



# FINANCIAL STABILITY REPORT

OCTOBER | 2024



FINANCIAL STABILITY COUNCIL



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**OCTOBER 2024**  
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## ABBREVIATIONS

|         |   |
|---------|---|
| AI      | Artificial Intelligence                                 |
| AML     | Anti-Money Laundering                                   |
| ATM     | Automated Teller Machine                                |
| BBI     | Botswana Bond Index                                     |
| BISS    | Botswana Interbank Settlement System                    |
| BSEL    | Botswana Stock Exchange Limited                         |
| BWP     | Botswana Pula   |
| CAR     | Capital Adequacy Ratio                                  |
| CDD     | Customer Due Diligence                                  |
| CFT     | Combating the Financing of Terrorism                    |
| CIU     | Collective Investment Units                             |
| CorpI   | Corporate Bond Index                                    |
| CPF     | Counter Proliferation Financing                         |
| CRE     | Commercial Real Estate                                  |
| DCI     | Domestic Company Index                                  |
| DCTRI   | Domestic Company Total Return Index                     |
| DISB    | Deposit Insurance Scheme Botswana                       |
| D-SIBs  | Domestic Systemically Important Banks                   |
| D-SIFIs | Domestic Systemically Important Financial Institutions  |
| D-SIIs  | Domestic Systemically Important Insurers                |
| DSTI    | Debt-Service-to-Income                                  |
| DTI     | Debt-to-Income  |
| ECB     | European Central Bank                                   |
| EFTs    | Electronic Funds Transfers                              |
| EPS     | Electronic Payment Service                              |
| ESAAMLG | Eastern and Southern Africa Anti-Money Laundering Group |
| EU      | European Union  |
| FATF    | Financial Action Task Force                             |
| FCI     | Foreign Company Index                                   |
| FIA     | Financial Intelligence Agency                           |
| Fintech | Financial Technology                                    |
| FIMs    | Financial Market Infrastructures                        |
| FSAP    | Financial Sector Assessment Programme                   |
| FSB     | Financial Stability Board                               |
| FSC     | Financial Stability Council                             |
| FSDS    | Financial Sector Development Strategy                   |
| FSR     | Financial Stability Report                              |
| FSSA    | Financial System Stability Assessment                   |
| FX      | Foreign Exchange  |
| G20     | Group of 20   |
| GDP     | Gross Domestic Product                                  |
| GFSR    | Global Financial Stability Report                       |
| GovI    | Government Bond Index                                   |
| HIS     | Household Indebtedness Survey                           |
| IADI    | International Association of Deposit Insurers           |
| IMF     | International Monetary Fund                             |
| LTV     | Loan-to-Value   |
| MMFs    | Money Market Funds                                      |
| MoF     | Ministry of Finance                                     |

|        |  |
|--------|--|
| MPC    | Monetary Policy Committee                            |
| MPR    | Monetary Policy Report                               |
| MoPR   | Monetary Policy Rate                                 |
| NBFIs  | Non-Bank Financial Institutions                      |
| NBFIRA | Non-Bank Financial Institutions Regulatory Authority |
| NFCs   | Non-Financial Corporates                             |
| NIIP   | Net International Investment Position                |
| NMMFs  | Non-Money Market Funds                               |
| NPLs   | Non-Performing Loans                                 |
| OFCs   | Other Financial Corporations                         |
| QMTS   | Quarterly Multi-Topic Survey                         |
| RHS    | Right Hand Side                                      |
| RMCI   | Real Monetary Conditions Index                       |
| SADC   | Southern African Development Community               |
| SDR    | Special Drawing Rights                               |
| STR    | Suspicious Transactions Report                       |
| SSA    | Sub-Saharan Africa                                   |
| UNODC  | United Nations Office on Drugs and Crime             |
| USA    | United States of America                             |
| USD    | United States Dollar                                 |
| VASPs  | Virtual Assets Service Providers                     |
| ZAR    | South African Rand                                   |



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# ACKNOWLEDGEMENT

The October 2024 issue of the Financial Stability Report (FSR) was prepared by the Bank of Botswana (the Bank) in collaboration with the Ministry of Finance (MoF), the Non-Bank Financial Institutions Regulatory Authority (NBFIRA), the Financial Intelligence Agency (FIA), the Deposit Insurance Scheme of Botswana (DISB) and the Botswana Stock Exchange Limited (BSEL). The Report was approved for publication by the Financial Stability Council (FSC/Council), a statutory body established by the Bank of Botswana (Amendment) Act, 2022. The Council consists of five members, being the Governor of the Bank of Botswana (Chairperson); Permanent Secretary of the Ministry of Finance; Chief Executive Officer, NBFIRA; Director General, FIA; and Director, DISB; while the Chief Executive Officer, BSEL is an observer member, thus a non-voting member.



## **PREFACE**

### **Purpose of the Report**

The Financial Stability Report (FSR) provides an assessment of the vulnerabilities that could elevate risks to the stability and resilience of the Botswana financial system by the Financial Stability Council (FSC/Council). The Report provides analytical and performance updates for the financial sector and its impact on economic activity and welfare; encourages public discourse and engagement on financial stability issues; and helps provide information that major participants in the Botswana financial industry and elsewhere may use as input into their own financial risk assessment processes. The FSR is published twice a year (that is May and October) following discussion and approval at the FSC meetings.

### **Macroprudential Policy Framework**

The primary objective of the macroprudential policy framework is to limit systemic risk and its transmission to the broader economy. This is predicated on the observation, and understanding, that the financial system is interconnected and vulnerable to contagion risk, with the result that crises emanating from the financial sector can spill-over rapidly to the real economy. At the same time, sectoral or broader economic weaknesses could adversely affect the financial system and trigger instability or cause a systemic financial crisis. In turn, this can cause widespread disruption to the provision of financial services, with serious negative consequences for macroeconomic stability and the real economy.

In order to limit systemic and spill-over or contagion risks, financial sector regulators pursue a variety of key intermediate objectives, among others: minimising and mitigating excessive credit growth and leverage; mitigating and preventing significant maturity mismatches and market illiquidity; controlling structural vulnerabilities in the financial system that arise through interlinkages; limiting direct and indirect exposure concentrations from domestic systemically important financial institutions (D-SIFIs); reducing the systemic impact of misaligned incentives with a view to reducing moral hazard; monitoring systemic risks from activities outside the banking system and implementing appropriate policy responses to contain such risks; and strengthening the resilience of the financial system and related infrastructure to mitigate aggregate shocks.

Given the structure of the Botswana economy, the macroprudential policy framework views the external sector vulnerabilities of the domestic economy through trade shocks and capital outflows, as having the greatest potential for elevated financial stability risks. There are also potential risks to the stability of the domestic financial system emanating from economic and trade disruptions induced by geopolitical tensions and economic fragmentation; continued exposure to cyber threats due to increasing usage of technology, as well as climate-related financial risks. The FSR provides an analysis of these vulnerabilities where they persist - their interaction, as well as the potential impact and response to spill overs from regional and global financial stability developments and trends. Financial soundness and macroeconomic indicators are used to assess risks to and within the financial system. Relevant and appropriate policy instruments and tools are available for use as intervention measures during periods of financial instability. The instruments and policy tools would be adjusted accordingly and timeously to mitigate the envisaged threats. Macroprudential interventions in this regard would be communicated through circulars issued, periodically, by the FSC.

### **Decision-making process**

The FSC of Botswana, a multi-agency body, was established to, among others, collaborate and share information on policy and other related issues on strengthening the financial system and making it more robust, in order to mitigate financial stability risks, and take prompt action in response to a perceived build-up of systemic risks; ensure a coordinated response to financial stability issues that may require cross-agency collaboration; request information from any financial institution, exchange information on financial stability issues, and communicate systemic risk warnings.

The FSC is a statutory body as per Section 20 (54B) of the Bank of Botswana (Amendment) Act, 2022. It is responsible for (a) preserving the stability of the financial system; (b) ensuring cooperation between its members with respect to the assessment of the build-up of economic and financial sector systemic risks in Botswana; (c) developing coordinated policy responses to risks including crisis management; and (d) making recommendations, issuing warnings or opinions addressed to regulatory bodies regarding financial institutions.

The FSC is chaired by the Governor, and the Bank acts as the secretariat. The work of the FSC used to be governed by a memorandum of understanding signed in February 2019 and has since been subsumed into the FSC Charter.

### **Announcement of macroprudential policy decisions**

Proceedings of the FSC are communicated through a Press Release, shortly after a Council meeting, to inform the public of the discussions and conclusions regarding the stability of the domestic financial system. The Press Release further highlights the key risks in the financial system and recommendations to address such vulnerabilities. Policy decisions are communicated through a circular to all affected financial institutions. The circular provides a brief description that links the identified risk with the intermediate objective and explains the way measures taken are expected to mitigate the risk.



## 1. EXECUTIVE SUMMARY

- 1.1 **The October 2024 International Monetary Fund (IMF) Global Financial Stability Report (GFSR) indicates that near-term financial stability risks are contained.** Furthermore, since the pandemic, the global financial system has withstood several shocks such as geopolitical wars and tensions, economic fragmentation and high inflation. However, developing countries continue to face challenges from high sovereign debt, exacerbated by weaker fiscal and external buffers. Moreover, accommodative financial conditions, if not managed effectively, could lead to a further buildup of vulnerabilities. This risk is heightened by buoyant asset markets, sudden market volatility, high leverage in the non-bank financial intermediaries and the persistent fragilities of the corporate and commercial real estate sectors.
- 1.2 **The domestic financial system continues to be resilient to a wide range of shocks,** including vulnerabilities emanating from credit, market, liquidity and funding positions of the commercial banks. The latest stress tests for banks show that banks are solvent, liquid and profitable. Capital markets are also buoyant, with noticeable growth in domestic market capitalisation, while financial market infrastructures remain stable and robust.
- 1.3 **The macroeconomic environment is challenging and could pose a threat to financial stability if the fiscal position deteriorates significantly.** The domestic economy is currently characterised by deteriorating fiscal and external positions and decline in foreign exchange reserves that could undermine the exchange rate framework and financial stability at large. Considering the significant role of the public sector on business and financial performance, the macroeconomic position could have adverse consequences for sectoral stability if unabated.
- 1.4 **Domestic credit expansion continues to be positive and supportive of economic growth.** Commercial bank credit grew at a slower pace of 4.8 percent in August 2024 compared to 5.5 percent in the corresponding period of 2023, largely attributable to lower utilisation of overdraft and revolving credit facilities by businesses. As such, credit growth was sustained by household borrowing, which continued to dominate commercial banks' loan book at 64.4 percent of the total. The credit-to-GDP gap was negative in the second quarter of 2024, indicating limited risks of economic overheating emanating from credit trends and developments.
- 1.5 **Average daily market liquidity in the banking system fell in the second half of 2024** due to persistent foreign exchange outflows and a slower pace of government spending. Nevertheless, banks continued to maintain a healthy liquidity position (with average liquidity ratio of 26.1 percent in August 2024) and remained unconstrained in supporting the economy.
- 1.6 **Strong macro-financial linkages pose a risk of contagion.** Notwithstanding the domestic financial system's resilience and stability, strong and concentrated sectoral linkages present a channel for cascading negative effects. However, strong regulatory and supervisory measures, along with sustained profitability and solvency in the financial sector, continue to mitigate the risk of contagion across the financial system.
- 1.7 **Overall, vulnerabilities have increased in the financial system due to rising sovereign/fiscal risks.** Subdued demand for diamonds and resultant decrease in export earnings pose a risk for the domestic financial system as declining government revenues narrow the fiscal space and amplify external vulnerabilities through declining foreign exchange reserves. The market stress observed in the mining sector has heightened vulnerability, especially for government and financial institutions in the mining value chain.

## 2. GLOBAL FINANCIAL STABILITY

*Accommodative financial conditions could facilitate further buildup of vulnerabilities*

- 2.1 The October 2024 GFSR observes that since the April 2024 GFSR, global economic activity has moderated and inflation has continued to slow, which has resulted in easing of monetary policy and accommodative financial conditions. Concomitantly, emerging markets remained resilient, and asset price volatility has stayed relatively low, hence near-term stability risks are adjudged to be low and contained. However, the GFSR warns of prevailing loose financial conditions as fertile ground for financial instability as they may perpetuate and accentuate existing vulnerabilities such as high asset valuations, and the rising and persistent high private and government debt. The ongoing economic uncertainty emanating from geopolitical tensions, economic fragmentation and policy uncertainty are likely to amplify these risks.

*Optimistic investor sentiment is driving up asset valuations*

- 2.2 Global financial markets have benefited from accommodative financial conditions, as a result, asset valuations in equity and corporate markets are rising and may be overvalued. The GFSR identifies the optimistic investor sentiment as the driving force behind high asset valuations, which defies the current slowdown in growth in firms' earnings and the observed property market downturn in some segments of the corporate and commercial real estate. The GFSR's assessment supports observations from Bloomberg and Refinitiv's observations, which also consider asset valuations to be lofty. Bloomberg<sup>1</sup> indicates that major stock indices<sup>2</sup> in the US and Europe have reached record highs, fuelled by robust growth in the technology sector. Similarly, Refinitiv<sup>3</sup> notes that major Asian indices are also experiencing positive trends, driven by the burgeoning consumer market and technological advancements. These strong valuations are a key driver of the current accommodative financial conditions, facilitating easier access to capital and fostering investment.

*Economic growth prospects are steady*

- 2.3 The October 2024 World Economic Outlook projects global growth to remain steady at a moderate 3.2 percent in both 2024 and 2025. While this suggests some macroeconomic stability, it reflects a weaker performance compared to pre-pandemic trends. Advanced economies show a mixed picture, with the US exceeding expectations while Europe faces downgrades. Emerging markets are also experiencing varied growth, with Asia leading other regions, fuelled by strong demand for technology products, while other regions grapple with challenges related to conflicts, the impact of climate change, and disruptions in commodity supply.

- 2.4 Although global inflation is moderating, concerns linger about financial stability. High debt levels, potential asset bubbles, and geopolitical risks could amplify shocks and derail the fragile recovery. Policymakers face the challenge of balancing support for growth with managing inflation and safeguarding financial systems. The need for structural reforms, fiscal sustainability, and international cooperation is underscored to navigate these complexities and ensure a more robust and inclusive global economy.

*Growing private credit is a concern*

- 2.5 The IMF notes that private credit has grown beyond lending to mid-sized corporate borrowers, intensifying competition with banks in the syndicated loan markets. There is concern that high interest rates in the private credit space could increasingly test borrowers' capacity and given its infancy stage, the market remains untested and may not withstand severe downturns despite the many new features designed to mitigate credit risks in this segment. The IMF reports that there are signs that the private credit industry's rapid growth, competition from banks on large deals, and pressure to deploy capital may lead to a deterioration of underwriting standards, thus adding risks to asset quality.

1 See: <https://www.bloomberg.com/markets/stocks>

2 S&P 500 and Nasdaq

2 See: <https://www.refinitiv.com/>

#### *Emerging risks due to artificial intelligence*

2.6 The October 2024 GFSR further identifies several potential risks associated with increased artificial intelligence (AI) adoption in financial markets. One significant concern is the potential for AI to amplify market volatility, particularly during times of stress. The report notes that AI-driven algorithmic trading strategies could exacerbate market instability due to their programming to de-risk or shut down during periods of high volatility, potentially leading to a sudden evaporation of liquidity.

2.7 Another area of concern is the opacity and complexity of AI models, which could undermine supervisory efforts, particularly in the less regulated non-bank financial sector. Operational risks could also arise from the increasing reliance on a few key third-party AI service providers, where failure or disruption of supplier services could significantly disrupt the financial system. Overall, AI brings opportunities to optimise markets and generate efficiencies but could also undermine market integrity and erode trust where the applications are used to manipulate financial markets. Bearing these risks in mind, the IMF underscores the need for a re-evaluation and modification of existing volatility response mechanisms for AI-driven trading. More broadly, a coordinated approach to regulating and supervising third-party AI service providers is necessary to manage operational risks along with strengthening oversight of the non-bank sector (Box 3 summarises developments around digitalisation and AI).

#### *Improved banking sector profitability*

2.8 Banks in several key regions, particularly in the Eurozone, reported robust profits in 2024, bolstering their resilience against potential shocks and contributing to overall financial stability. The ECB's Financial Stability Review of May 2024 attributes profitability in these markets to increased interest income and lower loan loss provisions. The EU's long-term financial stability is further strengthened by the ensuing deleveraging by households, businesses and governments, which reduced debt burdens and improved the resilience of the non-financial sector in 2024.

Nonetheless, specific and isolated cases of debt service burden could reverse financial stability progress in these markets.

#### *Asset price corrections looming on the back of excessive market optimism*

2.9 Financial markets in advanced economies appear to be “pricing for perfection”, with asset prices reflecting overly optimistic expectations about future economic growth and corporate earnings. This exuberance, as the ECB report cautions, could lead to sharp market corrections, and resultant instability, if those expectations were to be derailed by lingering global uncertainties and risks.

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### 3. REGIONAL FINANCIAL STABILITY

#### *Global economic headwinds threaten SSA growth*

- 3.1 The global economic slowdown, exacerbated by ongoing geopolitical conflicts, economic fragmentation and elevated uncertainty regarding trade policies, pose significant threats to economic growth for sub-Saharan African (SSA) countries, amplifying financial system vulnerabilities. Most Southern African Development Community (SADC) countries are heavily reliant on export of primary commodities for revenue, and therefore, face reduced demand that could undermine fiscal performance and consolidation efforts. This could undermine respective external balances, leading to currency depreciations, high import costs and inflationary pressures. The October 2024 GFSR emphasised these risks, highlighting the potential for fiscal imbalances and increased debt burden for the SSA region and frontier economies. The IMF recommends communication with creditors, multilateral cooperation, and support from the international community in order to mitigate sovereign debt risks.

