX HQLA in the positive territory. Most banks had sufficient FX HQLA to sustain the shocks. At shock 1, three banks would display signs of vulnerability while at shock 2, all banks would be resilient. As for shock 3 and shock 4, one bank and two banks, respectively, would see their post-shock adjusted FX HQLA turn negative. Under shock 5, six banks would have a negative adjusted FX HQLA (Chart 6.5).





Source: Bank of Mauritius

The banking sector showed commendable resilience to the five liquidity shocks. The postshock Adjusted FX HQLA remained in positive territory but was highly dispersed above the median under the five shocks. Two upper outliers were registered – one in Shock 2 and one in Shock 4 – while no lower outliers were recorded in the overall shocks. This indicated that the liquidity buffers of the banking sector were sufficient and strong enough to weather FX liquidity shocks.

The number of banks falling in the negative territory for post-shock adjusted FX HQLA remained quasi unchanged from the June 2022 exercise. However, it is noteworthy that most vulnerable banks impacted in the liquidity stress test held minimal shares of the banking sector assets. D-SIBs and foreign banks – representing around 98 per cent of GBC deposits – were in better position to absorb and withstand sudden outflow of GBC deposits. Considering the

93

Macrofinanc environmer

Contents

Financial soundness c households and corporat

Global ness sector degree of stickiness of the GBC deposits and access to lines of credit by the foreign-owned banks with their parent banks and/or financial institutions, the liquidity risk remained at manageable level.

Reverse stress test

The reverse stress test examined the maximum level of NPLs that banks would be able to absorb for their CAR to meet the minimum regulatory limit of 12.5 per cent. The additional NPLs is assumed to come from the impairment of existing performing loans of each bank.

The results of the reverse stress test confirmed the resilience of the banking sector to absorb additional impairment of the credit portfolio. The distribution of the '*proportion of performing loans to be classified as impaired*' tended mostly above 30 per cent as at end-December 2022. This implies that many banks' capital buffers could absorb additional impairments well above the sector average.

Banks have strengthened their capital buffers during the second semester of 2022, resulting in higher shock absorbency. As at end-December 2022, banks' capital buffers would be able to absorb from 7.8 per cent (1.5 per cent as at end-June 2022) to 201.3 per cent (137.8 per cent as at end-June 2022) impairment of their performing loans portfolio (Chart 6.6). It should be noted that 15 out of 19 banks could withstand more than 15 per cent of their performing loans turning impaired, such that their post shock CAR reached their respective regulatory CAR limit.



Chart 6.6: Implied percentage of performing loans to be classified as non-performing

Source: Bank of Mauritius

Annex A: Financial Soundness Indicators

FSIs of other depository corporations ^{a, b, c}

				Per cent
Core set of FSI	Jun-21	Dec-21 ^c	Jun-22 ^c	Dec-22 ^c
Capital-based		-	-	
Regulatory capital to risk-weighted assets	19.7	20.7	20.3	20.6
Regulatory Tier 1 capital to risk-weighted assets	18.3	19.4	19.0	19.3
Non-performing loans net of provisions to capital	8.2	8.9	8.8	8.3
Common Equity Tier 1 capital to risk-weighted assets ¹	16.2	19.0	18.6	19.0
Tier 1 capital to assets ¹	9.1	9.1	9.1	9.0
Asset quality		ſ	ſ	
Non-performing loans to total loans ²	5.6	5.8	5.6	4.9
Loan concentration by economic activity ¹	50.8	49.6	44.8	43.8
Provisions to nonperforming loans ¹	63.9	61.3	60.0	60.2
Sectoral distribution of loans to total loans ³				
Interbank loans	5.0			
Other financial corporations	9.8			
Non-financial corporations	26.4			
Other domestic sectors	21.7			
Non-residents	37.0			
Earnings and profita	bility			
Return on assets	1.3	1.3	1.3	1.6
Return on equity ⁴	12.7	10.5	11.2	14.0
Interest margin to gross income ⁴	69.3	65.9	68.6	70.1
Non-interest expenses to gross income ⁴	43.2	44.6	45.1	40.6
Liquidity				
Liquid assets to total assets ⁴	27.3	48.6	47.8	45.5
Liquid assets to short-term liabilities ⁴	30.5	54.3	53.6	50.8
Liquidity Coverage Ratio ¹	246.1	236.3	235.5	238.3
Sensitivity to marke	t risk	<u>.</u>		
Net open position in foreign exchange to capital	2.2	1.5	1.3	1.5

