MAY 2024
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FINANCIAL STABILITY REPORT

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Foreword

The Organic Law of the Banco de Moçambique (BM) provides that one of the central bank's purposes is to ensure the supervision of credit institutions and financial companies. Credit institutions and financial companies are supervised using a combination of microprudential and macroprudential instruments that work in order to ensure the stability of the financial system.

Financial stability ensures the maintenance of a robust, efficient, and resilient financial system against shocks and financial imbalances. In this context, it contributes to the preservation of the confidence of economic agents and contributes to the mitigation of systemic risk, as well as promotes safe savings and access to credit in a sustainable way.

The BM implements macroprudential policy using instruments to prevent and mitigate excessive credit growth, excessive leverage, and shortage of liquidity in the financial system. The use of macroprudential policy instruments contributes to ensuring favorable developments in the economic and financial indicators of the banking sector, particularly capital adequacy, and liquidity ratios, as well as to mitigating excessive risks to systemically important institutions.

The BM's banking resolution authority function was reinforced by Law No. 20/2020, of December 31. This legal framework strengthens the mechanisms and instruments for the resolution of institutions at risk of non-viability or insolvency, ensuring timely intervention and their orderly recovery or wind up, minimizing costs and negative effects on the financial system.

The Financial Stability Report (FSR) is a communication tool of the macroprudential policy adopted by the BM. The FSR includes the drivers of the international and domestic conjuncture, as well as the assessment of systemic risk, which contributes to influencing macroprudential policy decisions.

The Governor
Rogério Lucas Zandamela

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Acronyms and abbreviations

ATM	Automated Teller Machine
BCI	Banco Comercial e de Investimentos
BIM	Banco Internacional de Moçambique
BM	Banco de Moçambique
bp	Basis points
BVM	Mozambique Stock Exchange
D-SIBs	Domestic Systemically Important Banks
DTI	Debt-to-income
FSI	Financial soundness indicators
FATF	Financial Action Task Force
GDP	Gross Domestic Product
G-SIB	Global Systemically Important Banks
HHI	Herfindahl-Hirschman Index
IMF	International Monetary Fund
ISSM	Mozambique Insurance Supervision Institute
LTV	Loan-to-value
MEF	Ministry of Economy and Finance
MIMO	Policy rate
MVM	Securities Market
NPL	Non-performing loan
POS	Points of sale
pp	Percentage points
ROA	Return on assets
ROE	Return on equity
SADC	Southern Africa Development Community
T-Bill	Treasury Bills
T-Bond	Treasury Bonds
USA	United States of America

Executive summary

2023 was marked by the increased volatility of global financial markets. This scenario arises from restrictive policies in advanced economies, coupled with the bankruptcy of banks in the United States of America (USA) and the risk of bankruptcy of a global systemically important bank (G-SIB) in Switzerland, exacerbated by the recession in China's real estate market.

In addition, the period of monetary tightening in advanced economies boosted capital outflows and increased domestic indebtedness in emerging market economies. This scenario is explained by the significant increase in yields on long-term sovereign bonds in advanced economies, which have become more attractive compared to government bonds in emerging markets, enticing investors to invest their resources in assets in these economies rather than emerging economies.

Macrofinancial stability in 2023 was also affected by the increase in cyberattacks. These attacks essentially impacted the security of central banks' payment systems and provided for increased losses at several international financial institutions.

Domestically, the adoption of a restrictive monetary policy, similar to the international macro-financial environment, contributed to the consolidation of macroeconomic and macrofinancial stability. As a result, inflation stood at 5.3% in 2023, following 10.3% in 2022, and the exchange rate remained stable.

In turn, the financial system grew by 4.6% in 2023 and the key financial indicators show that it remains stable, solid and well capitalized.

Regarding the banking sector, the indicators remained stable, profitable and adequate. The capital adequacy ratio stood at 25.67% in 2023, above the regulatory minimum of 12.00%, which accommodates the capital buffers of domestic systemically important banks (D-SIBs). On the other hand, banking sector liquidity remained at satisfactory levels, standing at 47.42%, above the regulatory minimum of 25%.

Despite the favorable performance of capitalization and liquidity indicators, asset quality, as measured by the non-performing loans (NPL) ratio, remains above the internationally recommended maximum of 5.0%, standing at 8.24% in 2023, and the ratio of NPL coverage by specific provisions stood at 66.04%.

Banking sector assets grew by 7.27%, largely financed by the increase in deposits and resources of other credit institutions. However, credit to the economy contracted by 2.45% in 2023.

The net profits of the banking sector grew by 8.12% in 2023, following 16.13% in 2022, with D-SIBs accounting for 73.92% of the total results of the sector.

The level of banking sector concentration, as measured by the shares of assets, deposits and credit, continues to trend downwards, thus signaling greater market competitiveness.