#### *Tightening regional financial conditions*

- 3.2 High interest rates in major economies and potential capital outflows could pose challenges for highly indebted SADC countries or those heavily reliant on external financing. According to the IMF, positive expectations for lower inflation and interest rates are not reflected in emerging and developing economies, including the SADC region, due to weaker economic fundamentals and capital flight as investors turn to safer global assets such as United States of America (USA) treasury bills and bonds.

#### *SSA vulnerable to climate-related risks*

- 3.3 The region remains vulnerable to physical and transition climate related risks, such as uncertain and severe weather patterns and gradual divestment from carbon intensive assets. Physical risks could amplify financial losses for banks and insurance companies while

transition risks would generally depend on the pace of decarbonisation and need to balance green outcomes with economic disruptions associated with abrupt policy adjustments.

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## 4. DOMESTIC FINANCIAL STABILITY

*The domestic financial system continues to be resilient*

- 4.1 Overall, the domestic financial system remains resilient and effective in providing financial services to the economy, anchored on strong capital and liquidity buffers, as well as enabling policy frameworks and robust regulatory environment.

*Moderate vulnerabilities in the financial system*

- 4.2 Overall vulnerabilities in the domestic financial system are assessed to be moderate (Heatmap, Figure 1). Given subdued economic activity, domestically and globally, the financial system faces elevated vulnerabilities from the real sector and the non-bank financial institutions (NBFIs) while banks remain largely solvent, and credit risks contained. However, concentration of funding in the banking sector is still a concern and there is need for banks to continue diversifying their funding sources to alleviate inherent liquidity and funding risks. The funding concentration is largely due to NBFIs deposits, and this translates into NBFIs contagion risk. Meanwhile, as evident in the heatmap, risks from households are low despite prevailing challenges stemming from the deteriorating fiscal position.

*Commercial banks exposed to NBFIs*

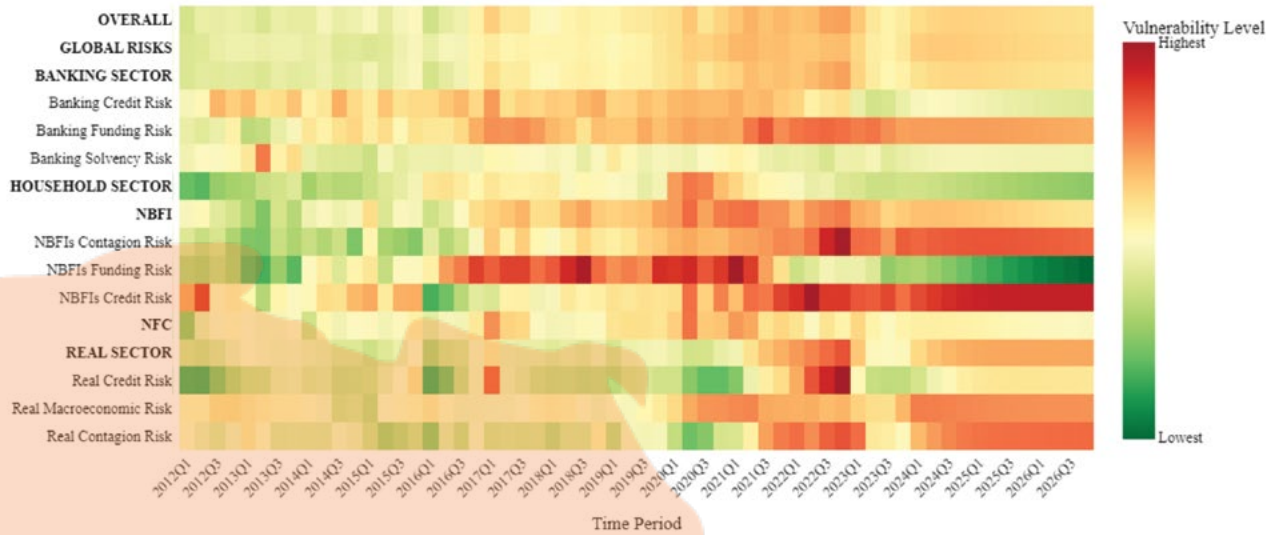
- 4.3 Consistent with the growing non-mining sector economic activity, there is increasing vulnerabilities for the non-financial corporates relating to credit risk and leverage as they borrow more to finance their operations and business expansion. These vulnerabilities are forecast to persist into the medium term and manifest in elevated credit and contagion risks associated with the increasing exposure of commercial banks to the NBFIs, as the major sources of funding, as well as the notable increase in borrowing by NBFIs from banks, which is above historical levels.
- 4.4 These interactions have potential to cascade stress from one sector to the other. Although the latest financial statements from the dominant NBFIs show that they are highly profitable and solvent, with limited credit risks, it is

important to mitigate risks arising from the interconnectedness between NBFIs and the rest of domestic financial system. This can be achieved by strengthening regulatory oversight and aligning NBFIs governance and operational standards with those for banks, improving transparency through enhanced reporting requirements, and setting exposure limits to reduce excessive lending between banks and NBFIs. Regular stress testing, developing resolution frameworks for failing NBFIs, and promoting diversification of funding sources can also help minimise systemic risks. Additionally, encouraging robust risk management practices and addressing specific risk transmission channels can further reduce the potential for contagion and enhance overall financial stability.

- 4.5 In summary, the heatmap shows that there are structural vulnerabilities relating to the increase in the indebtedness of NBFIs to the banking sector; interconnectedness of NBFIs and the domestic financial system, especially commercial banks; the deteriorating macroeconomic environment; real sector interconnectedness and funding concentration in the banking sector. These vulnerabilities are mitigated by effective regulatory frameworks and deployment of financial stability surveillance, oversight monitoring and response tools.



**Figure 1: Botswana Financial System Heatmap**



*Climate-related risks may remain a threat to financial stability*

4.6 Other risks to domestic financial stability include climate-related risks. Persistent droughts and a rise in global temperatures threaten food security and have the potential to indirectly affect domestic financial stability. Dry and erratic weather conditions have the potential to drive food prices up, reduce household income and, in some cases, result in defaults on loans. The 2024 Budget Speech indicates that the agriculture and tourism sectors are the most vulnerable to climate change. As a result, the budget allocated P1.37 billion to fund climate mitigation activities, while legislative review and integration of climate change requirements into public finance management strategies are ongoing.

*Unlicensed entities dominate in illegal deposit taking*

4.7 The Financial Intelligence Agency (FIA) continued to receive suspicious transactions reports (STR) during the April to September 2024 period. The banking sector filed 94.5 percent of the STRs. During the same period, around 60 percent of the STR were related to illegal deposit taking, whereby funds were solicited from the public for purported “investments” by unlicensed entities. Collectively, the STRs on illegal deposit taking amounted to P25.8 million, whereas STR related to large cash transactions amounted P40 million. FIA, working with law enforcement

agencies and the courts continue to enforce the laws, resolve these cases and strive to avert loss of funds by members of the public. During the April to September 2024 period, the Agency attended to 42 requests for financial information from investigatory authorities for input into financial investigations for money laundering and associated predicate crimes which included possession of illicit substances and corruption and economic crimes.

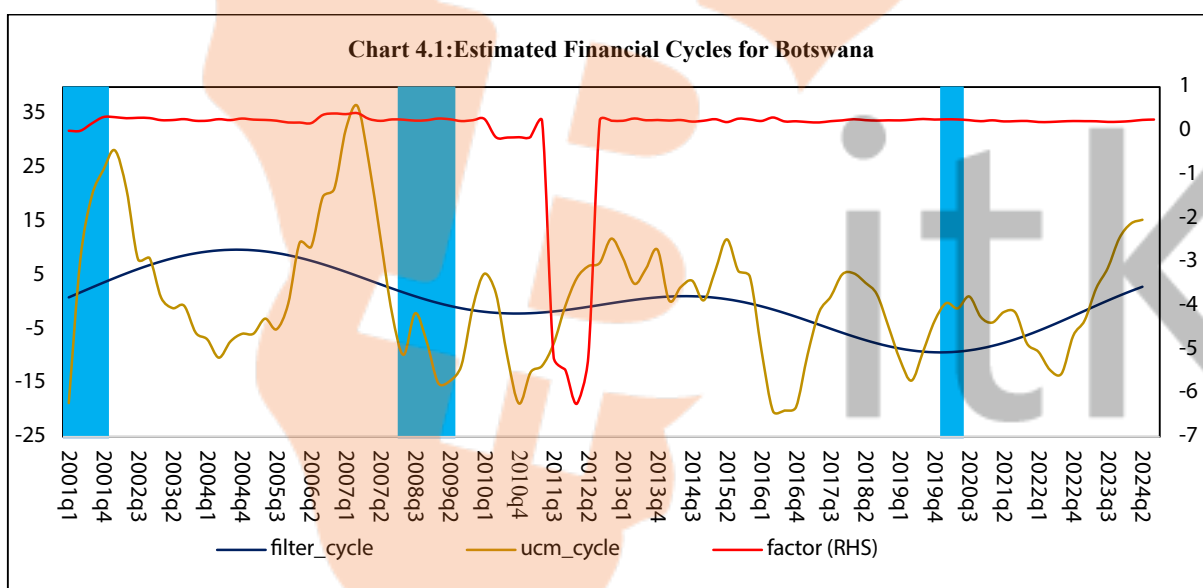
4.8 The domestic virtual assets market is still developing and relatively unsophisticated, thereby posing limited risks to financial stability. Cyber risks arising from financial technology (Fintech) are also considered minimal but may rise as technological innovations continue to penetrate the Botswana market. Notably, cyber risks remain among the top five national security risks that could emanate from the financial sector in Botswana (Box 1). For this reason, the development and adoption of appropriate laws, regulations, frameworks, and surveillance tools is crucial to the early detection and prevention of such threats. Accordingly, the Cybercrime and Computer Related Crimes Act of 2018 and institution based counter-cybercrime measures aim to curtail vulnerabilities in the technology landscape in support of financial stability. Relatedly, a National Fintech Working Group was launched on 30 January 2024, to provide strategic direction on Fintech matters. The working group was specifically established

to develop an inclusive National Fintech Strategy and a Fintech Analytical Assessment Framework that facilitate development of the financial services sector consistent with national priorities on payment systems. The group comprises key national stakeholders including the Bank of Botswana, government, regulatory authorities, financial services infrastructure providers and relevant stakeholders.

*The domestic financial cycle is showing an upward trajectory*

4.9 Several tools have been developed as part of ongoing efforts to identify, measure and mitigate risks to financial stability. Among others, determination of the financial cycle<sup>4</sup> was made to enhance financial stability oversight by studying the cyclical patterns of financial and macroeconomic variables to provide insights on the risk-taking behaviour of economic agents at various phases of the financial cycle. The latest financial cycle indicators show an upward trajectory, indicating positive sentiments about risk and

pricing in the domestic financial markets (Chart 4.1). This implies that financial conditions are supportive of more lending and investment to drive economic activity. Inherently, positive sentiment about the performance of the financial system is accompanied by lax lending standards and higher risk taking, which if left unchecked can sow seeds of financial distress. In the broader context of pursuing economic transformation, the optimism in the financial markets supports growing economic activity and this is particularly important in the current economic environment where growth in non-mining activity is required to compensate for the poor performance of the mining sector. However, vulnerabilities continue to be monitored.



4 The Botswana financial cycle is estimated based on research work done by the Research and Financial Stability Department of the Bank of Botswana. See Setshegetso, L.N. and Mado, M. (2023) Approximating Botswana's Financial Cycle: Expanding the Macroprudential Toolkit. South African Journal of Economics, 1 – 16. Available at <https://doi.org/10.1111/saje.12359>.

## Box 1: Top Five National Security Risks Emanating from the Financial Sector

### Introduction

The financial sector plays a crucial role in economic development and the welfare of citizens by allocating funds for viable investments and providing payment services. However, the liberalisation of financial markets and greater connectivity between global financial markets, have increased financial system risks and crisis, and enabled the proliferation of criminal activities. Moreover, rapid technological advancement has facilitated adoption of borderless technology-based platforms in the financial system. These developments, could, if progressive and significant become an increasing concern to the health of the financial sector and the general economy. The aim of this article is to present the top five national security risks that could emanate from the financial sector in Botswana and their mitigations measures.

| RISK  | MITIGATION MEASURES  |
|---|--|
| <p><b>Money Laundering and Terrorism Financing:</b> Evolution of digital platforms and digital payment instruments that promote anonymity of transactions present an opportunity for money laundering in the financial sector. With the complexity of recent financial technology developments, illicit funds can be transmitted globally with relatively low detection risks, particularly through intricate financial investment vehicles and other cyber-enabled crimes.</p> <p>According to the 2023 national risk assessment for money laundering and terrorist financing, the national vulnerability and threat to money laundering were rated medium and medium-high, respectively. This presents a likelihood for the country to be used as conduit to move funds or be used to raise funds for terrorism activities. Therefore, money laundering remains a national security risk.</p> | <ul style="list-style-type: none"> <li>• Ensuring that VASPs, such as cryptocurrency exchanges comply with Anti-Money Laundering/Counter Financing of Terrorism and Counter Proliferation Financing (AML/CFT/CPF) regulations is crucial to prevent the misuse of virtual assets for terrorist financing activities. This can be achieved through enhanced offsite monitoring and frequent engagements with the virtual assets sector (meetings/inspections).</li> <li>• Market surveillance and collaboration with other law enforcement agencies/authorities to detect illegal operators.</li> <li>• Strong AML/CFT/CPF legislation and supervisory capabilities.</li> <li>• Virtual Assets Act, 2022</li> </ul> |
| <p><b>Cybercrime and Financial Fraud:</b> Cybercrime covers a wide range of criminal activities that are carried out using digital devices and/or networks. These crimes involve the use of technology to commit financial fraud, identity theft, data breaches, computer viruses and financial scams. With the increasing digitisation of financial services, including online banking, mobile payments and digital currencies, cybercrimes pose a significant threat to the financial sector and the economy.</p> <p>Malicious actors target institutions and individuals to steal sensitive information, conduct fraudulent transactions, and disrupt financial systems, leading to financial losses and undermining consumer confidence.</p>  | <ul style="list-style-type: none"> <li>• The Cybercrimes and Computer Related Crimes Act, 2018 by Botswana Communications Regulatory Authority</li> <li>• Enhanced oversight and frequent inspections of licenced entities.</li> <li>• Customer Due Diligence (CDD).</li> <li>• Public Awareness/notices.</li> <li>• Issuance of guidance notices.</li> <li>• Enforcement action for gross negligence and noncompliance.</li> </ul>  |

| RISK   | MITIGATION MEASURES  |
|--|--|
| <p><b>Physical Security Threats</b> such as cash heists and Automated Teller Machine (ATM) bombings have increased in Botswana. Armed robbers organise cash-in-transit heists, overpowering security company guards and making off with large sums of money. In the past, these incidences have led to significant losses of central bank currency, as well as losses of lives. Financial institutions and businesses also incur costs to improve their security. Generally, these crimes do not only strip businesses off their hard-earned cash, but they also threaten confidence and security in the financial sector.</p>   | <ul style="list-style-type: none"> <li>• Enhanced stakeholder cooperation at all levels (regulatory, surveillance and law enforcement agencies).</li> <li>• Improved security measures by security companies.</li> <li>• Community responsibility initiatives.</li> </ul>  |
| <p><b>Asset Misappropriation in the NBFIs Sector:</b> The complexity of retirement fund structures and investment vehicles, coupled with inadequate internal controls and oversight, can create opportunities for asset misappropriation to go undetected for extended periods. This lack of transparency and accountability increases the vulnerability of retirement funds to fraud. Asset misappropriation within retirement funds can have devastating consequences for members, jeopardising their financial security and retirement savings. It erodes trust in the retirement savings system and undermines the integrity of fund administrators, leading to reputational damage and legal repercussions.</p>   | <ul style="list-style-type: none"> <li>• Enhanced oversight and frequent inspections.</li> <li>• Public awareness and Issuance of guidance notices.</li> <li>• Enforcement action for gross negligence and non-compliance.</li> <li>• Enforcement of guidelines on corporate governance</li> </ul>   |
| <p><b>Illegal Deposit Taking/ Pyramid and Ponzi Schemes:</b> Illegal deposit-taking refers to an act of receiving, taking, or accepting deposits from members of the public without a valid banking licence. There has been an increase in illegal deposit taking activities, where some companies solicit deposits from members of the public without a licence to do so, for example, by way of recruitment into investing in virtual assets and other digital investments for seemingly significant prospective returns.</p> <p>Meanwhile, pyramid schemes and other illegal deposit-taking activities such as Ponzi schemes or fraudulent investment vehicles are unlawful in Botswana, they are a criminal offence, punishable by law. Illegal deposit taking activities lead to loss of savings and pensions for those who participate in them, additionally they harm consumers' confidence in financial institutions and can potentially destabilise the financial system.</p> | <ul style="list-style-type: none"> <li>• Capacity building and intensified public education by all stakeholders to capacitate consumers with undertaking due diligence at an individual level.</li> <li>• Cooperation and collaboration among regulators and law enforcement agencies.</li> <li>• Proper due diligence by financial institutions.</li> </ul> |

## 5. SOVEREIGN RISKS

### *Rising sovereign vulnerabilities*

5.1 Botswana's economic prospects are mixed, with an anticipated slowdown in 2024 and a projected rebound in 2025. The deceleration in growth is due to poor diamond market performance that has impacted economic activity and fiscal performance. Against this background, wider fiscal deficits, rising public debt and weaker trade balance will be expected as well as further deterioration of external buffers as the sovereign (through balances at the Bank of Botswana) taps into foreign exchange reserves to finance the budget deficits. Further economic downturn or slow recovery translates into reduced fiscal space. Overall, the country remains vulnerable to external sector shocks that could undermine domestic financial stability through the significant role of the public sector in business performance and household incomes.