Macrofinancial environment

Global business sector



Encouraged set of FSI	Jun-21	Dec-21 ¹	Jun-22 ¹	Dec-22 ¹
Capital to assets ³	10.3			
Credit growth to private sector ¹	7.0	2.2	4.4	8.3
Value of large exposures ⁵ to capital	253.1	284.0	308.1	278.5
Customer deposits to total (non-interbank) loans	219.2	234.3	228.1	226.3
Residential real estate loans to total loans ²	11.3	11.6	12.5	11.9
Commercial real estate loans to total loans ²	5.5	5.4	4.9	4.3
Trading income to total income ⁴	7.6	12.4	10.0	10.7
Personnel expenses to non-interest expenses ⁴	47.6	47.6	49.1	50.1

Per cent

^a FSIs prior to December 2021 were calculated on a domestic consolidation basis using the Financial Soundness Indicators Compilation Guide (2006) of the IMF.

^b Other Depository Corporations refer to banks and NBDTIs that are all licensed by the Bank.

^c Effective December 2021, FSIs are computed based on the Financial Soundness Indicators Compilation Guide (2019) of the IMF. Some FSIs may, therefore, not be strictly comparable with those prior to December 2021

¹New indicators introduced following the adoption of the Financial Soundness Indicators Compilation Guide (2019) of the IMF as from December 2021.

²Total loans include commercial loans, instalment loans, hire-purchase credit, loans to finance trade credit and advances, finance leases, repurchase agreements not classified as a deposit, and overdrafts.

³Indicators discontinued following adoption of the new Financial Soundness Indicators Compilation Guide (2019) of the IMF as from December 2021.

⁴Indicators amended following adoption of the new Financial Soundness Indicators Compilation Guide (2019) of the IMF as from December 2021. Hence, data may not be strictly comparable to quarters prior to December 2021.

⁵As from December 2017, the measurement of credit concentration ratio has been revised to aggregate large credit exposure (above 10 per cent of Tier 1 capital) as a percentage of aggregate Tier 1 capital. Hence, data are not strictly comparable with those prior to December 2017.

... not available. Also, refer to footnote 5.

List of charts

Macrofinancial environment

Chart 1.1	MSCI indices
Chart 1.2	Selected government bond yields
Chart 1.3	US dollar index
Chart 1.4	Tourist arrivals and tourism earnings
Chart 1.5	Domestic stock market performance
Chart 1.6	Investment by non-residents on the SEM and DEM
Chart 1.7	FX turnover:
	a. Aggregate
	b. Sector-wise
Chart 1.8	Evolution of Rs/US\$ selling dealt rate and EUR/US\$
Chart 1.9	Evolution of market interest rates
Chart 1.10	Reserves adequacy metrics
Chart 1.11	Systemic Risk Indicator
Financial soundnes	s of households and corporates
Chart 2.1	Annual growth of private sector credit
Chart 2.2	Annual growth of credit to households
Chart 2.3	Share of housing loans in total bank credit to private sector
Chart 2.4	Housing loan growth
Chart 2.5	NPL ratio for households
Chart 2.6	Indicators of household indebtedness:
	a. Household indebtedness to income and GDP
	b. Share of household credit- Rs and FX
Chart 2.7	Household credit-to-GDP gap
Chart 2.8	Debt servicing cost to income
Chart 2.9	Household debt servicing cost and interest rates
Chart 2.10	Quarterly change in total household bank deposits and borrowings
Chart 2.11	Sectoral disbursement by the MIC as at end-December 2022
Chart 2.12	Growth of credit to the corporate sector
Chart 2.13	Sector-wise NPL ratio for selected key sectors
Chart 2.14	Share of claims secured by commercial real estate to total bank credit to the
	corporate sector
Chart 2.15	Corporate credit-to-GDP gap
Chart 2.16	Share of corporate credit to operating surplus
Chart 2.17	Household deposits
	a. Share of household deposits in Rs and FX
	b. Annual growth of household deposits
Chart 2.17	Purchases of FX by households