In turn, the insurance sector and investors in the Securities Market (MVM) increased investments in government debt securities, instead of banking sector investments, thereby increasing their exposure to sovereign risk.

The systemic risk index remained moderate at 32.29%, despite the reduction of this indicator by 7.29 percentage points (pp), driven by the slowdown in macroeconomic and market risks.

Despite the moderate systemic risk, vulnerabilities prevail, both domestic and external, highlighting the military instability in northern Mozambique, the country's placement on the Financial Action Task Force (FATF) grey list and the occurrence of extreme weather events.

In order to contain risks and mitigate vulnerabilities in the domestic financial system, the BM kept unchanged all macroprudential policy instruments. Thus, the capital buffers for D-SIBs and Quasi D-SIBs remained at a minimum of 2.0% and 1.0%, respectively.

In addition, the macroprudential lending requirements imposed on credit institutions, such as the loan-to-value (LTV) and the debt-to-income (DTI) ratios, remained with a maximum limit of 100%.

I. INTERNATIONAL FINANCIAL SYSTEM

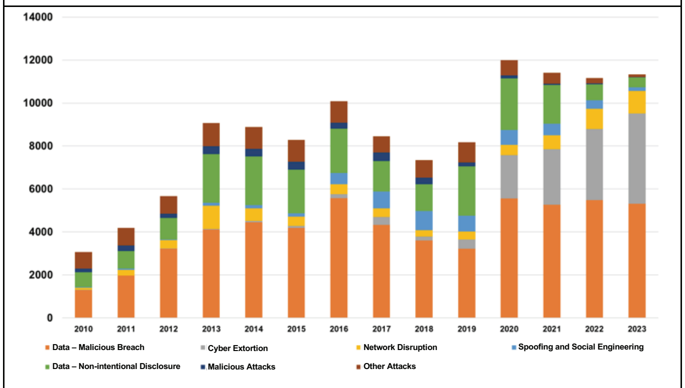
2023 was marked by greater volatility of global financial markets, compared to 2022, driven by restrictive policies, coupled with the bankruptcy of banks in the US, namely the Silicon Valley Bank and the Signature Bank, and bankruptcy risk of Credit Suisse[1], in Switzerland in March 2023. The volatility of international financial markets was exacerbated by geopolitical conflicts, particularly the Middle East tensions and the Ukraine-Russia war (chart 1).

Chart 1. US share price volatility -VIX index

Source: Bloomberg, 2023

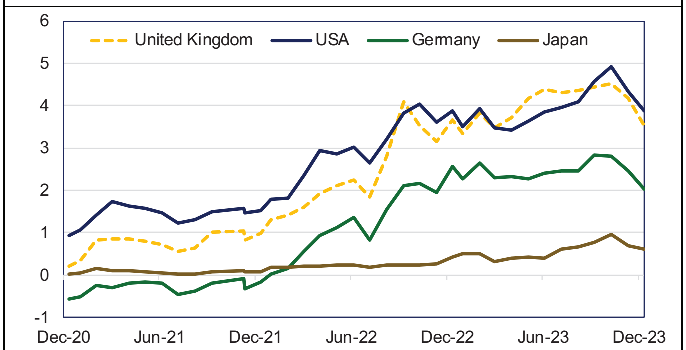
In addition, the period of monetary tightening in advanced economies provided for capital outflows and increased domestic indebtedness in emerging market economies. Macrofinancial stability in 2023 was also influenced by the increased risk of cyberattacks, which affected the security of payment systems and resulted in increased losses in several international financial institutions (charts 2 and 3).

Chart 2. Cyberattack developments 2010-2023



Source: IMF, 2024

Chart 3. Government bond yields (%) - advanced economies



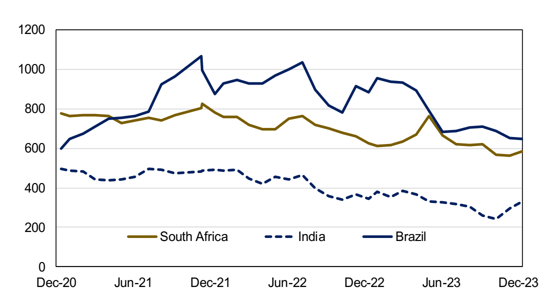
Source: Bloomberg, 2023

The significant increase in yields on long-term sovereign bonds in advanced economies has made them more attractive compared to government bonds in emerging markets, enticing investors to invest in assets in those economies rather than in emerging economies.

[1] This institution has been merged into the UBS Group AG.

Capital outflows from emerging markets to advanced economies have contributed to increased volatility in international financial markets, thereby exacerbating capital shortages in emerging markets (chart 4).