### *Public debt increasing but remains low*

5.2 Government borrowing programme for 2024/25 fiscal year to finance the budget deficit amounts to P72.5 billion (24.2 percent of GDP). This is expected to involve external and domestic sources that currently stand below the respective 20 percent statutory limit for each. While public debt levels are still sustainable, at under 40 percent statutory limit, government deposits at the Bank of Botswana have decreased over the past decade, indicating weakening fiscal buffers. This makes Botswana susceptible to economic shocks, especially given the projected decline in the diamond trade balance, which is expected to worsen the overall trade balance.

5.3 In light of this, continued fiscal prudence is required to navigate these challenges, including the reprioritisation of capital projects to ensure value for money. Furthermore, there is need to implement necessary reforms to improve the efficiency of public investment to achieve long-term economic stability and resilience.

### *Fiscal deficit wider in 2024/25*

5.4 The 2024/25 government budget proposed total revenue and grants of P93.6 billion and total spending of P102.3 billion, with 70.1 percent allocated for recurrent expenditure. Therefore, the budget deficit is estimated at P8.7 billion

(2.8 percent of GDP). However, given the ensuing poor diamond market performance, the initial government revenue estimates are untenable. There is, therefore, a likelihood of a larger budget deficit for 2024/25 than the estimates. Consequently, the IMF projects the fiscal deficit to be 6 percent of GDP due to the decline in mineral revenues and higher capital expenditure. Thus, medium-term consolidation, in line with plans to achieve a fiscal surplus by 2025/26 fiscal, is critical to restore financial buffers, build economic resilience and preserve fiscal sustainability.

### *External buffers deteriorating*

5.5 Foreign exchange reserves were estimated at P57.8 billion in August 2024; 18.3 percent lower than the P68.4 billion reported in August 2023. In foreign currency terms, the foreign exchange reserves are estimated at USD4.3 billion (2023: USD5 billion) and SDR3.2 billion (2023: SDR3.8 billion). At this level, the foreign exchange reserves are equivalent to 7.8 months of import cover of goods and services, which is way below historical levels. Deliberate and concerted fiscal consolidation efforts should help restore buffers, hence support financial stability.

### *NIIP remains positive*

5.6 Preliminary figures for 2023 indicate that the country's net international investment position (NIIP) was P75.4 billion; a 9.3 percent increase from the revised position of P69 billion in 2022. The underlying drivers were foreign assets, which increased by 11.1 percent to P187.1 billion from P168.4 billion in 2022, against foreign liabilities of P111.7 billion (2022: P99.4 billion). The country's foreign assets are dominated by pension funds' portfolio assets, followed by the official foreign exchange reserves. Notably, the impact of the revised pension fund limits on the domestic economy was modest during 2023, as the repatriation of pension funds is expected to take place gradually over a period of five years. The positive net investment position implies improved external sector resilience overall, which could ultimately strengthen domestic financial stability safeguards. At the same time, significant exposure to external markets exposes Botswana assets to external shocks, although providing the needed diversification benefits.

## 6. CREDIT AND LEVERAGE RISKS

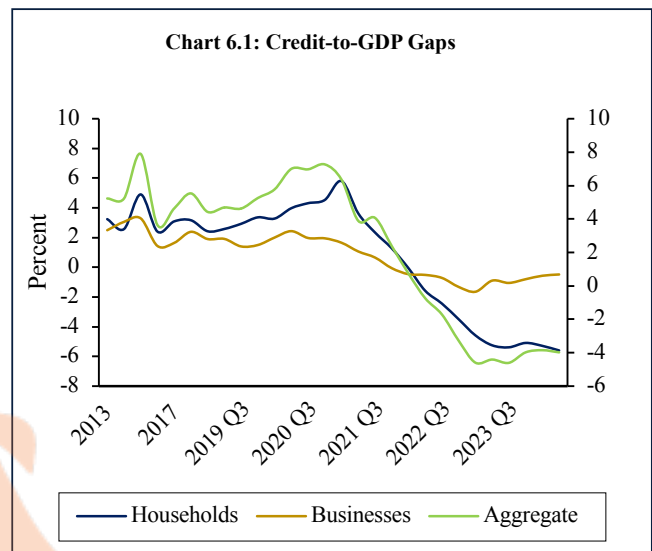
### *Commercial Bank Credit*

*Growth in overall commercial bank credit decelerates*

6.1 Annual growth in commercial bank credit fell to 4.8 percent in August 2024 from the 5.5 percent in the corresponding period in 2023. The slowdown in credit growth was attributable to a lower utilisation of overdraft and revolving credit facilities by businesses, notably parastatals, as well as a decline in the acquisition of mortgage loans by households. Meanwhile, credit quality decreased marginally, with an overall non-performing loans (NPLs) ratio of 3.8 percent in July 2024, compared to the 3.7 percent in July 2023.

6.2 Household borrowing remains a key driver of total credit, having grown by 4 percent year-on-year to August 2024 compared to annual increase of 3.7 percent in August 2023 (Chart 6.4a). Motor vehicle and personal or unsecured loans were the significant drivers of increase in credit to households. The more expensive unsecured loans continue to dominate household credit at 68.3 percent (Chart 6.4d), which presents potential channel of debt distress for households, especially when financial and borrowing conditions suddenly and sharply tighten. Overall, household credit dominated total credit at 64.4 percent against 35.6 percent for business credit (Chart 6.2b).

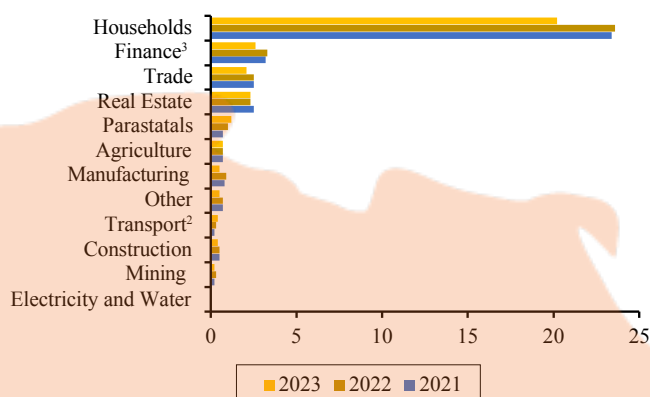
6.3 Credit developments currently pose limited risks to financial stability as supported by a negative Credit-to-GDP gap. The gap was at -4 percent in June 2024, indicating the absence of rapid and excessive credit growth that could cause credit bubble, but rather suggestive of room for prudent credit extension to sustain economic activity (Chart 6.1). The Credit-to-GDP gap is calculated as the Credit-to-GDP ratio less its long-term average or trend. A gap of 10 percent is a reference threshold and any value above this threshold indicates excessive and rapid credit growth that could overheat the economy.



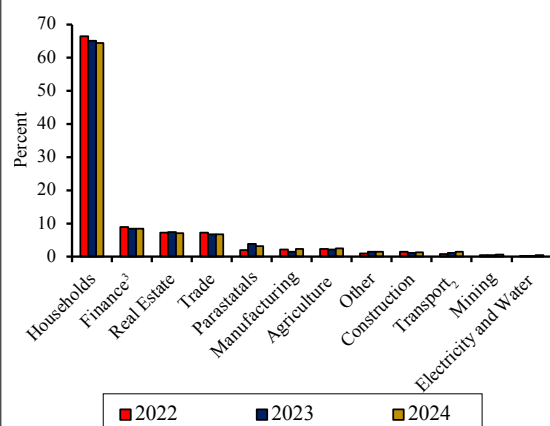
## Composition of Banking Sector Loans<sup>1</sup>

*Household loans dominate commercial banks' loan portfolio*

**Chart 6.2a: Sectoral Loans to GDP**



**Chart 6.2b: Sectoral Loans to Total Loans**



Notes:

- <sup>1</sup> Sectoral contributions are calculated as a percentage of total commercial banks loans and sub-sector contributions are calculated as a percentage of sector loans.
- <sup>2</sup> Transport and Communications.
- <sup>3</sup> Finance and Business Services.

### *Household Borrowing*

#### *Household debt remains sustainable*

6.4 The Bank conducted a Household Indebtedness Survey (HIS) for 2023 (Box 2) to identify and assess credit developments in the household sector. As of December 2023, total household debt was estimated at P61 billion, where P54.1 billion (88.6 percent) was commercial bank loans, P6.4 billion (10.5 percent) micro-lender loans, and P526 million (0.1 percent) in hire purchase loans. Compared to 2022, household loans grew by 4.6 percent from P58.3 billion. While household debt levels are rising as access to credit expands, the debt is not a major concern due to the moderate credit growth, conservative borrowing culture, stringent risk management policies by banks to ensure creditworthy borrowing, and a stable and well-regulated banking sector. Additionally, the country has low Credit-to-GDP ratio anchored on sound macroeconomic management which reduces the need for excessive household borrowing, thus limiting potential risks.

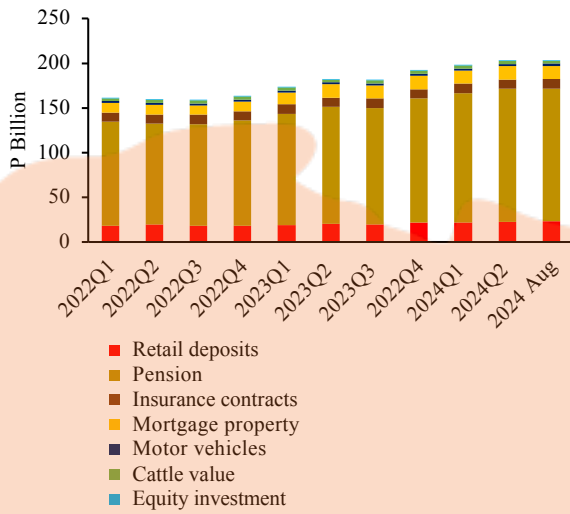
6.5 The Survey finds that an average of 67.5 percent of total household loans have deduction from source arrangements, which effectively reduces the likelihood of widespread defaults on household debt. Consequently, in the banking sector, the household portfolio showed good credit quality with an NPLs ratio of 2 percent in June 2024, which is lower than the 2.2 percent in June 2023 and the banking industry average of 3.6 percent (Chart 6.4c).

6.6 On the other hand, households are net savers when considering their non-discretionary contractual pension savings and other assets (Chart 6.3a). Pension assets are important for mortgage debt relief under the Retirement Funds Act of 2022, but also improve the long-term financial welfare of households and in general, underpin wealth creation and financial security for retirees. Chart 6.3b indicates a positive net worth of households, which indicates a healthy financial standing. The estimated net worth of households as a percentage of GDP increased to 55.8 percent in the second quarter of 2024 from 47.8 percent in the second quarter of 2023, reflecting a higher increase in net worth compared to the growth in GDP.

## Household Net Worth Estimation

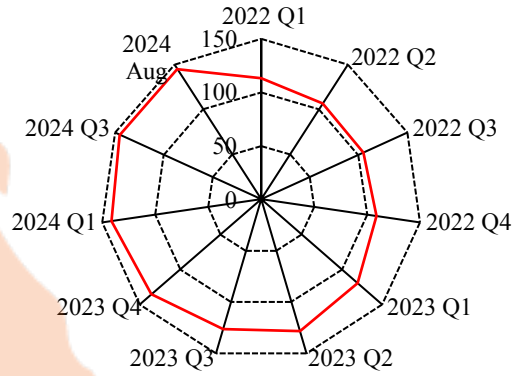
*Pension savings dominate household assets*

**Chart 6.3a: Distribution of Household Assets**



*Households' net worth is increasing*

**Chart 6.3b: Total Household Net Worth (P Billion)**

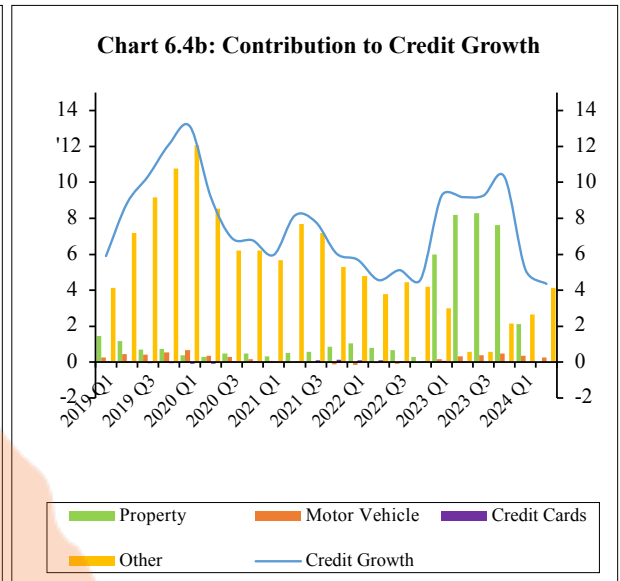
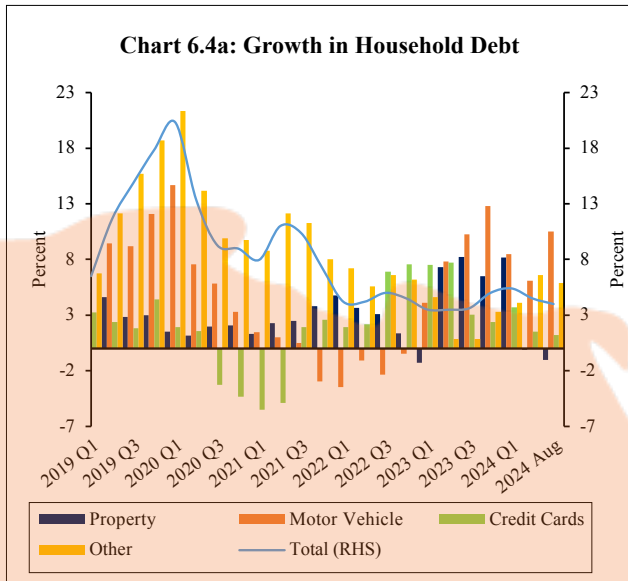


Source: Bank of Botswana, Botswana Stock Exchange Limited and Statistics Botswana

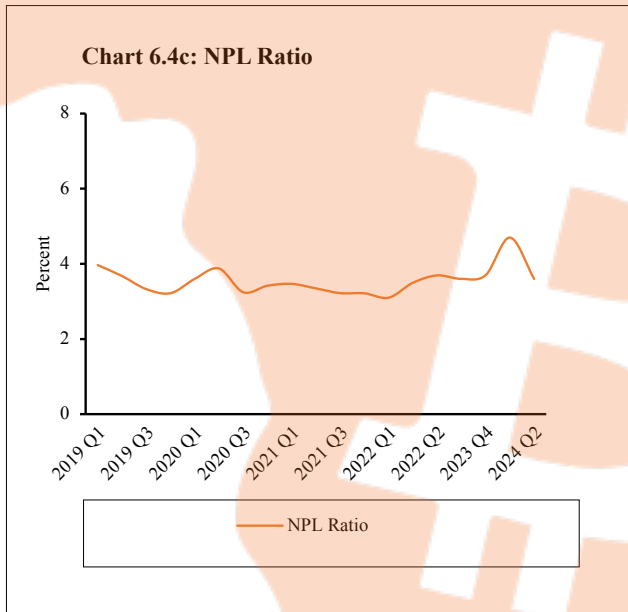


## Household Debt Analysis

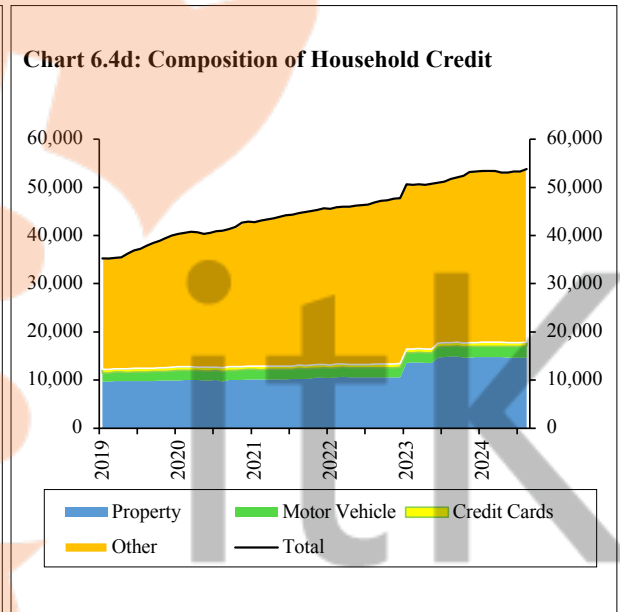
*Personal loans (other) are the major driver of household credit growth*



*Both the debt burden and default rates are decreasing*



*Personal loans dominate household debt*



## Box 2: Summary of the 2023/24 Household Indebtedness Survey

### Introduction

In recent years, the Bank has observed that commercial bank lending is highly concentrated in the household sector, and particularly on unsecured loans. This concentration has the potential to undermine financial and economic stability in the event of wide-spread employment losses. With a view to enhance understanding of household borrowing across the full spectrum of the financial system, the Bank has undertaken to conduct an annual household indebtedness survey covering banks, micro-lenders and hire purchase stores.