Chart 2.19 Corporate sector deposits

- a. Share of domestic corporate deposits in Rs and FX
- b. Annual growth of domestic corporate deposits

Financial soundness of deposit-taking institutions

Chart 3.1 Banking sector assets Chart 3.2 Distribution of banking sector assets and liabilities Chart 3.3 Interest rate gap per bucket Chart 3.4 Capital adequacy ratio of the banking sector Chart 3.5 Non-performing loans and specific provisions Chart 3.6 Profitability ratios of the banking sector Chart 3.7 Loan to deposit ratio Chart 3.8 LTD in Rs and FX Chart 3.9 Domestic banking systems' funding gap Chart 3.10 FX exposure to Tier 1 capital Chart 3.11 Cross-border funding a. Sources b. Uses Chart 3.12 Cross-border funding exposure a. Regional grouping b. Top 3 countries c. Main sources of fund- continent-wise Chart 3.13 Cross-border uses of fund exposure a. Regional grouping b. Top 3 countries c. Main sources of fund- continent-wise Chart 3.14 **Banking Stability Indicator** a. Banking Stability Map b. Banking Stability Index Chart 3.15 Annual growth of total assets and deposits of NBDTIs Chart 3.16 Profitability ratios of NBDTIs Chart 3.17 Financial soundness indicators: a. Solvency b. Asset quality c. Profitability d. Liquidity e. Sensitivity to market risk f. Encouraged FSIs





Non-bank financial services sector

- Chart 4.1 Long term insurance assets
- Chart 4.2 Assets distribution
- Chart 4.3 Financial asset by industry as at end-December 2022
- Chart 4.4 a. Gross premiums
 - b. Gross premiums for 2022 by policy class
 - c. Number of policies in force
- Chart 4.5 General insurance value of assets
- Chart 4.6 Number of general insurance policies
 - a. Motor segment
 - b. Non-motor segment
- Chart 4.7 Total gross premium
- Chart 4.8 Value of assets
- Chart 4.9 Financial assets by industry as at end 2022
- Chart 4.10 Distribution of assets by class

Global business sector

Chart 5.1 Total assets of GBC as at end-December Chart 5.2 Evolution of live GBCs Chart 5.3 Evolution of newly licensed and non-live GBCs Chart 5.4 Live GBCs targeting India vs Africa Chart 5.5 Newly licensed GBCs targeting India vs Africa Chart 5.6 Gross flows of portfolio investment Chart 5.7 Gross flows of foreign direct investment Chart 5.8 Exposure of GBCs by institutional sectors as at end-December 2022 Chart 5.9 Evolution of GBC deposits a. Rs equivalent GBC deposits b. US\$ equivalent GBC deposits Chart 5.10 Deployment of GBC deposits Chart 5.11 **Evolution of GBC loans** a. Rs equivalent GBC loans b. US\$ equivalent GBC loans Chart 5.12 **Evolution of GBC NPLs** a. Asset quality of GBC loans b. NPL GBC, banking sector and outside Mauritius

Stress testing the Mauritian banking sector

Chart 6.1	Macroeconomic shock result - sector level results
	Macroeconomic interest rate and exchange rate shocks results - sector level
Chart 6.2	results
Chart 6.3	Sectoral credit sensitivity analysis
	a. Sector level results



b. Sector-wise NPL ratio sensitivity analysis

- Chart 6.4 Credit concentration risk sector level results
- Chart 6.5 Liquidity risk adjusted FX HQLA

Chart 6.6 Implied percentage of performing loans to be classified as non-performing