Chart 4. Spread on securities – emerging market economies

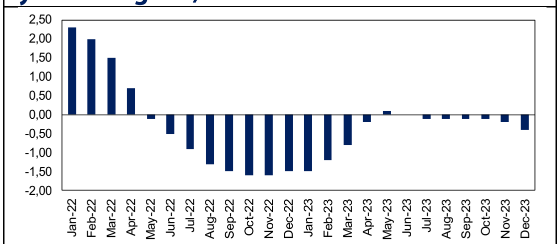


Source: Bloomberg, 2023

Consequently, debt service has increased in emerging economies, due to tighter financial conditions. This exacerbated sovereign and fiscal risks, with a potential impact on the banking sector.

Additionally, the recession in China's real estate market, driven by the continued decline in real estate prices, has contributed to the increase in global financial vulnerabilities (chart 5).

Chart 5. Property prices - China (year-on-year change %)



Source: *Trading Economics*, 2023

Despite the less favorable international context, in 2023, the results of the stress test exercises of advanced economies and emerging markets show that large banks remain resilient to shocks to their balance sheets.

In fact, these markets have satisfactory capital buffers capable of withstanding potential negative impacts, that could arise from disruptions or worsening of macro-financial conditions.

In Southern African Development Community (SADC) countries, banking sectors showed adequate capitalization levels, indicating an ability to meet their commitments and resilience to adverse balance sheet shocks.

The comparative analysis of capitalization levels in the region showed that the capital adequacy ratio of the national banking sector is the highest (chart 6).

Over the same period, return on equity (ROE) ratios in the region were satisfactory. The level of profitability of the Mozambican banking sector was higher than the average of the SADC countries (chart 7).

However, overall, the NPL ratios of SADC countries stood above the standard benchmark, which raised concerns as to the credit quality of these environments, increasing challenges of credit risk control and management, with the Mozambican banking sector bearing the highest level of default in the region (chart 8).

FSI – SADC countries

Chart 6. Capital adequacy ratio

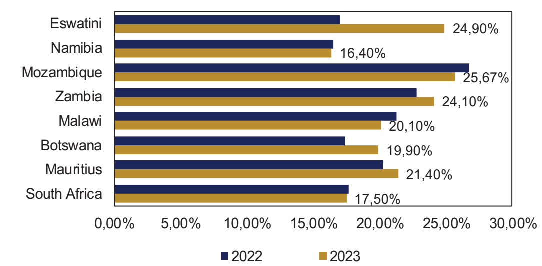


Chart 7. Return on Equity

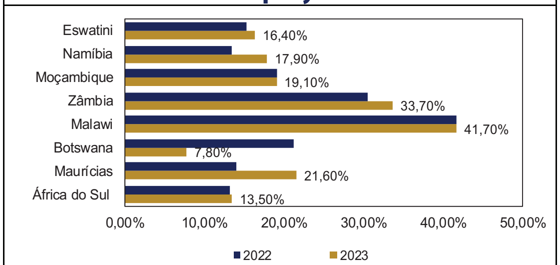
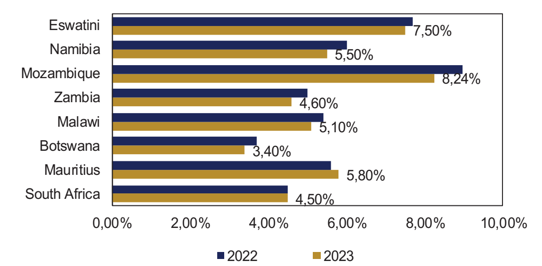


Chart 8. Non-performing loan (NPL) ratio



Source: IMF, 2023

Box 1. Cyber risk worldwide

The number of cyberattacks has nearly doubled since the end of the last decade and became quite prominent even before the COVID-19 pandemic. However, cyberattacks, extortion or malicious data breaches have become much more frequent since 2020.