The Survey period was fraught with uncertainty in the global economy. In the first half of 2023, central banks globally battled with balancing financial stability and price stability objectives amid heightened inflationary pressures at the beginning of 2023. At the same time, global economic conditions were uncertain due to heightened geopolitical tensions and trade restrictions involving China and the major economies. Higher policy interest rates by central banks contained inflation but led to an increase in the cost of living and eroded household real incomes and purchasing power. The second half was characterised by abating global inflationary pressures and optimism about potential monetary policy easing in 2024. However, weak fiscal positions in emerging and developing economies continued to pose a threat to global financial stability. In the same period, the domestic economy experienced weaker economic performance with real gross domestic product growth falling to 2.7 percent in 2023 from 5.5 percent in 2022. The slowdown, which resulted from a decline in diamond production and sales, is expected to moderate optimistic expectations for higher domestic economic growth in 2024, and, possibly, slowdown household credit growth.

### Summary of Findings

As at the end of December 2023, total household debt was estimated at P61 billion, comprising P54.1 billion (88.6 percent) commercial bank loans, P6.4 billion (10.5 percent) micro-lender loans and P526 million (0.1 percent) being hire purchase loans. Compared to the 2022 survey, total household loans grew by 4.6 percent from P58.3 billion. As a percentage of GDP, total household debt was 23.1 percent in December 2023, from 23.2 percent in December 2022. These rates are significantly lower relative to comparator countries, with latest data for South Africa (2023) and Mauritius (2022) showing ratios of 64.7 percent and 47.7 percent, respectively. Furthermore, the results of the Survey show that households had debt-to-income (DTI) and debt-service-to-income (DSTI) ratios of 53.5 and 70.5 percent, respectively. This compares with DTI and DSTI of 58 percent and 60 percent, respectively, in the 2022/23 survey.

Consistent with the findings of past surveys, it is also found that men borrow more than women across all financial institutions. This finding is consistent with the Quarterly Multi-Topic Survey (QMTS) for 2023 which found that there are more men (51.2 percent) in the labour force compared to women (48.8 percent). It also aligns to the fact that men have a higher employment to population ratio at 51 percent against the 41.7 percent for women, according to the 2023 QMTS. The survey further establishes that loans are dominated by persons aged 36 - 49 years. In terms of income, households earning between P15 001 and P25 000 account for most of the borrowing across commercial banks and micro-lenders. In light of the higher proportion of men in overall employment and, therefore, borrowing across lender institutions, it is necessary that the Bank and the Government, together with the private sector, continue to pursue policies and strategies that promote gender-balanced economic empowerment initiatives and financial

inclusion opportunities to support a sustainable and inclusive economic growth model.

A breakdown of household borrowing by income groups shows that banks and micro lenders lend mostly to clients with an average monthly income between P15 001 and P25 000, followed by those earning between P9 001 and P15 000. Overall, the distribution of loans by income groups for banks shows that access to credit is skewed towards higher income earners, while for micro-lenders it is towards those earning lower incomes. Additionally, higher income earners mostly get mortgage and motor vehicle loans while low-income earners are more concentrated in unsecured borrowing. Debt-to-Income Ratios (DTIs) for each income category reveal that customers earning between P3 000 and P15 000 have higher DTIs and, therefore, are more at risk of financial strain or credit default.

Considering the distribution of loans by employment source, banks have the highest amount of loans with government employees, while micro-lenders have a more diverse customer base. Furthermore, private sector employees' bank loans are spread across customers with different employment (not just government) and the diversity has the potential to alleviate credit losses in the event of widespread private sector stress. The Survey also finds that of all total household loans, an average of 51.5 percent are scheme loans, and 67.5 percent of those have deduction from source arrangements. The deduction from source arrangement contributes to the stability of the loan book and a relatively high-quality credit portfolio. This is supported by the low risk of widespread employment losses by government and private sector employees.

The survey also establishes that DTIs across all age groups and gender classification are generally consistent with established economy theory with low credit at younger ages and growing DTIs during working years, and finally DTIs fall at retirement ages. However, women in the 50 - 65 age group tend to have slightly higher DTI ratios than men of the same age. This discrepancy could be attributed to various factors, including potential gender wage gaps, due to career interruptions for caregiving, and differing financial priorities.

Default rates were generally low for banks in 2023, with the non-performing loans to total loans ratios ranging from 1 percent to 6 percent, and a default rate of 1.68 percent. Most of the banks assessed the default rates for 2023 to be low, and to continue to be low in 2024. The optimism surrounding household loan performance is due to anticipated increases in household income and increasing economic activity backed by the expansionary fiscal budget.

On the cost of borrowing, interest rates charged on micro-lenders and hire purchases increased from an average of 27 percent in 2022 to an average of 29 percent in 2024. Prime lending rates for mortgages and motor loans were lower at 10.5 percent and 11.3 percent, respectively, and generally reflected easing monetary policy in 2023. Overall, credit card loans are the most expensive, with a maximum prime lending rate of 24.6 percent, followed by unsecured loans with a maximum of 20.5 percent.

### **Conclusion**

Generally, the Survey suggests that the level of household indebtedness in 2023 posed minimal risks to financial stability. Credit was largely extended to the clientele that had the most secure jobs and the quality of the household loan book, for the largest credit provider (banks), was relatively good. To that extent, credit extension remains positive for economic activity and wealth creation, albeit costly for some categories of loans.

## *Non-Financial Corporates Credit*

### *Corporate sector exposures increase*

- 6.7 Total commercial bank credit to the non financial corporate sector increased from P24.9 billion in August 2023 to P26.6 billion in August 2024. As a result, the proportion of corporate loans to total commercial banks credit rose marginally from 31.2 percent to 31.8 percent. Relative to GDP, bank credit to the corporate sector increased slightly to 11.2 percent in June 2024 from 10.7 percent in June 2023 and remains low by region standards. For instance, South Africa had a ratio of 32 percent in December 2023<sup>5</sup> while Namibia recorded 72.4 percent at the end of 2023<sup>6</sup>. This reflects room for prudent credit mobilisation to support business activity and, in turn, domestic economic growth.

### *The corporate sector recovery challenged by leverage*

- 6.8 Selected financial soundness indicators of corporates listed on the Botswana Stock Exchange (BSE) indicate improved sector performance. Profitability improved, resulting in an increase in the return to equity. The cost-to-income ratio increased from 74.9 percent in 2021 to 81.7 percent in 2022 due to resumption in normal operation, which translated into increased production and, in turn, rising operating costs. Corporate leverage increased, with a debt-to-equity ratio of 102.6 percent in 2022 from 85.2 percent in 2021, suggesting that corporates have applied significant external funding in their operations. The increased leverage could cause corporate debt overhang and distress in the event financial conditions tighten suddenly. Meanwhile, the quality of corporate sector loans remained the same between December 2022 and December 2023, with an NPLs ratio of 5.7 percent.

## *Property Market Credit*

### *Limited risks from commercial real estate*

- 6.9 Commercial real estate (CRE) credit increased to P5.8 billion in August 2024, from P5.7 billion in August 2023 and constituted 7 percent of total loans (Chart 6.5b). The CRE sector recorded a moderate NPLs ratio of 1.7 percent in June 2024 and poses limited risks to

domestic financial stability. There are, however, outstanding concerns about concentration (location) risk, given that most loans finance properties in or around Gaborone<sup>7</sup>.

### *Mortgage lending short of development needs*

- 6.10 Residential real estate loans decreased slightly to P15.5 billion in August 2024 from the P15.7 billion in August 2023, constituting 26.5 percent and 17.4 percent of total household credit and total credit, respectively (Chart 6.5a). At the same time, growth in incomes could be restrained relative to the increase in residential house prices over the years (possibly reflecting limited housing stock in various categories, or availability of land and affordability of building materials).

### *Limited credit risk from mortgage lending*

- 6.11 Credit risk in the mortgage sub-sector remains low, with commercial banks maintaining moderate loan-to-value (LTV) ratios, although the ratios have reached 105 percent in some isolated cases (Chart 6.6). The moderate LTV ratios, as well as security in the form of property financed limit the expected losses of banks from mortgage credit default. The proportion of impaired mortgage loans to total mortgage declined from 6.9 percent in December 2022 to 6.3 percent in December 2023, reflecting in part, the diminishing adverse effects of the COVID-19 pandemic on households. Overall, given the limited exposure as well as the self-secured nature of real estate facilities, vulnerabilities in the sector pose minimal risk to financial stability, but prospective developments require continuous close monitoring and assessment.

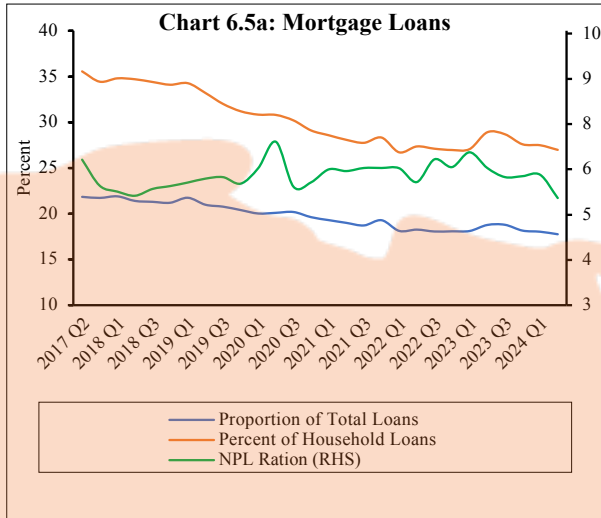
5 SARB Financial Stability Review, First Edition 2024.

6 Namibia Financial Stability Report, April 2024

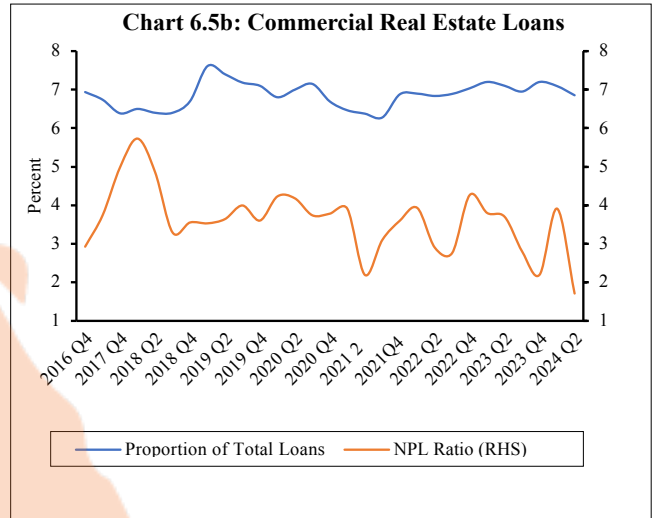
7 Bank of Botswana Residential Property Survey Report (Second quarter 2024) and Riberry Property Market Report, first quarter 2024.

## Property Market Developments

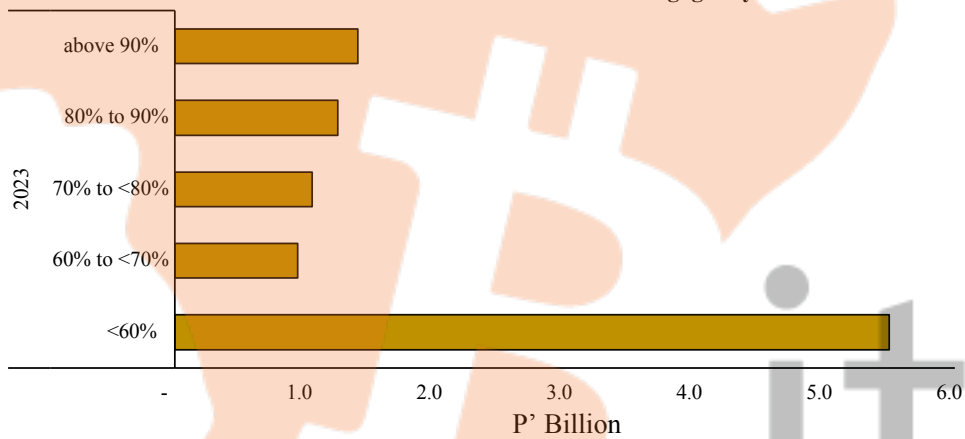
*Mortgages as a percentage of both total loans and household loans and the NPL ratio are stable*



*The proportion of CRE loans to total loans is stable and the NPL ratio is modest*



**Chart 6.6: Distribution of Mortgages by LTV**



## 7. LIQUIDITY AND FUNDING RISK

### *Banking Sector Liquidity and Funding*

#### *Average market liquidity decreased*

- 7.1 Average daily market liquidity decreased in the second half of 2024, due to persistent foreign exchange outflows and a slowdown in the pace of net government expenditure. Banks, however, maintained adequate liquidity positions, with a liquidity ratio of 26.1 percent in August 2024, partly supported by excess pension assets.

#### *Deposit concentration exposes banks to funding risks*

- 7.2 The banking sector remains vulnerable to funding risk arising from a concentrated deposit base. Commercial banks' funding structure is concentrated in few wholesale deposits as reflected in the top 20 deposits to total deposits ratio of 28.5 percent in August 2024 from 26.4 percent in August 2023. This position highlights the potential increase in funding costs due to the inherent volatility and expensive nature of wholesale deposits.
- 7.3 The banking industry continues to provide healthy levels of credit intermediation, with an intermediation ratio<sup>8</sup> of 74 percent in August 2024 (2023:78.1 percent). The rate of intermediation is within the 50 – 80 percent range, thus continues to support enduring economic growth.

### *Interbank Funding*

#### *Non-Domestic Systemically Important Banks (Non-DSIBs) dominate the interbank lending market*

- 7.4 Consistent with the decline in overall market liquidity, interbank activity increased from P5.7 billion in July 2024 to P17.5 billion in August 2024 as banks sought each other to meet their immediate funding requirements. Non-D-SIBs contributed 67.1 percent to total interbank lending and took up 51.2 percent of total interbank borrowing.

### *Foreign Currency Funding*

#### *US dollar funding risks remain limited*

- 7.5 Domestic commercial banks' exposure to foreign exchange risks is highly limited and poses minimal threat to overall financial stability. This is reflected in both the overall net foreign exchange position and USD net open position of the banks. The overall net open position of banks decreased from P485 million in June 2023 to P101 million in June 2024. The exposure represents 1 percent of unimpaired capital and remained significantly well within the prudential limit of 30 percent of unimpaired capital (Chart 7.1a). At the same time, the Pula equivalent overall net exposure of the domestic banking system to the US dollar increased to P295 million in June 2024 from P248 million in June 2023, translating into 2 percent of the industry's unimpaired capital and therefore showing limited risks from US dollar funding.

#### *Limited exchange rate volatility*

- 7.6 In the year to September 2024, the nominal Pula exchange rate depreciated by 4.8 percent against the South African Rand but appreciated by 1.3 percent against the Special Drawing Rights (SDR). The movement of the Pula against the SDR constituent currencies largely reflected the performance of the South African Rand against SDR constituent currencies.

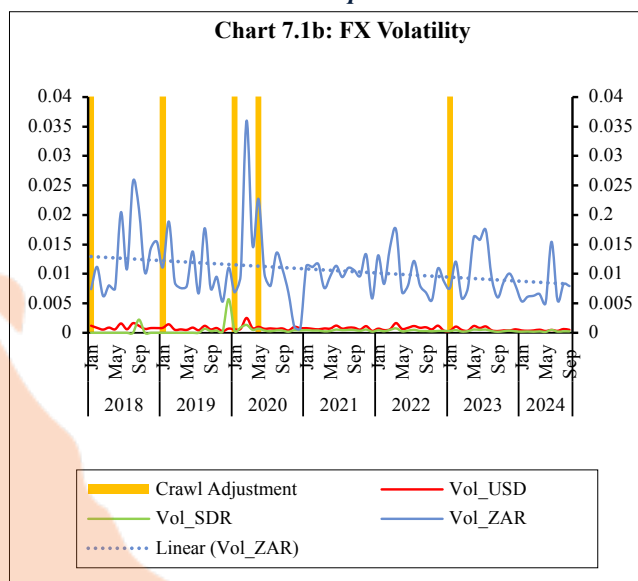
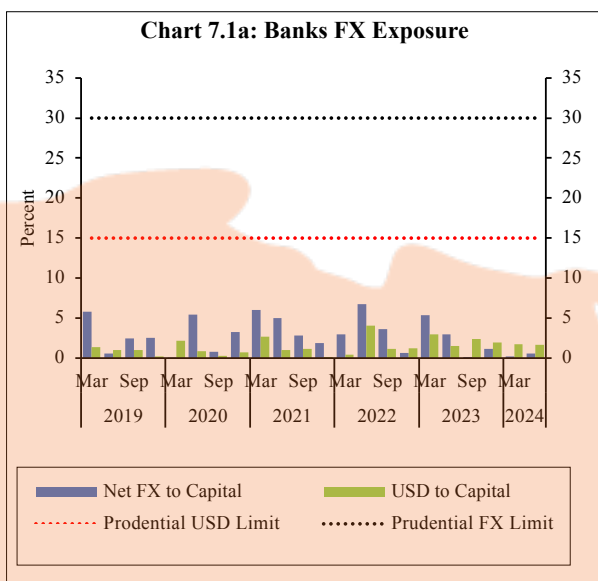
In that regard, the South African rand appreciated by 6.4 percent against the SDR. In general, volatility in the Pula exchange rate has been contained since May 2020 (Chart 7.1b), hence presenting limited risks to the domestic financial system and economy.