List of tables and boxes

Tables

Non-bank financial services sector

Table 4.1	Solvency status of	of Long-Term Insurers
		• - · ·

Table 4.2Solvency status of General Insurers

Global business sector

Table 5.1Risk map – per cent of total GBC dep	osits
---	-------

Stress testing the Mauritian banking sector

Table 6.1	Bank-wise distribution of post-shock CAR
Table 6.2	Interest rate and exchange rate scenarios
Table 6.3	Credit sensitivity risk- Bank-wise distribution of post-shock CAR
Table 6.4	Liquidity risk – FX deposit withdrawals by GBCs

Boxes

Macrofinancial environment

Box 1 A New Systemic Risk Indicator

Financial soundness of households and corporates

- Box 2 Micro-level assessment of the household sector
- Box 3 The Mauritius Investment Corporation Ltd and financial stability

List of acronyms

	acronyms
ARA	Assessing Reserve Adequacy
Bank	Bank of Mauritius
CAR	Capital Adequacy Ratio
CET1	Common Equity Tier 1
D-SIBs	Domestic Systemically Important Banks
DSTI	Debt-service-to-income
EU	European Union
FATF	Financial Action Task Force
FCY	Foreign Currency
FDI	Foreign Direct Investment
FMI	Financial Market Infrastructure
FPI	Foreign Portfolio Investment
FSC	Financial Services Commission
FSIs	Financial Soundness Indicators
FX	Foreign Exchange
GB	Global Business
GBCs	Global business corporations
GDP	Gross Domestic Product
GOIR	Gross Official International Reserves
HHI	Herfindahl-Hirschman Index
HQLA	High-Quality Liquid Assets
IMF	International Monetary Fund
JCC	Joint coordination Committee
KRR	
LCR	Key Repo Rate
LTD	Liquidity Coverage Ratio
MCs	Loan-to-deposit
MIC	Management companies Mauritius Investment Corporation Limited
MIFC	Mauritius International Financial Centre
MPC	
MPC	Monetary Policy Committee Macroprudential Indicators
MSCI	•
	Morgan Stanley Capital International
NBDTIS	Non-Bank Deposit-Taking institutions
NPLs	Non-performing Loan(s)
ROA	Return on Assets
ROE	Return on Equity
Rs	Mauritian Rupee
RWAs	Risk Weighted Assets
SMEs	Small and Medium Enterprises
SPEs	Special Purpose Entities
SRI	Systemic Risk Indicator
STC	State Trading Corporation
UK	United Kingdom
US	United States
US\$	US dollar
WEO	World Economic Outlook





Glossary

Annual change or growth compares the value of a variable at one period in time with the same period of the previous year.

Credit to private sector has been aligned with the IMF FSI Compilation Guide (2019). Credit comprises loans and debt securities issued by private nonfinancial corporations and private sector encompasses private non-financial corporation, households and non-profit institutions serving households.

Credit extended to households for other purposes include purchase of other consumer durable goods, purchase of land, purchase of motor vehicles, education purposes, medical purposes, investment purposes, and other unspecified purposes.

Credit-to-GDP gap is the percentage deviation between the credit-to-GDP ratio and an estimate of its trend. The trend in the credit-to-GDP ratio is estimated by using the HP filter.

Corporate sector comprises only Other Nonfinancial Corporations in Mauritius.

Household indebtedness considers a broader measure that adds up household credit from banks, NBDTIs, insurance and leasing companies.

Non-performing loans ratio is measured by the share of non-performing loans to gross loans.

Percentage point is the arithmetic difference of two percentages.

Return on Assets is the annualised pre-tax return on assets and is measured by the ratio of pretax profit to average assets.

Return on Equity is the annualised pre-tax return on equity and is measured by the ratio of pretax profit to average equity.

SEMDEX is an index of prices of all listed shares on the Stock Exchange of Mauritius wherein each stock is weighted according to its share in the total market capitalisation.

Tier 1 capital is a term used to qualify eligible capital of a bank and is constituted of the components having the highest loss absorbing capacity.