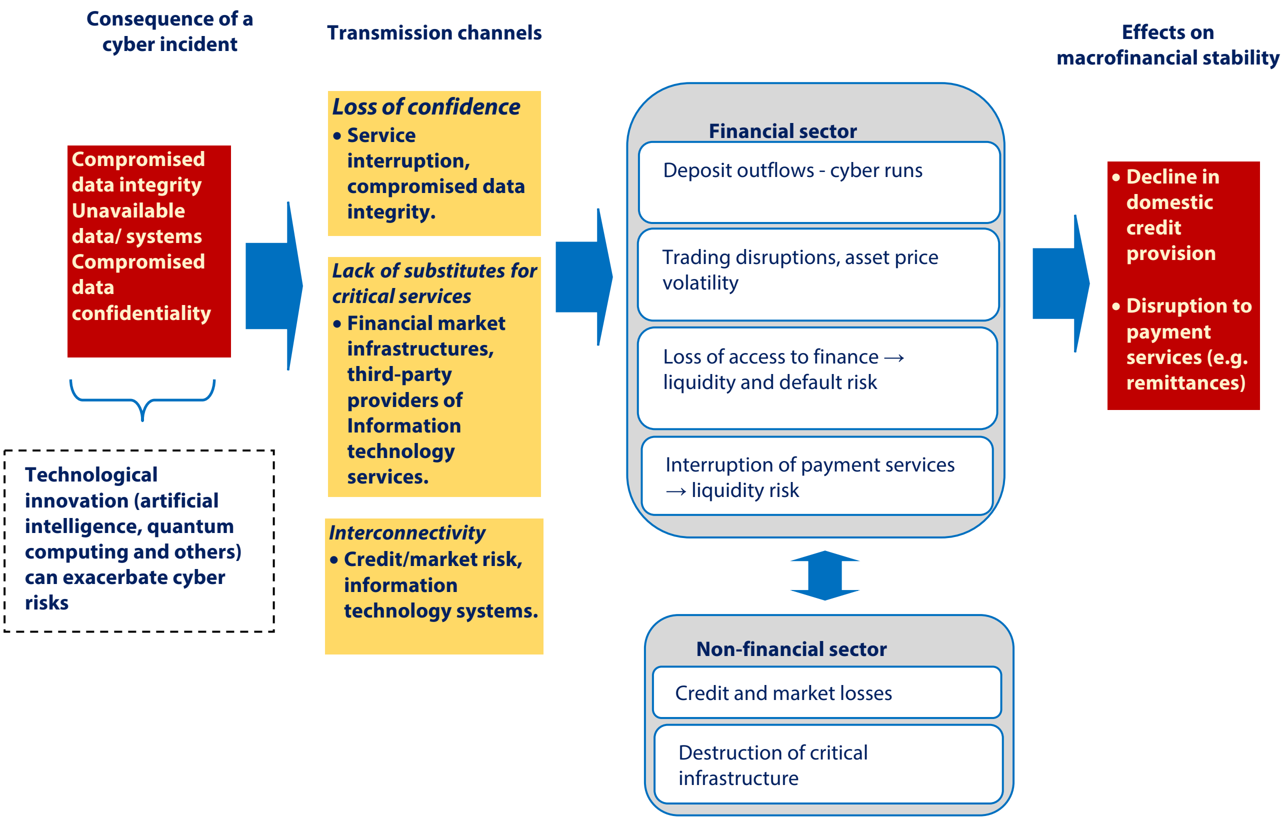
Many factors contribute to the increase in cyber incidents and risks, namely rapidly growing digital connectivity accelerated by the COVID-19 pandemic and increased reliance on technology and financial innovation.

Most direct losses reported in cyberattacks are small, but the risk of extreme events is real, and the possibility of significant losses has increased substantially.

The financial system is heavily exposed to cyber risks, accounting for nearly a fifth of all recorded incidents, with the banking sector, including central banks, being the most frequent and preferred target, followed by insurers and asset managers, which is why this issue is a concern for a growing number of risk managers of these institutions.

Cyber incidents in financial institutions are likely to threaten macro-financial stability through three main channels, namely: loss of confidence, lack of substitutes for critical services and interconnectivity (figure 1).

Figure 1. Cybersecurity and macrofinancial stability: transmission channels



Source: IMF, 2024

Although cyberattacks so far have not been systemic, serious incidents at major financial institutions, including central banks, can pose a significant threat to macro-financial stability through:

- loss of confidence;
- disruption of critical services;
- National Switch shutdown, which makes it impossible for all local banks to honor interbank transactions in their respective countries due to technological and financial interconnectivity.

The cyber resilience of the financial system should be strengthened through the development of an appropriate cybersecurity strategy, regulation, adequate cybersecurity oversight frameworks, empowered human capital, and national and international information sharing agreements.

II. DOMESTIC FINANCIAL SYSTEM

The financial system grew by 4.6% in 2023, relatively above the level recorded in 2022 (3.1%), and the key financial indicators show that it remains stable, solid and well capitalized, despite internal and external shocks.

2.1. Banking sector

The banking sector remained profitable and stable with adequate levels of capitalization, profitability, and liquidity for the reporting period. Meanwhile, as measured by the NPL ratio, despite the downward trend in recent years, asset quality stood at 8.24%, above the standard benchmark of 5%.

Net profits amounted to 30.8 billion meticais, a growth of 8.12% compared to 2022, of which 22.8 billion meticais (73.92%) were obtained by the three domestic credit institutions classified as D-SIBs, namely BCI, Millennium bim and Standard Bank.

2.1.1. Banking sector concentration

In the period under review, D-SIBs jointly accounted for 60.78%, 66.16%, and 54.37% of assets, deposits, and credit, respectively, compared to 64.45%, 68.01%, and 54.23% in the same period of 2022 (table 1).