<sup>8</sup> Measured as a ratio of loans to deposits, the financial intermediation ratio measures the extent to which funds (excess) are availed to those who need them.

## Foreign Currency Funding and Exposure

*Banks FX exposure is well below the prudential limits*

*Volatility of the BWP/ZAR nominal exchange rate has reverted to pre-COVID-19 levels*



Source: Bank of Botswana

### Capital Markets – Equity Funding

#### Market capitalisation and liquidity improves

7.7 The total equity market value of domestic listed companies gained 11.6 percent, year on year, to P51.8 billion in September 2024 (September 2023: P46.4 billion). The gains reflect the overall growth and maturity of the stock market, and the increased participation of institutional investors in their efforts to place repatriated pension funds. The increase in listed equity valuations is mainly due to the increase in share prices of some companies, with CA Sales leading with gains of 48.1 percent in share prices, followed by Sechaba at 41.3 percent.

7.8 Due to the revaluation of listed companies, turnover for traded equities increased significantly in 2024, and the momentum is expected to carry on into the medium term, leading to an improvement in market liquidity (Chart 7.2c). Coupled with BSEL's public awareness campaigns, this led to a surge in the liquidity ratio from 2.1 percent in December 2022 to 9.3 percent in December 2023 (September 2024: 11.4 percent).

*The domestic stock market is profitable but volatile*

7.9 Profitability in the domestic market improved significantly as demonstrated by a 16.5 percent appreciation in the domestic company total return index (DCTRI) in September 2024 against an appreciation of 20.2 percent in the corresponding period in 2023<sup>9</sup>. Furthermore, developments in market capitalisation in the twelve months to September 2024 translated into a stronger performance of the domestic company index (DCI) (Chart 7.2d). The DCI continued to recover from the slump observed in 2016 and it increased to 8662 in September 2023, and to 9653 in September 2024.

7.10 On the other hand, the volatility<sup>10</sup> in the stock market observed at the end of 2023 and into the first few months of 2024 has since abated for both primary and secondary listings. However, the volatility remains high compared to recent years, potentially reflecting the inherently risky nature of equity markets (Chart 7.2f). The volatility of the foreign company index (FCI) is still relatively high compared to history average, owing to significant upward revaluations of equity prices for Anglo-American Company, CA Sales, and Investec over the twelve months to December 2023.

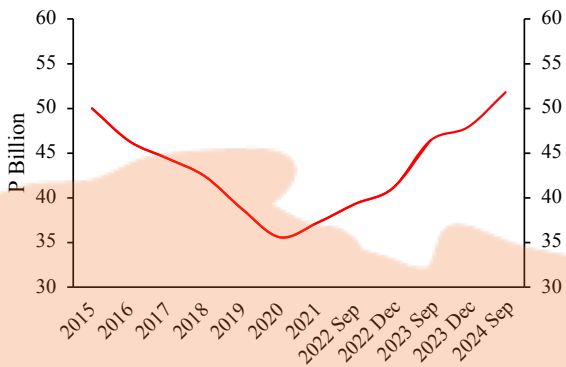
<sup>9</sup> The DCTRI shows gains (or losses) in equity positions due to market capitalisation appreciation (or depreciation) and dividend returns.

<sup>10</sup> Measured as the 12-month standard deviation of the DCI.

## Stock Market Developments

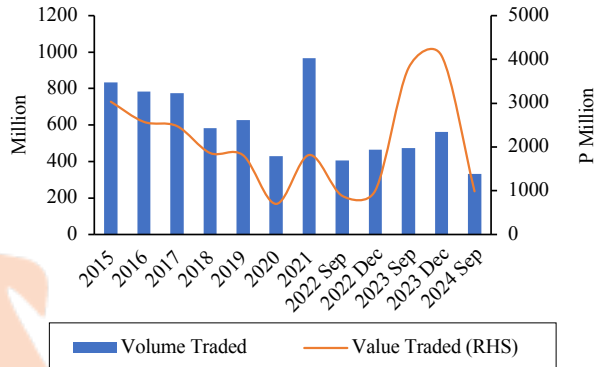
*Stock market capitalisation is increasing*

**Chart 7.2a: Market Capitalisation**



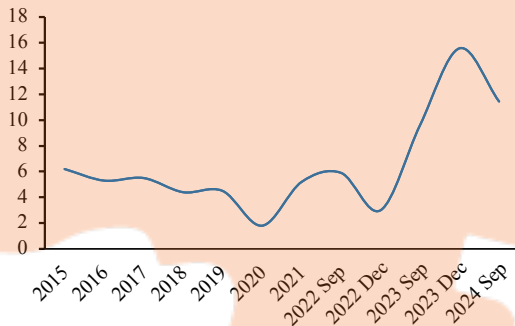
*BSE trade by value and volume is decreasing*

**Chart 7.2b: BSE Trading**



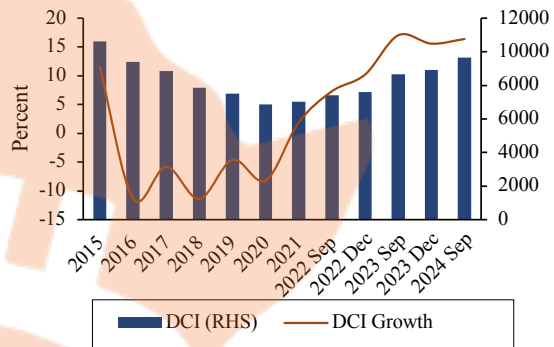
*Liquidity in the BSE is decreasing*

**Chart 7.2c: Liquidity Ratio**



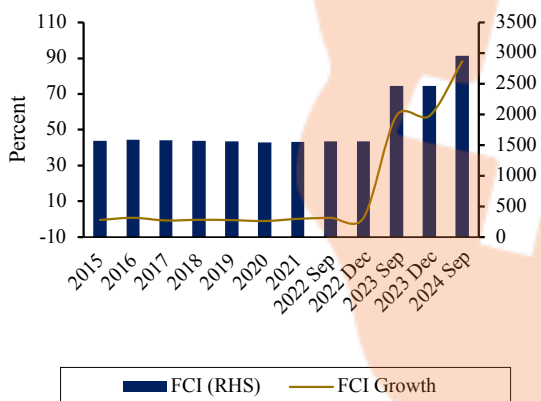
*The DCI is improving*

**Chart 7.2d: DCI**



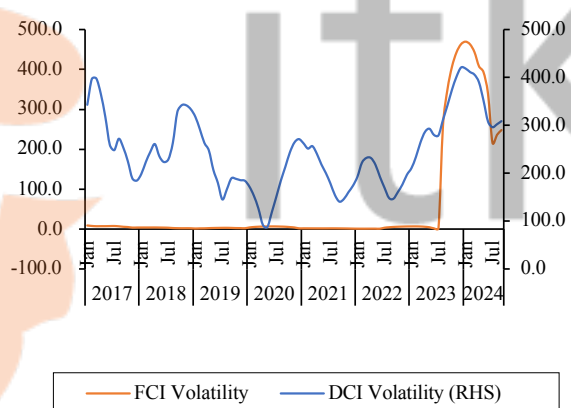
*The Foreign Company Index is improving*

**Chart 7.2e: FCI**



*Stock market volatility declining*

**Chart 7.2f: Market Volatility**





## *Capital Markets – Bond Market Funding*

### *Government bonds drive market capitalisation*

7.11 Bond market capitalisation increased by 27.6 percent to P33.5 billion in the twelve months to September 2024 from P26.3 billion in September 2023, owing to the listing of new corporate bonds on the stock exchange and re opening of existing government bonds (Chart 7.3a). The nominal value of government bonds rose from P21.4 billion in September 2024 to P28.8 billion in September 2024, while corporate bond valuations contracted by 5 percent to P4.7 billion.

7.12 The proportion of government bonds in the nominal value of the fixed income market was 86.1 percent in September 2024 from 81.4 percent in September 2023, indicative of increase in government funding needs. It is also in the context of ongoing commitment by government to deepen and develop the domestic capital markets. Nevertheless, a sustained dominance of government securities has the potential to crowd out capital funding for the private sector and may need to be proportionately scaled down as capital markets mature.

### *Bonds yield spread tightening*

7.13 The spread between average yields on corporate and government bonds decreased from 0.46 percent in September 2023 to 0.24 percent in September 2024. The decrease in the spread reflects increasing yields on government bonds as the fiscal concerns mount due to poor performance of the mining sector. Premiums on corporate bonds have been increasing for the most part of 2024 with the only decline observed in September 2024. This is indicative of a growing risk premium placed on bond securities by investors.

### *Bond market volatility is high*

7.14 The riskiness of all bonds remains high as reflected in the relatively high volatility of the bond indices compared to historical figures (Chart 7.3f). The potential for tightening of funding in the bond market therefore remains, especially in the light of the deteriorating macroeconomic environment. However, the generally accommodative financial conditions domestically, as judged from the real monetary conditions index (RMCI), present funding opportunities in the money markets that could augment any shortfall in capital market funding.

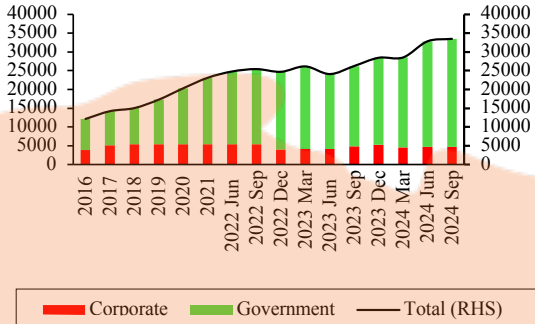
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## Bond Market Developments

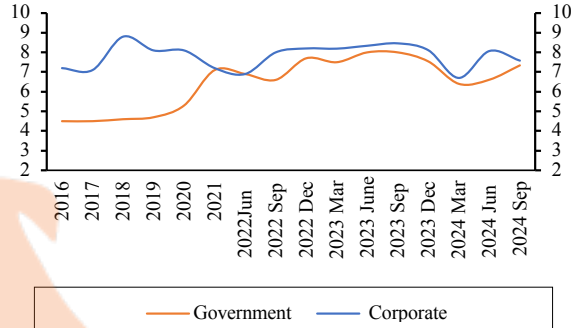
*Government bonds dominate the bonds market*

*Bonds yields still above pre-COVID-19 levels, indicating higher uncertainty*

**Chart 7.3a: Bonds Nominal Values (P Million)**



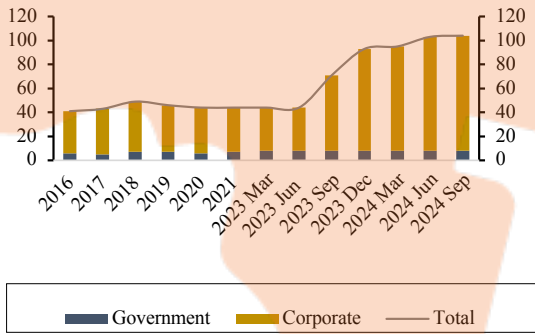
**Chart 7.3b: Bond Yields**



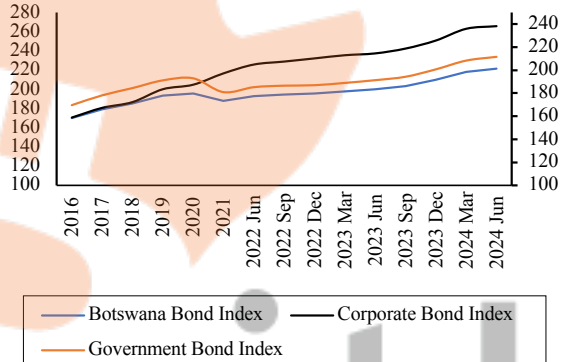
*Corporates have many low-value bonds listed on the BSE*

*Bond indices are trending upwards*

**Chart 7.3c: Number of Bonds**



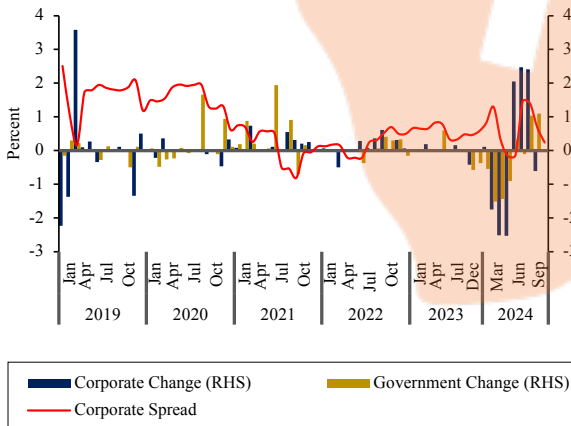
**Chart 7.3d: Bonds Indices**



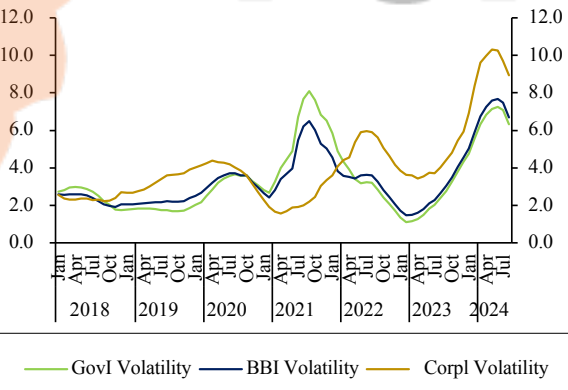
*The corporate spread is narrowing*

*Bonds market volatility is increasing*

**Chart 7.3e: Corporate Spread**



**Chart 7.3f: Bonds Volatility**



Source: Botswana Stock Exchange and Bank of Botswana Calculations

## 8. CONTAGION RISK

### *Systemically important institutions are sound*

- 8.1 Following the designation of Domestic Systemically Important Banks (D-SIBs) (First National Bank Botswana and Absa Bank Botswana Limited) and Domestic Systemically Important Insurers (D-SIIs) for 2024, namely Botswana Life Insurance Limited (life insurer), Hollard Insurance Company of Botswana (general insurer) and Continental Reinsurance Company (reinsurer), regulatory authorities continue to place greater focus on their operational soundness and safety. These institutions have the potential to disrupt the entire financial system upon failure and as such their systemic relevance calls for supervisory specific measures to safeguard financial stability. In this respect, the Bank is developing regulatory requirements specific to D-SIBs while NBFIRA has also strengthened its supervisory framework for D-SIIs. As at August 2024, D-SIBs and D-SIIs were adequately capitalised, liquid and solvent, hence posed limited threat to domestic financial stability.

### *Significant interlinkages pose a risk of contagion*

- 8.2 Significant interlinkages persist in the financial system, with the banking sector at the centre of the system. The banking sector is highly exposed to households (Figure 8.1) and at the same time, households are highly exposed to NBFIs, with most of their assets, mainly pension assets, held by the sector. Moreover, a significant amount of NBFIs assets (59.3 percent) are held abroad, exposing NBFIs to external financial and economic shocks, albeit providing the needed portfolio diversification benefits. NBFIs are also inter-linked with the rest of the financial system through multiple channels, such as deposits held with banks, funding avenues and capital market activities.
- 8.3 As at August 2024, NBFIs had a net lending position to commercial banks (deposits held with banks less loans from banks) of P19 billion. Similarly, NBFIs had bonds worth about P2.4 billion in the domestic market and a listed equity market capitalisation of P8.5 billion in the same period. Pension funds and

asset management companies also hold equity positions in other sectors of the economy through their investment strategies. These interlinkages present a conduit through which contagion risk could be easily transmitted, hence present a potential source of systemic risk. Nevertheless, the risk is moderated by effective regulation and supervision of the domestic financial system.

### *Sovereign-Banks nexus is growing*

- 8.4 Government Bonds held by commercial banks stood at P28.8 billion in September 2024, an increase from P23.1 billion in December 2023. As at June 2024, the exposure, at P28.8 billion, represented 10.8 percent of GDP, compared to 8.8 percent in December 2023. This shows growing interlinkages between banks and the sovereign, thus a conduit of possible fiscal stress to the financial system. This is particularly relevant in the current environment of declining government revenues and mounting pressure on the government to consolidate accounts in the medium term.

- 8.5 Perceptions about the riskiness of the government securities also has the potential to spillover to the pricing of other financial products, and possibly serve as a channel for the transfer of adverse information in the domestic financial system. At the 23 August 2024 bond auction, the demand for government bonds was subdued, with upward pressure on government yields as investors sort higher risk premiums, reflecting perceptions of higher fiscal risk. That notwithstanding, macroeconomic indicators remain favourable, including sustainable public debt levels projected at 24.2 percent for fiscal year 2024/25 and well below the 40 percent threshold.

### *NBFIs are critical sources of banks funding*

- 8.6 Corporates were net lenders to banks in August 2024, with a net lending position of P19 billion. Total deposits by NBFIs comprised 22.4 percent (P22.9 billion) of total customer deposits while they took up only 4.9 percent (P3.9 billion) of total borrowing from banks. The significantly high net saving position of NBFIs with the banks attest to the systemic importance of NBFIs as sources of funds for

the banks. Therefore, due to the counterparty positions between the banks and NBFIs, there is significant risk of losses cascading from banks to NBFIs and vice-versa in the event of an adverse systemic event. Notably, the inability of NBFIs to provide funds for the banking system would have devastating implications for the banks and the financial system.