On the other hand, the Herfindahl-Hirschman Index (HHI)[2] for assets and deposits decreased, as opposed to credit, which increased, compared to 2022, with market concentration remaining moderate, despite banking concentration trending downwards over the last five years (table 1).

Table 1. Banking sector concentration - Herfindahl-Hirschman Index

	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
IHH - Assets	**1.636**	**1.572**	**1.501**	**1.533**	**1.410**
Three largest banks (D-SIBs)	66,60%	65,33%	63,16%	64,45%	60,78%
Six largest banks	84,65%	83,10%	82,33%	81,38%	79,46%
Ten largest banks	90,28%	89,91%	91,05%	89,77%	88,55%
IHH - Deposits	**1.835**	**1.778**	**1.703**	**1.707**	**1.657**
Three largest banks (D-SIBs)	70,69%	69,94%	67,63%	68,01%	66,16%
Six largest banks	88,66%	87,14%	86,81%	85,96%	85,77%
Ten largest banks	93,72%	93,21%	94,62%	92,14%	93,50%
IHH - Credits	**1.594**	**1.486**	**1.388**	**1.294**	**1.320**
Three largest banks (D-SIBs)	60,43%	58,75%	56,80%	54,23%	54,37%
Six largest banks	83,32%	81,84%	79,45%	78,23%	76,93%
Ten largest banks	92,17%	91,12%	90,05%	89,81%	89,68%

Source: BM, 2023

[2] Method of assessing the degree of concentration in a market, widely used by national and international entities to measure competitiveness between institutions. It is calculated by summing the squares of the market shares of the institutions operating in a market, ranging from 0 to 10,000. Values between 0 and 1000 indicate that the level of market concentration is low; between 1000 and 1800 points is moderate, and above 1800 points is considered high.

2.1.2. Balance sheet structure

2.1.2.1. Assets

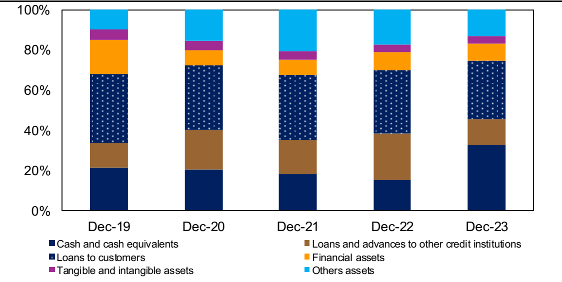
The total assets of the banking sector stood at 918.5 billion meticais, a growth of 7.27%, financed in part by the increase in deposits and resources of other institutions, by 2.22% and 152.58%, respectively, compared to the previous year.

The ratio of total banking sector assets to Gross Domestic Product (GDP) stood at 66.97% in the period under review, a decline of 6.45 pp compared to 2022.

The option for investments in assets with high liquidity, profitability and lower risk, consisting of cash and cash equivalents, investments in credit institutions and financial assets, continued to drive asset composition, accounting for 53.92% of total assets in 2023, following 47.09% in 2022.

Net credit impairment, one of the most important variables in asset composition, accounting for 29.10% of total assets on the balance sheet of the banking sector in 2023, compared to 31.59% in the same period of the previous year (chart 9).

Chart 9. Assets



Source: BM, 2023

Cash and cash equivalents amounted to 300.2 billion meticais in December 2023, an increase of 129.01% compared to the same period in 2022.

This change is mainly due to the growth of current deposits of credit institutions by 256.98% at the BM, in the context of compliance with the minimum reserves requirement.

In December 2023, investments in credit institutions decreased by 79.4 billion meticais (40.10%) to 198.0 billion meticais compared to the same period in 2022, mainly due to the reduction in investments in the BM and deposits at credit institutions at home and abroad, by 39.62% and 49.05%, respectively (chart 9).

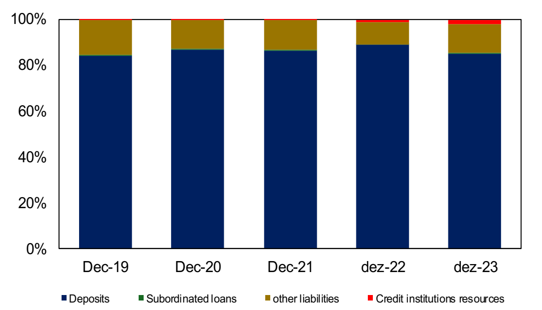
Moreover, regarding the period in question, "Other assets" accounted for 16.98%, following 21.31% in December 2022.

2.1.2.2. Liabilities

The total liabilities of the banking sector stood at 747.2 billion meticais, a growth of 7.0% compared to 2022.

This positive change was mainly driven by the increase in the resources of credit institutions and deposits by 152.58% and 2.22%, respectively. Deposits make up the largest source of resources raised by credit institutions and account for 85.10% of total liabilities (chart 10).

Chart 10. Liabilities



Source: BM, 2023

485.9 billion meticais of total deposits were denominated in national currency (76.41%) and 150.0 billion meticais (23.59%) in foreign currency. The share of deposits denominated in foreign currency over total deposits decreased by 1.61 pp, which contributes to the reduced dollarization of the economy.

In the period under review, the resources of credit institutions over liabilities accounted for 2.10%, against 0.89% in 2022.

2.1.3. Financial Soundness Indicators

2.1.3.1. Capital adequacy

In December 2023, capital adequacy indicators remained at historically high levels. In fact, the aggregate capital adequacy ratio stood at 25.67%, equivalent to 13.67 pp above the regulatory minimum[3], following 26.77% in 2022.

The 1.10 pp decrease in this ratio, compared to the same period of the previous year, was particularly due to the growth in risk-weighted assets (15.24%), which exceeded the increase in eligible own funds (9.81%).

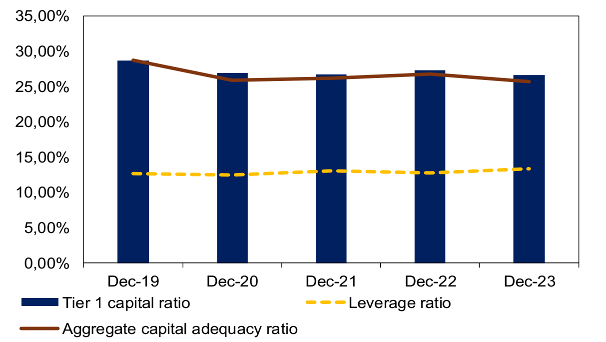
Similarly, in the same period, the Tier 1 capital adequacy ratio[4] declined by 72 basis points (bp), ending the year at 26.65%, above the regulatory minimum of 10%.

[3] The regulatory minimum is 12%.

[4] Tier I over risk-weighted assets.

The leverage ratio, which provides information on the extent to which assets are financed by equity, stood at 13.32% in the period concerned, compared to 12.80% in 2022 (chart 11).

Chart 11. Capital adequacy



Source: BM, 2023

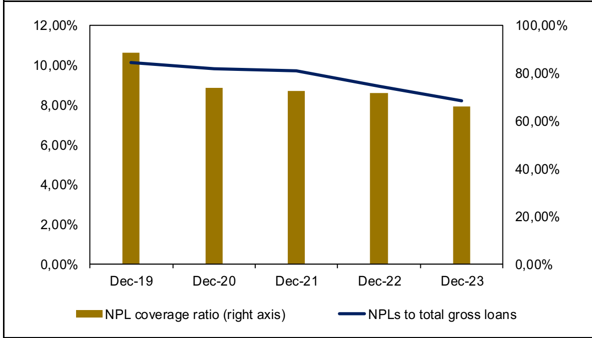
2.1.3.2. Asset quality

The NPL ratio continued to trend downwards, reaching 8.24% in 2023, following 8.97% in the same period of 2022.

It should be noted that the NPL ratio has been showing consistent signs of decline in recent years, due to improved credit management processes (chart 12). Despite this trend, this indicator remains above the standard benchmark of 5.0%.

However, the ratio of NPL coverage by specific provisions decreased by 5.80 pp year-on-year to 66.04% in December 2023 (chart 12).

Chart 12. Credit quality – December 2023

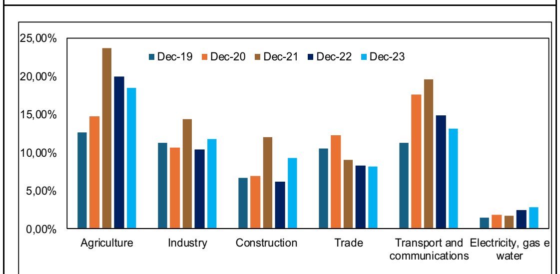


Source: BM, 2023

At the sectoral level, the NPL ratios of the agriculture (18.52%), transport and communications (13.12%), and trade (8.10%) sectors show high figures, partly influenced by the impact of climate shocks on these economic activity sectors.

It should be noted that in the last 5 years the agriculture sector has maintained high non-performing loan ratios compared to other economic activity sectors, followed by transport and communications (chart 13).