*Insurance sector is highly concentrated and interconnected*

8.7 By nature, insurance companies cushion the market from extreme events associated with high financial costs. In the domestic market, insurance services are highly concentrated in D-SIIs. This has the potential to cascade losses in the event of distress in any of the D-SIIs, which could impair the provision of insurance services, with devastating consequences for the economy. In view of this, contagion risk and vulnerabilities associated with the insurance sector, especially D-SIIs, are continuously assessed.

8.8 December 2023 data shows that Life insurers dominate the insurance industry, with a market share of 84.9 percent (P19 billion) against 11.4 percent (P2.6 billion) for the general insurers and 3.8 percent (P0.8 billion) for reinsurers. Furthermore, a large concentration of the industry's assets (48 percent) is with the local collective investments units (CIUs), comprising of both money market funds and non-money market funds (MMFs and NMMFs). Furthermore, life insurers are exposed to local CIUs (at 55 percent) than both general insurers and reinsurers. Local NMMFs hold 91 percent of the life insurance industry assets, hence pose a low risk of asset-liability mismatch since NMMFs invest in long-term assets. General insurance is equally exposed to Botswana residents (31 percent), commercial banks, statutory banks and the Savings and Credit Cooperative Society (31 percent). About 41 percent of reinsurance companies' assets are held by residents. Notwithstanding, the risk-based supervision and regulatory approach currently applied by NBFIRA is effective in mitigating the risks identified in the NBFIs sector.

8.9 Insurance companies could affect financial stability and contribute to systemic risk through three potential transmission channels, namely, failure to provide critical services; inability to mitigate risk and compensate for loss with respect to systemically important counterparties; and direct exposures to systemically important financial institutions.

*Financial sector assets increase*

8.10 The size of the financial system as reflected by total assets of banks and NBFIs increased by 12.7 percent to P320 billion in December 2023 from P284 billion in December 2022. NBFIs financial assets (mainly, pension funds) grew, reflecting improved performance in global financial markets. In December 2023, the NBFIs sector accounted for the largest share of financial system assets at 57 percent, compared with 43 percent of the banking sector. The size of the entire financial system represented approximately 121.4 percent of GDP in December 2023, compared to the 112.8 percent in December 2022, demonstrating the significant contribution of the financial sector to the economy.

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## Structure of the Financial System

The structure of the financial system has not changed much since 2016

Chart 8.1a: Structure of the Financial System in 2016

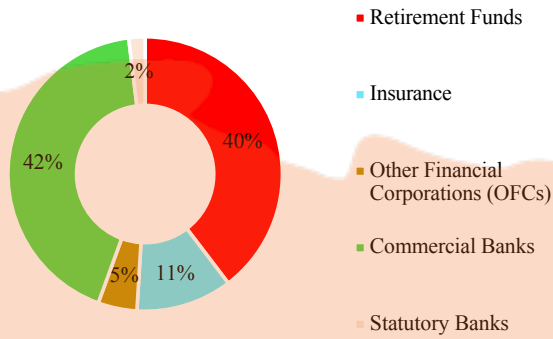
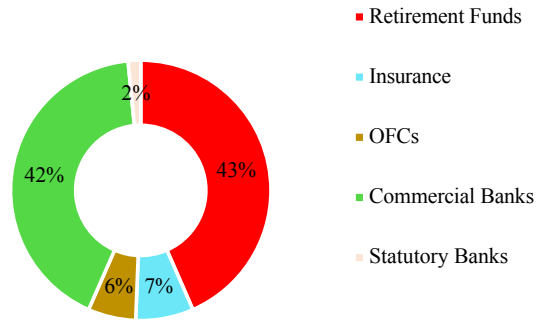
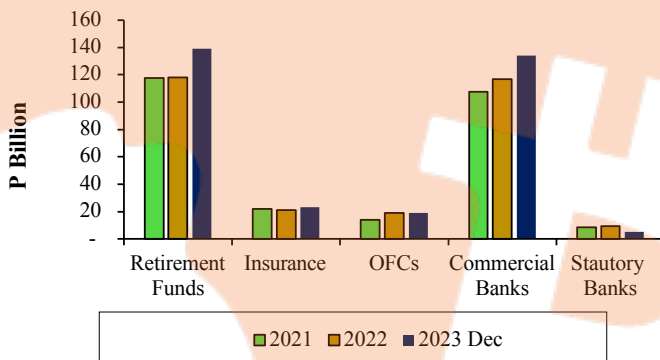


Chart 8.1b: Structure of the Financial System in December 2023



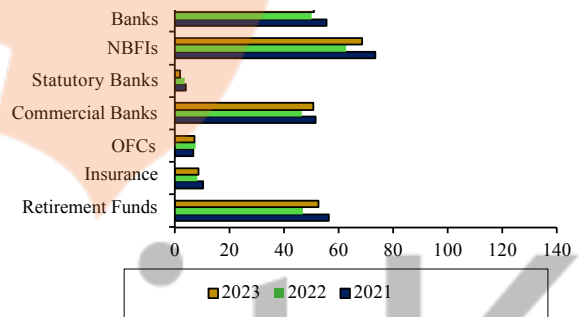
Retirement funds and commercial bank assets are relatively high

Chart 8.1c: Financial System Assets



NBFIs have the largest proportion to GDP owing to the relatively large retirement funds

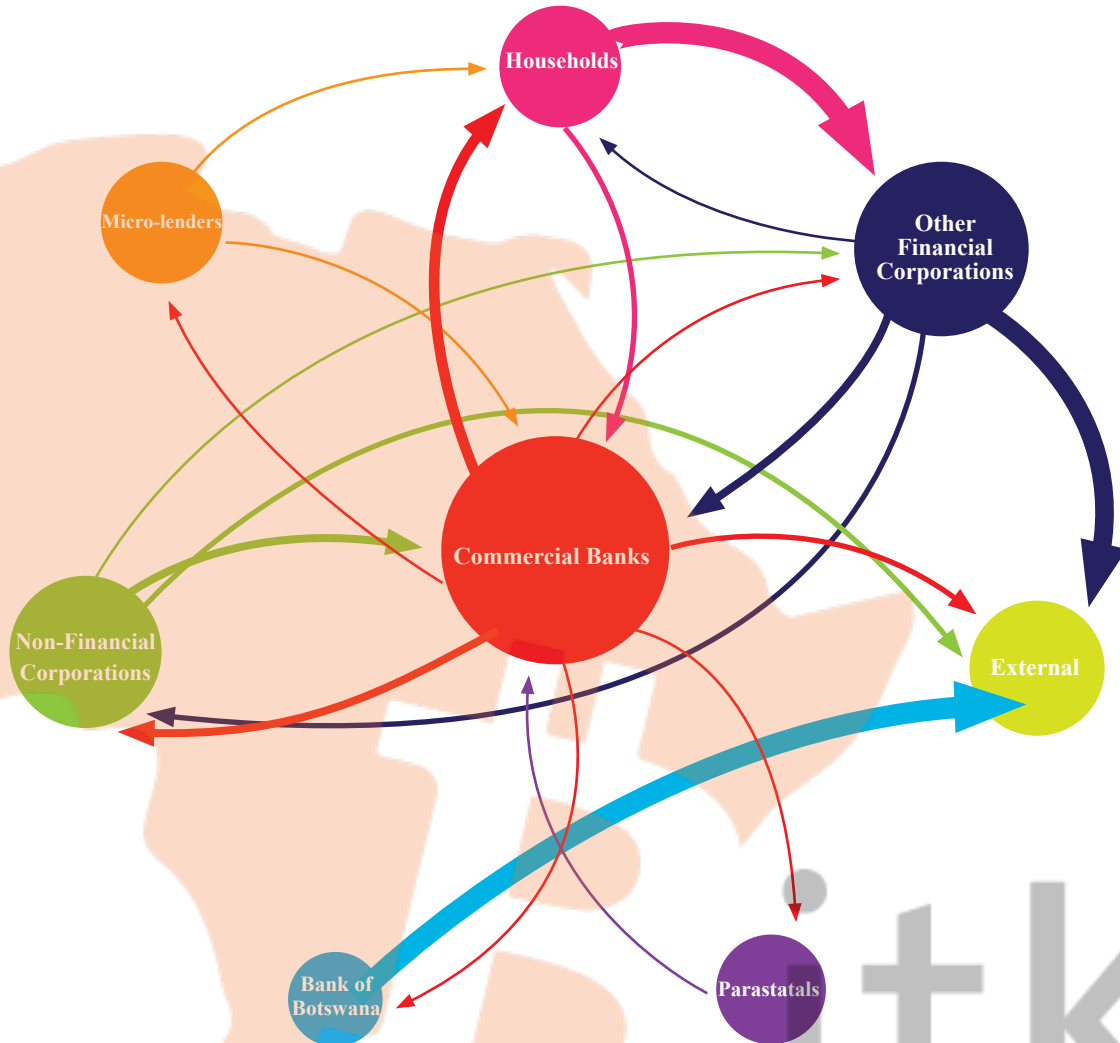
Chart 8.1d: Financial Assets to GDP (Percent)



## Financial Sector Inter-linkages

*Banks are highly interconnected with the rest of the financial system*

Figure 8.1: Macro-Financial Linkages (August 2024)



### Notes:

1. A large node indicates a higher degree of interconnectedness across the financial system.
2. Thicker edges show a higher proportion of funds flowing out of the sector relative to the financial system.
3. Balances from the Bank to the external sector represent net foreign assets.
4. Balances from other financial corporations to the external sector are pension fund assets invested offshore.
5. Balances from commercial banks to the external sector are commercial banks' balances due from foreign banks.
6. See Table A5 in the Appendix for data on the flow of funds across the system and to the (or from) the external sector.
7. For Other Financial Corporations, 76 percent are retirement funds assets (December 2023).

Source: Bank of Botswana

## 9. BANKING SECTOR RISK ANALYSIS

### *Asset Quality and Performance*

9.1 The Botswana banking sector continues to demonstrate robust financial health and a proactive approach to adapting to the evolving financial landscape. Capital adequacy ratios remain strong across the sector, indicating a healthy level of capitalisation and resilience to absorb potential losses (see chart 9.1a). Furthermore, analysis of recent financial reports shows an active adoption of digital technologies, and a commitment to customer centricity.

### *Banks are profitable, adequately capitalised and solvent*

9.2 Banks are demonstrating consistent profitability, with several institutions reporting significant increases in profit before tax for June 2024. This strong financial performance is driven by a combination of factors, including effective asset and liability management, diversified income streams, and cost optimisation measures. The sector also boasts strong capitalisation levels, with capital adequacy ratios well above the regulatory requirements at 22 percent in August 2024 against the prudential limit of 12.5 percent. This robust capitalisation provides a significant buffer against potential losses and enhances the sector's resilience to economic shocks, contributing to overall financial stability.

### *Banks are on a digitalisation drive*

9.3 The banking sector is actively embracing digital transformation, investing in enhancing digital platforms, expanding mobile and internet banking services, and launching innovative solutions to enhance customer experience and promote financial inclusion. This proactive approach to digitalisation positions the sector for continued growth and adaptability in a rapidly evolving technological landscape. Banks are also increasingly prioritising customer centricity, offering tailored products and services, and enhancing customer experience to build stronger relationships and maintain market share in a maturing financial system. The increasing reliance on digital technologies

exposes the sector to cybersecurity risks. Robust cybersecurity measures and continuous investment in security infrastructure are essential to mitigate these risks and maintain the integrity of the financial system.

### *Concentration risk in the banking sector is a concern*

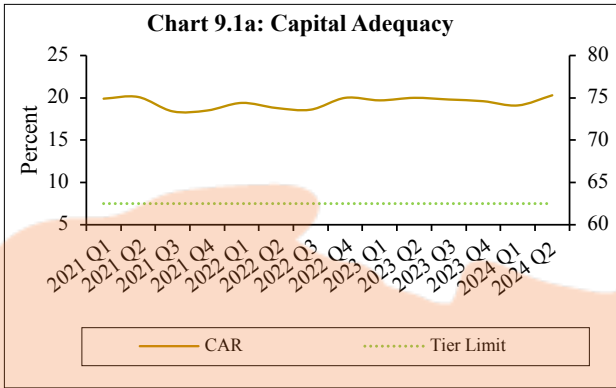
9.4 Despite the noted positive trends, the banking sector faces challenges that require careful consideration and proactive measures. Concentration risk remains a concern, with the four largest banks dominating the market (74 percent of total assets as at end of August 2024), the dominance of household borrowing and wholesale funding. This necessitates continuous monitoring of systemic risk and policies to encourage greater competition within the sector and for the diversification of the banks' funding and lending bases. Non-performing loans (NPLs), while generally on a declining trend (see chart 9.1b), still require close monitoring, particularly in the household sector given the ongoing fiscal strain. This is critical as government employees are the biggest borrowers from banks according to the Household Indebtedness Survey Report of 2023/24.

### *Listed banks show positive investor sentiments*

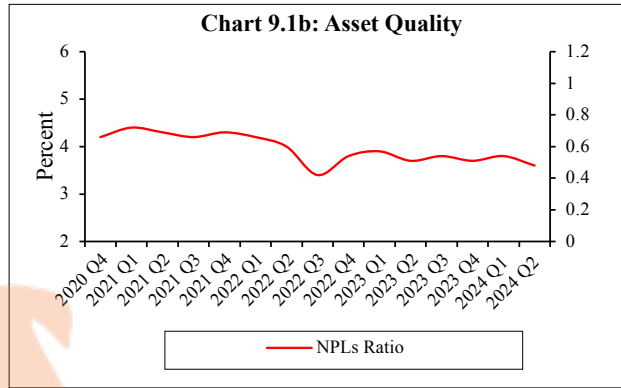
9.5 An analysis of the Botswana Stock Exchange (BSE) data reveals overall positive investor sentiment towards the banking sector, even though some banks experienced a fall in trading prices in the twelve months to October 2024. Of the listed banks, two had price gains above 42 percent in October 2024 compared to the same period in 2023 while one had its trading price fall by just above 10 percent. The fourth bank had a marginal decrease in closing price of just 0.5 percent. The average increase in share prices is signalling positive investment sentiments and underscores a positive outlook for the banking sector amid a challenging macroeconomic environment.

## Banking Sector Financial Soundness Indicators

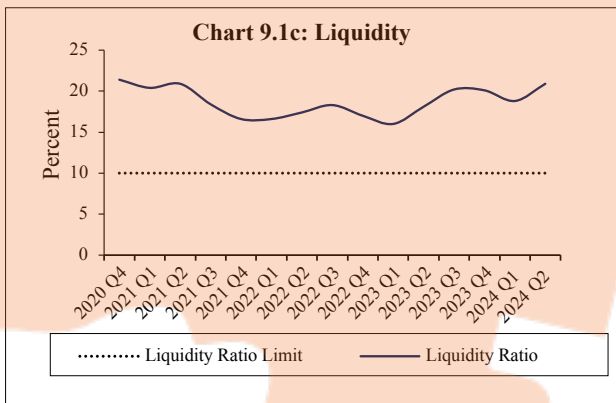
*Banks are adequately capitalised*



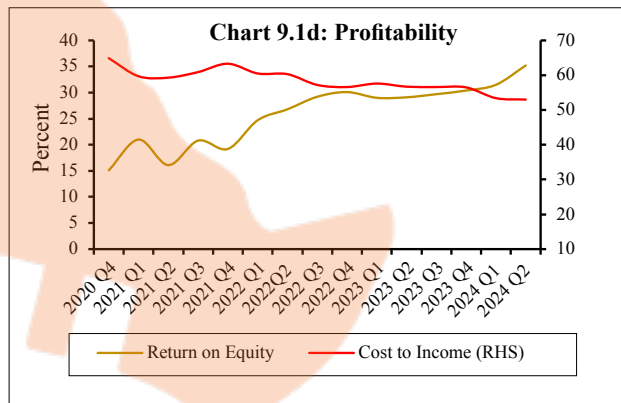
*The NPLs ratio is stable*



*Banks are liquid*



*Banks are highly profitable and costs are declining*



Source: Bank of Botswana

### Stress Test Scenarios

9.6 The stress test assesses the resilience of Botswana’s banking sector, going beyond the numbers to uncover the story behind the data. The analysis puts together global, regional and domestic factors contributing to the stability of the domestic financial system with a view to paint a clear picture of prevailing risks and vulnerabilities pertaining to the banking sector. Factors affecting domestic financial stability include the performance of the diamond sector, household indebtedness, climate-induced vulnerabilities, and a combination of systemic risk factors including contagion risk and exposure to systemically important banks.

#### *Diamond dependency amplifying vulnerabilities*

9.7 The diamond sector has historically fuelled economic growth and development, but it has also created a significant concentration risk. The stress test simulates a scenario where global demand for diamonds plummets, perhaps due

to a global recession or a shift in consumer preferences towards alternative luxury goods. This shock is assumed to reverberate through the economy, impacting government revenues, employment, and ultimately, the ability of borrowers to repay their loans.

9.8 The ripple effect of weakened diamond demand may translate in the scaling down of production by mines, leading to job losses in the mining and related sectors. Household incomes will decline, impacting consumer spending and putting pressure on businesses, particularly those reliant on domestic demand. This scenario translates into higher NPLs for banks, eroding their profitability and capital buffers. The stress test reveals that while banks can withstand a moderate decline in diamond revenues, a severe and prolonged downturn could push some institutions below regulatory capital requirements.