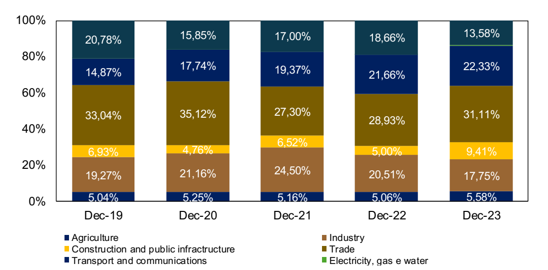
Chart 13. NPL ratio by economic activity sectors



Source: BM, 2023

With regard to NPL weight distribution by economic activity sectors, in December 2023, trade accounted for the highest concentration with 31.11%, followed by transport and communications with 22.33%, and industry with 17.75% (chart 14).

Chart 14. NPL weight distribution by economic activity sectors



Source: BM, 2023

Despite the highest sectoral default rate, agriculture's share of the total NPL weight remains small at 5.58% in 2023.

This dynamic is associated with the limited resources that are channeled into this sector of economic activity, strengthened by the sector's high exposure to climate risk (chart 14).

2.1.3.3. Profitability

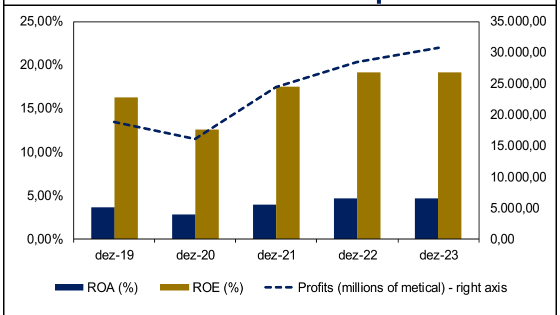
In the period concerned, the net result reached 30.8 billion meticais, underpinning an increase of 8.12% compared to the same period of the previous year.

This change is mainly justified by the increase in other operating income by approximately 6.0 billion meticais and the net interest income by 2.3 billion meticais.

The main profitability indicators of the banking sector, namely Return on Assets (ROA), Return on Equity (ROE), cost-to-income ratio and net interest income ratio showed favorable developments in the period under review.

Furthermore, the ROA and ROE levels remained unchanged at 4.66% and 19.11%, as in 2022, respectively (chart 15).

Chart 15. ROA and ROE developments



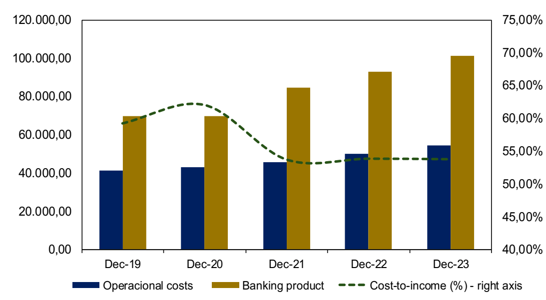
Source: BM, 2023

The weight of net interest income in gross banking income stood at 63.87% in 2023, following 68.50% in the same period of the previous year, reflecting the reduction of financial intermediation in the generation of profits.

The cost-to-income ratio stood at 53.79%, a slight decrease of 8 bp, compared to 2022. This marginal increase in banking efficiency is partly due to the increase in banking income by 9.30%, despite a 9.10% increase in operating expenses.

It is noteworthy that the increase in operating expenses was driven by the increase in staff costs by 9.17% and administrative costs by 8.57% (chart 16).

Chart 16. Cost-to-income ratio developments



Source: BM, 2023

2.1.3.4. Liquidity and Funding

In the period under review, liquidity indicators decreased compared to the same period of the previous year, but underpin the continuity of financing operations in the banking sector (table 2).

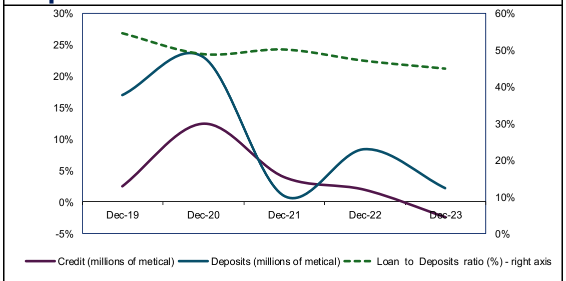
Table 2. Key liquidity indicators (%)

Description	Dec-17	Dec-19	Dec-21	Dec-22	Dec-23
Net assets/Total liabilities ratio (%)	53,5%	57,14%	67,98%	69,49%	49,62%
Net assets/Total assets ratio (%)	37,0%	39,32%	47,89%	50,50%	34,36%
Short-term liquidity coverage ratio (%)	51,3%	56,13%	68,30%	69,79%	47,42%
Loans to deposits ratio (%)	64,7%	54,74%	50,22%	47,09%	44,90%

Source: BM, 2023

The loan-to-deposit ratio decreased from 47.06% in 2022 to 44.90% in 2023, reflecting the 2.45% negative change in credit (chart 17).