#### *Potential for employment losses*

- 9.9 Botswana faces a growing policy challenge of dominant unsecured household sector borrowing. This concentration risk raises concerns about the resilience of the banking sector to income shocks. The stress test simulates a scenario where unemployment rises and real incomes stagnate, mirroring potential consequences of a global economic slowdown or domestic challenges such as severe drought.
- 9.10 In this scenario, households struggle to service their debt obligations, leading to an increase in NPLs, particularly in the unsecured lending segment. The stress test highlights the vulnerability of banks with high exposure to unsecured loans and emphasises the need for prudent lending practices, robust credit risk assessment, and proactive debt management strategies.

#### *Intensifying climate risks*

- 9.11 Botswana is highly susceptible to climate change, with increasing frequency and intensity of droughts posing a significant threat to the agricultural sector and the broader economy. The stress test incorporates scenarios where prolonged droughts lead to crop failures, livestock losses, and water shortages, impacting livelihoods and economic activity.
- 9.12 These climate-related shocks can affect the banking sector through various channels. For instance, reduced agricultural output can impact the income of farmers and businesses reliant on agriculture, leading to loan defaults. Additionally, droughts can strain government resources, potentially limiting its ability to support the economy and the financial sector in times of stress. The stress test underscores the need for banks to integrate climate risk assessments into their lending practices and develop strategies to manage the financial implications of climate change.

#### *Manifestation of contagion risk*

- 9.13 The stress test goes beyond analysing individual banks to assess the interconnectedness within the financial system and the potential for systemic risk. This involves considering the linkages

between banks, non-bank financial institutions, and other sectors of the economy. For instance, a shock originating in the insurance sector, such as a surge in claims related to drought-induced crop failures, could potentially spill over into the banking sector through reduced insurance payouts and increased credit risk.

- 9.14 The stress test also examines the potential for contagion effects, where the distress of one bank could trigger problems in others. This is particularly relevant D-SIBs, such as First National Bank Botswana and ABSA Bank Botswana, whose failure could have significant repercussions for the entire financial system. The stress test results highlight the importance of close monitoring of D-SIBs, robust supervisory measures, and effective contingency plans to mitigate systemic risk.

#### *Stress Test Results*

##### *Banks resilient but susceptible to severe credit shocks*

- 9.15 The results of credit shocks indicate that commercial banks are generally resilient to stress, save for severe credit shocks that could result in significant prudential capital breaches. Under the system-wide moderate scenario, where an additional 10 percent of performing loans are assumed to become NPLs, bank capital adequacy levels decline to 9.7 percent, breaching the prudential capital adequacy requirement of 12.5 percent. The industry capital position worsens to 0.9 percent in the severe scenario, where 20 percent of performing loans are assumed to become NPLs. As a result, the asset quality declines, with the ratio of NPLs to total loans rising from a baseline of 3.5 percent to 13.2 percent and 22.8 percent under moderate and severe scenarios, respectively (Chart 9.2d).
- 9.16 For the sectoral shocks, under the moderate scenario, banks' CAR falls to 7.7 percent, while the NPLs ratio increases to 15.5 percent. The CAR falls further to 3.3 percent under the severe scenario, and credit quality deteriorates significantly with an NPL ratio of 20.3 percent. Regarding credit concentration shocks, banks remain resilient with a CAR of 13.8 percent

under the assumption that the largest borrower defaults for each bank (moderate scenario). The CAR further falls to 10.7 percent under the severe scenario, which assumes that the largest two counterparties will default.

- 9.17 Under the moderate concentration shock, D-SIBs are resilient, with a CAR above the prudential limit at 13.4 percent for the concentration shock while for the overall NPL shock, D-SIBs breach the prudential limit with a CAR of 10.7 percent. For the severe concentration and overall NPL shocks, CAR falls to 10.8 percent and 2.1 percent, respectively (Chart 9.2a).
- 9.18 In general, credit risk tests show that the overall NPLs shock has more prominence in the capital and asset quality position of banks than other shocks. Nevertheless, credit stress tests do not consider credit mitigation measures, such as underlying collateral.

*Banks are resilient to liquidity shocks*

- 9.19 In the liquidity risk test, banks show resilience to a liability run in the moderate stress scenario, and all banks can withstand liability drawdowns for 17 days. Under severe stress conditions, all banks would be able to withstand drawdowns for 6 days. The results show that dependence on wholesale deposits is prevalent in both bank categories, with a range of 26 to 66 percent of total customer deposits. Therefore, there is need for banks to diversify their portfolios to mitigate liquidity risks.
- 9.20 However, the scenarios do not consider the availability of liquidity support provided by the Bank through the Credit Facility nor liquidity support available from related companies or holding banks. Accordingly, stress test results should not be interpreted to mean that banks would default under these conditions.

*Bank profitability to increase with a policy rate decrease*

- 9.21 Results of the moderate interest rate shock indicate that a fall in the policy rate by 100 basis points would lead to an increase in interest income by P39 million, with an accompanying potential gain of P68 million from repricing

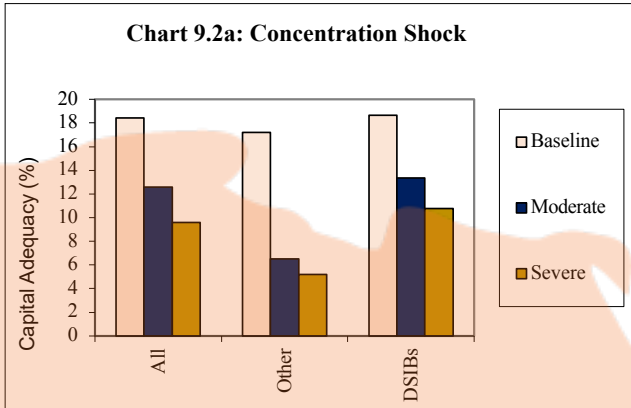
of government bonds. Overall, banks' CAR would increase by 0.62 percentage points in the moderate interest rate shock scenario. For the severe scenario which assumes a 150 basis points decrease in the policy rate, banks would gain P59 million from interest earnings and P102 million from repricing of bonds, leading to an improvement of 0.64 percentage points for the CAR (Chart 9.2f).

- 9.22 The increase in profit reflects the banking industry's negative cumulative repricing gap over the next 12 months, where interest earning liabilities exceed interest earning assets in the stress horizon. Therefore, banks would gain from a fall in funding costs. Overall, domestic banks are highly liquid and can afford to hold bonds to maturity, therefore, there is limited risk stemming from the potential repricing of government bonds.

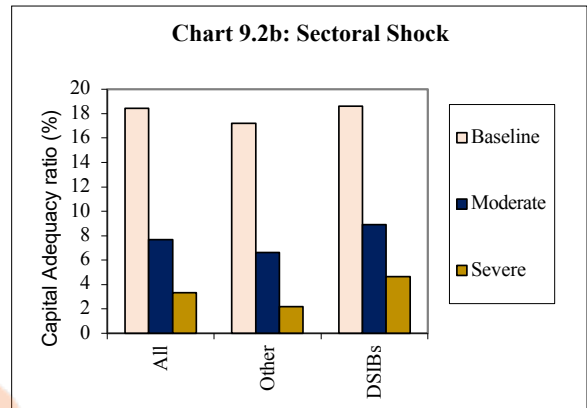
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## September 2024 Stress Test Results Credit Shocks

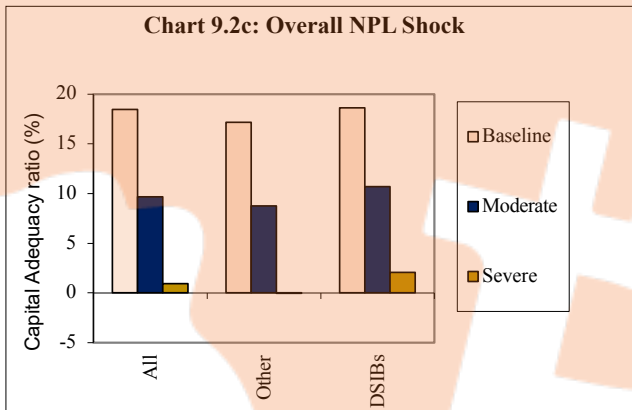
*Banks are generally resilient to credit concentration shocks*



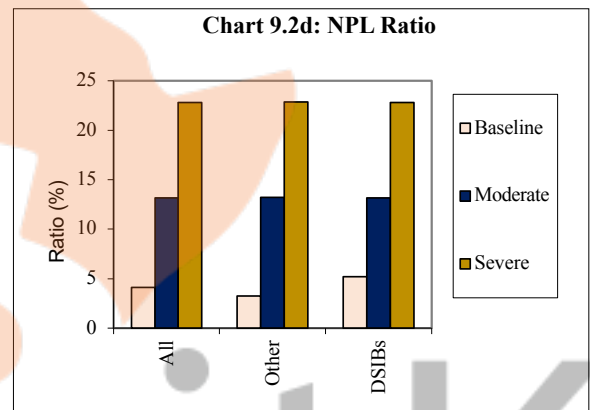
*Severe sectoral shocks would lead to a significant breach in the capital adequacy ratio*



*A severe aggregate credit shock would deplete banks' capital*

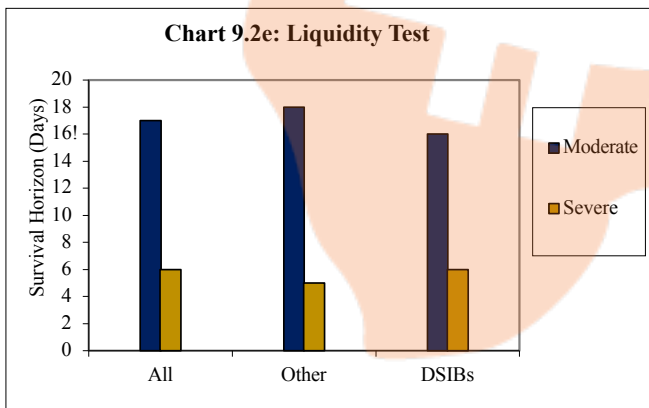


*The NPL ratio for the aggregate credit shock increases significantly in the severe scenario*

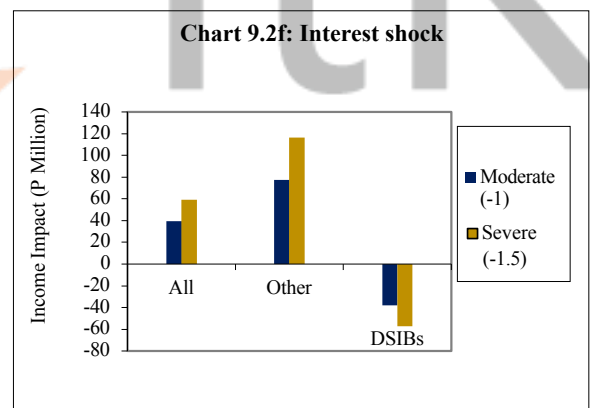


## Liquidity and Interest Rate Shocks

*Banks have low survival horizon under a severe liquidity shock*



*Bank profitability to increase with a policy rate decrease*

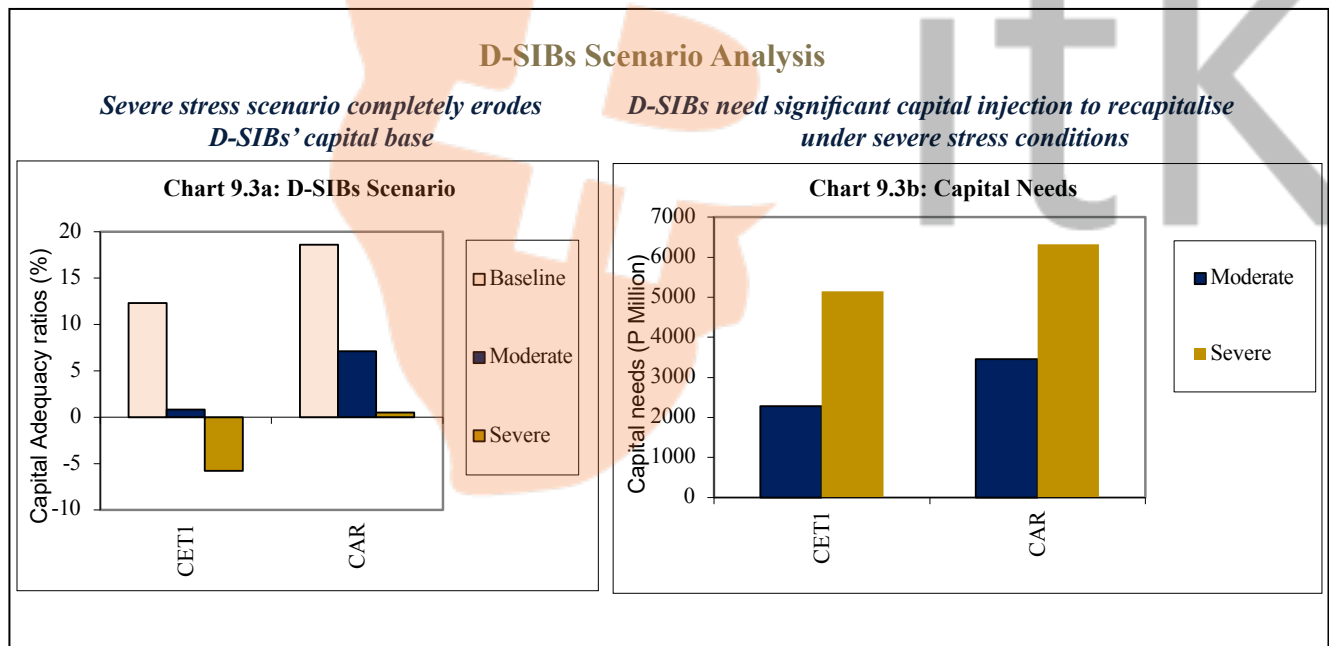


*D-SIBs are resilient to a combination of shocks*

9.23 Considering a combination of shocks for scenario analysis, D-SIBs breach the prudential limit with a CAR of 7.1 percent in the moderate scenario and they are also insolvent in the severe scenario with a CAR of 1.4 percent (Chart 9.3a).

9.24 To capitalise D-SIBs, shareholders would have to inject capital amounting to P3.5 billion in the moderate scenario and P4.7 billion in the severe scenario. Given that credit mitigants are excluded from the stress test scenario, and the loss given default is assumed to be 100 percent, D-SIBs are adjudged to be resilient to a combination of shocks, although susceptible to extreme shocks. To link liquidity risk and solvency of the D-SIBs, it is assumed that D-SIBs are closed out of funding markets if the CAR under stress scenario falls below set hurdle rates. Hurdle rates are set at 8 percent for customer deposits, 10 percent for short term funding and 4 percent for long-term funding. Under these assumptions, D-SIBs are closed out of short-term funding markets and customer deposits in the moderate scenario and there is loss of short term funding amounting to P8.8

billion. As a result, banks would experience a liquidity shortfall on P2.2 billion. In the severe scenario, both D-SIBs are closed out of all funding markets, with an average CAR of 0.5 percent and total loss of funding of P12.8 billion. Consequently, D-SIBs would incur a liquidity shortfall on P6.2 billion in the severe scenario.



## 10. PAYMENTS AND SETTLEMENT RISKS

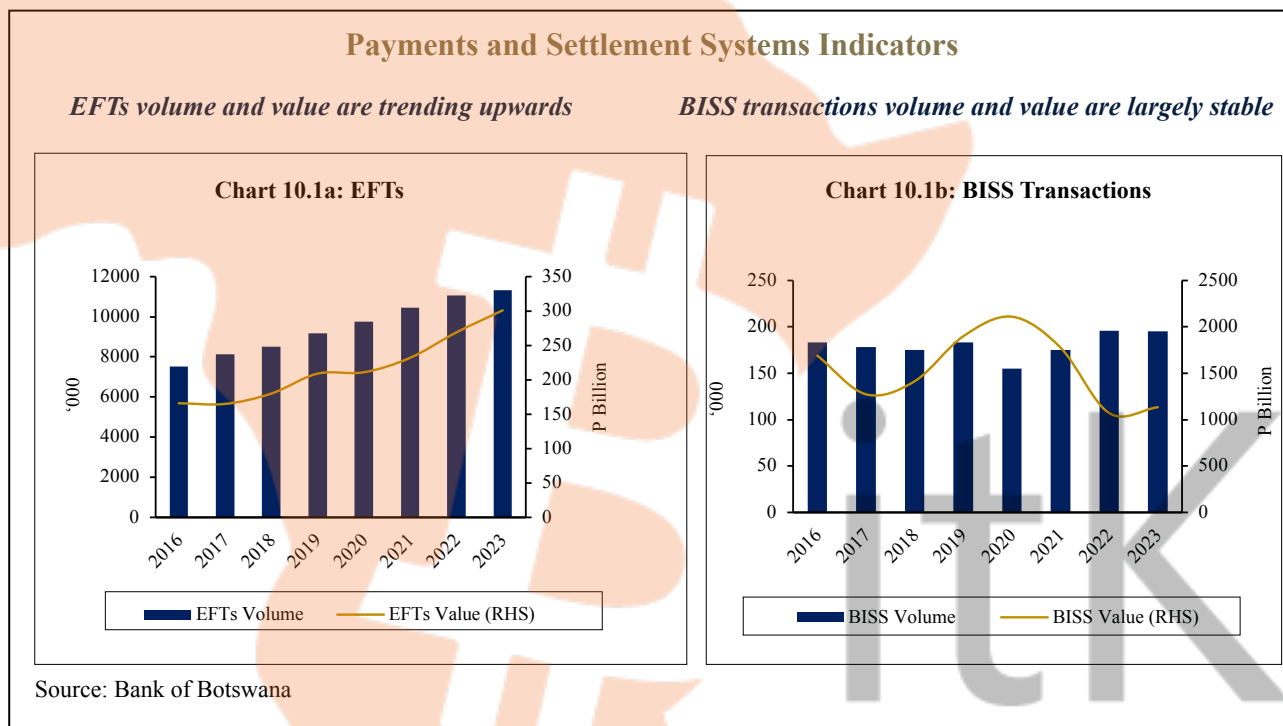
*Increased digitalisation presents cyber risks*

10.1 Clearing systems are largely resilient in handling large volumes of transactions without any major disruption. Meanwhile, the value and volume of electronic fund transfers (EFTs) continue to increase (Chart 10.1a).

10.2 As at 31 March 2024, the Bank had licensed twenty-five electronic payment service (EPS) providers under the EPS Regulations of 2019. The emergence, growth and promotion of electronic payments is well aligned with, among

others, digitalisation and financial inclusion initiatives, forming part of the economic transformation and policy reform programme for Botswana. It is, however, recognised that digital and electronic payments methods also entail risks that need to be identified, measured, mitigated and controlled.

10.3 Generally, FMIs consisting of payment systems, central securities depository, and securities settlement systems, remain stable and resilient, thus strengthening and preserving domestic financial stability.



## **Box 3: Digitalisation and Artificial Intelligence in Central Banking - Navigating a Transformative Landscape**

### **Introduction**

Central banks worldwide are rapidly embracing digitalisation and artificial intelligence (AI), ushering in a new era for the financial landscape. This technological revolution offers immense potential but also presents unique challenges that require careful navigation.

AI-powered tools are transforming how central banks analyse data, enabling the extraction of valuable insights from vast and complex datasets. For instance, the Bank of England uses AI to enhance its oversight of credit risks and improve bank supervision. This enhanced analytical capability facilitates more informed and data-driven decision-making, leading to more effective policies and strategies. However, the increasing reliance on AI systems necessitates a focus on cybersecurity and data privacy. Central banks must prioritise implementing robust measures to safeguard their operations and maintain public trust, as these systems can expose financial systems to cyber attacks and data breaches that could compromise sensitive financial information.

### **Strengthening Risk Management and Financial Stability**

AI plays a crucial role in strengthening risk management and safeguarding financial stability. AI frameworks are being developed to identify and mitigate potential risks to the financial system. By leveraging AI's predictive capabilities, central banks can detect emerging vulnerabilities and take pre-emptive measures to maintain stability. This proactive approach to risk management is essential in today's dynamic and interconnected financial world. Furthermore, AI-driven models are enhancing the accuracy and timeliness of economic forecasts, enabling central banks to make more informed policy decisions and proactively address economic challenges.

### **Nowcasting GDP with Machine Learning**

Central banks, including the Bank, are using innovative applications of AI in economic forecasting, such as machine learning techniques to nowcast GDP. This approach allows for the estimation of current economic activity even when official GDP data is not yet released. By utilising machine learning algorithms and incorporating high-frequency indicators like currency values, stock prices, and Google search trends, central banks can gain timely and accurate understanding of economic performance, enabling agile and effective policy responses.

### **Ethical Considerations and Explainable AI**

While the benefits of AI are undeniable, central banks must also navigate the associated ethical considerations. AI models can inherit biases from their training data, potentially leading to discriminatory outcomes, which could mislead policy. Ensuring fairness and transparency in AI systems is paramount to avoid perpetuating or amplifying existing societal biases. Additionally, the inherent complexity of some AI models can make their decision-making processes opaque. Central banks must strive for explainable AI, enabling clear interpretations of AI-driven decisions and fostering trust among stakeholders.

### **Digitalisation and Financial Inclusion in Botswana**

Focus on ethical and transparent AI is particularly important in the context of financial inclusion, a key policy consideration for many central banks, including the Bank. Botswana aims to increase financial inclusion from the prevailing 82 percent by leveraging digital technologies to reach

underserved populations, particularly in rural areas. Mobile money has witnessed significant growth in Botswana, with providers like Orange Money, Botswana Telecommunication Corporations' Smega and Mascom's MyZaka offering a wide range of services. At the same time commercial banks have intensified their digitisation efforts and adoption of ewallets to support further financial inclusion. The Bank is actively involved in promoting digitalisation, including modernising the national payment system. In the advent of AI, it is critical that the Bank and other stakeholders are aligned with the market to inculcate safe and efficient fintech innovation for deeper financial inclusion.

#### **Addressing the Challenges of AI-Driven Automation**

The increasing use of AI in the financial sector raises concerns about job displacement and the potential exacerbation of income inequality. As AI-driven automation becomes more prevalent, central banks need to consider policies that support workers affected by technological change and promote skills development for the future of work.

#### **Conclusion**

The integration of digitalisation and AI in central banking is a transformative journey that presents both opportunities and challenges. By embracing these technologies responsibly and proactively addressing the associated risks, central banks can enhance their effectiveness, strengthen financial stability, and contribute to a more prosperous and equitable economy. The evolving landscape of AI in central banking demands continuous learning, adaptation, and international collaboration to ensure that these technologies are used for the benefit of all.



## 11. REGULATORY DEVELOPMENTS

### *FSB roadmap to enhance cross-border payments*

11.1 The FSB, in a letter to G20 Finance Ministers and Central Bank Governors, dated 18 October 2024, acknowledged progress in enhancing cross-border payments but emphasised the need for greater effort to achieve the G20's targets by 2027. The FSB stressed the importance of addressing frictions, managing risks, and advancing a global regulatory framework for crypto assets, while also monitoring tokenisation. The FSB expressed its commitment to achieving the G20's targets and underscored the importance of collaboration.

11.2 The letter is in line with the G20 Roadmap for Enhancing Cross-Border Payments which aims to tackle the challenges of high cost, slow speed, limited access, and lack of transparency in cross-border payments. The roadmap outlines a plan with 15 priority actions organised into three themes: improving payment system interoperability and extension, developing consistent legal, regulatory, and supervisory frameworks, and facilitating cross-border data exchange and message standards. The roadmap prioritises practical projects that will help achieve the G20 targets for cheaper, faster, more transparent, and more accessible cross-border payments, including remittances.

### *Regulatory and supervisory environment conducive for financial stability*

11.3 The regulatory and supervisory environment of the financial system remains robust and continues to be modernised and strengthened to elevate its effectiveness in controlling risk transmission and reducing vulnerabilities. Between 2022 and 2023, the financial sector conducted a holistic review of the regulatory and supervisory environment, resulting in amendments, enactments and re-enactments of several anchor laws<sup>11</sup>. In an effort to ensure effective implementation of these various laws,

MoF is currently working on a number of regulations including the Banking Regulations, 2023; Banking (Deposit-Taking Institutions) Regulations, 2023; Banking (Appeals Tribunal) Regulations, 2023; Collective Investment Undertaking (Licensing, Recognition and Exemption) Regulations, 2023; and Electronic Payment Services (Amendment) Regulations, 2023. Several of these regulations are expected to be published by the first quarter of 2025. There are also several bills in 2024 that are currently before parliament, including the Non-Bank Lenders Bill, 2024, Medical Aid Funds Bill, 2024, and Health Insurance Bill, 2024, which are expected to help strengthen regulatory supervision and compliance, as well as protect both service providers and their clientele.

### *Credit bureaus regularised under the new Act*

11.4 The Bank has thus far, issued two credit bureau licences to TransUnion credit bureau in June 2024 and Cred Base credit bureau in August 2024. The security vetting for Credit Reference Bureau directors is ongoing, while an application by Micro Finance Credit Bureau is under consideration. These efforts are part of the implementation of the Credit Information Act, 2021, and the associated Credit Information Regulations, 2022, to facilitate availability and accessibility of credit information for better credit decisions.

### *Policy Protection Regulations being developed*

11.5 To further enhance domestic financial safety nets, NBFIRA is developing legislation (Policy Protection Regulations, 2024) that would enable establishment of a fund to ensure protection of policyholders in the event of insolvency and failure of insurers to renew their licences, which may lead to non-honouring of claims. A technical working group has been set and tasked with benchmarking the design of the fund, as well as engaging stakeholders for input in the development of the Regulations. The fund is expected to elevate investors' confidence in the insurance industry.

<sup>11</sup> The list includes Bank of Botswana Act, amended and effected on 14 February 2023; Banking Act, re-enacted and published as an Act of Parliament on 26 May 2023; Electronic Payment Service (Amendment) Regulations, 2023; Financial Intelligence Act, 2022; and the Virtual Assets Act, 2022.



*Botswana has completed a mock Mutual Evaluation in preparation for FATF's ME in 2027*

- 11.6 On financial integrity issues, Botswana continues to be steadfast in its commitment to improving policies, legal frameworks and action plans on Anti-Money Laundering/Countering the Financing of Terrorism/Counter Proliferation Financing (AML/CFT/CPF) matters. Related to that, the country completed a money laundering and terrorist financing national risk assessment in December 2023 in preparation for the Eastern and Southern Africa Anti-Money Laundering Group (ESAAMLG) Mutual Evaluation scheduled for 2027. FIA also conducted a mock Mutual Evaluation exercise with the assistance of the United Nations Office on Drugs and Crime (UNODC) on 17 – 28 June 2024 to gauge the country's preparedness to the upcoming ESAAMLG Mutual Evaluation. The report and action items of the exercise would be given to respective authorities for implementation. Ultimately, outcome of these projects will support efforts to close gaps in the AML/CFT/CPF regime and inform appropriate and timely interventions before the Mutual Evaluation in 2027.

*The drafting of the 2025-2030 Financial Sector Development Strategy (FSDS) is ongoing*

- 11.7 Following the completion of the Financial Stability Assessment Programme (FSAP) and Financial Stability Assessment (FSSA) for Botswana in 2023 by the IMF and the World Bank, BoB, NBFIRA, BSEL and MoF formed a technical committee of experts to address the FSAP and FSSA recommendations and draft the FSDS for Botswana. The development of the FSDS, which started in June 2024, is planned to be done in three phases and is to be completed in March 2025. Phase 1 identified gaps and key areas to be covered in the Strategy pertaining to financial inclusion, financial stability and the state of long-term finance in Botswana. Phase 2, during quarter 4 of 2024, will entail in-country missions by the World Bank. The FSDS report will be finalised during Phase 3, in the first quarter of 2025. The five-year FSDS will be a roadmap which will guide in developing and maintaining a well functioning

financial sector, mobilise and allocate savings, supply the credit needs of economic agents, and allocate resources more efficiently with reasonable intermediation costs.

*Deposit Insurance Fund increased*

- 11.8 Efforts to enhance financial safety nets continue with the DISB increasing the Deposit Insurance Fund to P55.5 million as at 30 September 2024, following the approval of the Premium Contributions Policy by the Deposit Insurance Committee on 23 May 2024. Furthermore, DISB has applied to the International Association of Deposit Insurers (IADI) to transit from associate membership to full membership. The IADI full membership confers on the DISB the right to effectively leverage on services and technical assistance of IADI aimed at buttressing its work and achieving its strategic objectives such as maintaining and administering the insurance fund, including risk analysis and surveillance.

*Judges trained on AML/CFT/CPF issues*

- 11.9 The University of Botswana Institute for Combating Illicit Financial Flows hosted a colloquium for the Judges in July 2024 to enhance the Judicial Officers' understanding of the AML/CFT/CPF issues. The colloquium was attended by 20 Judges from Botswana.

## 12. CONCLUSION AND OUTLOOK

12.1 The domestic financial system remains resilient and robust, thus continues to be safe and sound as well as unconstrained in providing and growing the range of financial services to support the economy. The enduring stability of the financial system is supported by a conducive macroeconomic environment, characterised by the prevailing accommodative monetary conditions and positive economic growth prospects, despite sovereign vulnerabilities (i.e., reduced fiscal and external buffers) due to the current depressed global economic environment combined with long-term structural trends.

12.2 Global vulnerabilities remain and relate to challenges resulting from the subdued global growth, persistent geopolitical risks, as well as the high and rising sovereign debt burden. Furthermore, the increasing interconnectedness of the volatile crypto assets market with the rest of the financial system, presents a challenge of potential systemic risks. Domestically, risks emanating from crypto assets are minimal but ongoing misconduct in the segment presents regulatory concerns. Regulators therefore need to develop effective oversight frameworks for the sector.

12.3 Climate-related financial risks are also on the rise owing to climate change and its potential to affect the safety and soundness of individual financial institutions and the broader financial systems. As a result, there is increased pressure on institutions and countries to transition to green economies, which may be disruptive if not well managed. Similarly, improving data quality would greatly enhance identification and assessment of climate related risks and the costs of greening the financial system. Domestic developments along with global dialogue on climate change will continue to drive efforts on developing, strengthening and implementing the domestic macroprudential policy framework.

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## APPENDIX

**Table A1: Risk Assessment Matrix**

| Risk Type and Underlying Vulnerabilities  | Risk Mitigation Measures  | Residual Risk |
|---|---|---------------|
| <p><b>Weak global economic growth</b><br/>Subdued prospects for global economic activity due to the adverse impact of climate change, geopolitical tensions, increased geo-economic fragmentation and rising public and corporate debts levels.</p>   | <ul style="list-style-type: none"> <li>Increased local production through import substitution (vegetable import ban), Economic Recovery and Transformation Plan, Industry Support Facility, Transitional National Development Plan and other Government policies to boost economic growth.</li> </ul>   | Moderate      |
| <p><b>Possible rise in inflation</b><br/>A possible rise in inflation that could lead to entrenched inflation expectations. Upward risks to inflation outlook include possible rise in international commodity prices; persistent supply and logistical constraints; and a rise in administered prices.</p>                 | <ul style="list-style-type: none"> <li>Inflation is forecast to remain within the objective range in the medium term.</li> <li>Central bank communication through MPC press briefings and statements and publication of the Monetary Policy Report (MPR) provides clarity on the drivers of inflation and expected outcomes, therefore, helps to stabilise expectations.</li> </ul>   | Low           |
| <p><b>Tightening financial conditions</b><br/>Potential tightening of policy rates to control inflation expectations.</p>   | <ul style="list-style-type: none"> <li>The MPC, on 22 August 2024, reduced the MoPR by 25 basis points from 2.15 percent to 1.9 percent as inflation was projected to remain low into the medium term.</li> <li>Central bank communication through MPC press briefings and statements and publication of the MPR provides clarity on the drivers of inflation and expected outcomes, therefore, helps to stabilise expectations.</li> </ul>             | Low           |
| <p><b>Credit risk from households</b><br/>Dominance of total credit by households poses a risk of potential income loss to the financial sector in the event of a sudden erosion of the households' capacity to service loans and therefore, has a bearing on monetary policy and financial stability.</p>                  | <ul style="list-style-type: none"> <li>The credit-to-GDP gap is negative, indicating low risks of overheating of the economy and that there is scope for further expansion of credit to support economic growth.</li> <li>Good lending standards, generally.</li> <li>Household credit is dominated by government employees (high job security), scheme loans and deduction from source hence, low NPLs.</li> <li>Households are net savers.</li> </ul> | Low           |
| <p><b>Climate risk</b><br/>Unfavourable climate conditions and global warming (i.e., droughts, cyclones, earthquakes etc.)</p>  | <ul style="list-style-type: none"> <li>Global (e.g., the Paris protocol on reducing carbon footprint) and domestic climate adaptation and mitigation have and continue to be developed.</li> <li>Promotion of greening of the economy.</li> </ul>   | Low           |
| <p><b>Funding risk</b><br/>High dependence on retail deposits from NBFIs and Non-Financial Corporates<br/>Households' pensions placement with pension funds and asset management companies are the main source of deposits</p>  | <ul style="list-style-type: none"> <li>Well capitalised and highly liquid banking sector.</li> <li>Close monitoring of NBFIs.</li> <li>Strong accounting and audit standards.</li> <li>Regulatory checks and balances.</li> <li>The new 50/50 rule in pension investment abroad is likely to increase wholesale deposits.</li> </ul>  | Low           |
| <p><b>Contagion risk</b><br/>The banking sector is highly integrated with NBFIs. NFCs and the real estate sector are integrated with banking sector. NFCs and NBFIs are the main sources of bank deposits.<br/>Concentration risk: the insurance and pension sectors, and micro lenders are dominated by few companies.</p> | <ul style="list-style-type: none"> <li>Well-regulated and supervised banking sector and NBFIs.</li> <li>Well-capitalised and liquid banks and NBFIs.</li> <li>The D-SIBs and D-SIFIs (for the insurance sector) frameworks ensure closer monitoring and supervision of systemically important entities.</li> </ul>  | Moderate      |
| <p><b>Cybersecurity threat</b><br/>Rapid digitisation of payments and operations and processes (especially in the NBFIs sector).</p>  | <ul style="list-style-type: none"> <li>High Information and Communication Technology security implementation.</li> <li>High observance of CDD.</li> <li>Increased compliance to Financial Action Task Force protocols limits the potential negative impact on financial system.</li> </ul>  | Low           |
| <p><b>Risks from crypto assets</b><br/>Increased trade in crypto assets, predominantly in Emerging Markets and Developing Economies.</p>  | <ul style="list-style-type: none"> <li>The crypto-asset market in Botswana is small.</li> <li>The Virtual Assets Act, 2022 provides for the regulation of the virtual assets market.</li> </ul>   | Low           |



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