Chart 17. Credit, deposits, and loan-to-deposit ratio



Source: BM, 2023

Deposits continued to account for the main and most stable source of financing in the banking sector, with a weight of 96.37% of total resources, followed by resources from credit institutions with 2.38%; the remaining sources of financing maintained a residual weight (table 3).

Table 3. Banking sector financing sources structure

	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
Deposits	97,24%	98,56%	98,28%	98,76%	96,37%
Demand	60,60%	61,74%	59,97%	59,62%	57,30%
Term	35,73%	35,68%	37,32%	37,37%	38,87%
Ohers	0,93%	1,16%	1,01%	1,80%	0,20%
Central Banks Resources	0,04%	0,07%	0,14%	0,10%	0,74%
Subordinated Loans	0,36%	0,14%	0,20%	0,15%	0,51%
Credit institutions resources	2,36%	1,22%	1,38%	0,99%	2,38%

Source: BM, 2023

2.1.4. Domestic Systemically Important Banks (D-SIBs)[5]

In the period in question, the bank classified three D-SIBs, namely BCI, Millennium bim and Standard Bank,

[5] According to Notice No. 10/GBM/2018, they are those whose financial imbalance or insolvency could cause significant disruption to the overall financial system and economic activity.

whose financial soundness indicators performed positively (table 4).

Table 4. Financial soundness indicators selected for D-SIBs

	Dec-21		Dec-22		Dec-23	
Description	D-SIBs	SB	D-SIBs	SB	D-SIBs	SB
Capital adequacy						
Aggregate capital adequacy ratio	28,18%	26,72%	29,46%	27,37%	27,39%	25,67%
Tier I/risk-weighted assets ratio	28,95%	26,71%	30,40%	27,37%	28,32%	26,65%
Asset quality						
NPL ratio	4,72%	9,74%	3,96%	8,97%	7,17%	8,24%
NPL coverage ratio	63,67%	72,63%	62,60%	71,84%	49,09%	66,04%
Profitability						
ROA	3,92%	3,93%	4,06%	4,69%	4,16%	4,66%
ROE	25,04%	17,52%	26,31%	19,13%	23,35%	19,11%
Liquity and funding						
Short-term liquidity coverage ratio	72,53%	68,30%	75,80%	69,79%	50,63%	47,42%
Net assets to total deposits ratio	73,46%	67,98%	75,90%	50,49%	53,60%	49,62%
Loan-to-deposit ratio	42,25%	50,22%	35,62%	47,09%	38,19%	44,90%

Source: BM, 2023

2.1.4.1. Capital Adequacy

D-SIBs have met the minimum regulatory requirements for key capital adequacy ratios. Consequently, the aggregate capital adequacy ratio stood at 27.39% and the Tier 1 capital adequacy ratio at 28.32%.

2.1.4.2. Asset Quality

NPL recorded a year-on-year decrease of 3.94 pp to 7.17% in 2023. In the same period, the NPL coverage ratio decreased from 62.60% to 49.09%.

2.1.4.3. Profitability

Net profits of D-SIBs stood at 22.7 billion meticais, a growth of 4.51% compared to 2022.

D-SIBs recorded a satisfactory level of profitability, with ROA at 4.16% and ROE at 23.35%, in 2023. However, the dynamics of these indicators did not affect the assessment of profitability risk in the banking system.

2.1.4.4. Liquidity and Funding

D-SIB deposits amounted to 420.7 billion meticais, a negative year-on-year change of 0.56%, against 423.0 billion meticais in 2022. 59.0% of this total accounts for demand deposits.

Net assets of D-SIBs decreased by 31.01% compared to the same period of the previous year, offset by the negligible growth in short-term liabilities of 3.30%.

In this context, the short-term liquidity coverage ratio increased from 75.80% in 2022 to 53.60% in 2023. The ratio of net assets to total deposits in the period concerned stood at 50.63%, compared to 75.90% in 2022 (table 4).

Box 2. Classification of D-SIBs

Background

Notice No. 10/GBM/2018, of October 22 provides that the BM shall annually identify, evaluate and classify domestic systemically important banks (D-SIBs) operating in the Mozambican financial system for macroprudential purposes, in order to restrain the negative effects that disruptions in these types of banks may trigger in the economy, as well as ensure their normal functioning.

The difference between a standard domestic credit institution and a systemically important domestic credit institution (D-SIB) is that, should the latter collapse, it has the potential to give rise to significant disruption in the banking sector, the financial system and economic activity in general.

Methodology

D-SIBs are determined based on an average score of three fundamental pillars, with different weights (table 5):

Table 5. D-SIBs calculation methodology:

Categories	Indicators	Weight
Size (50%)	Total balance sheet assets (A)	25%/3
	Number of branches (B)	25%/3
	Number of ATM (C)	25%/3
	Number of POS (D)	25%/3
Interconnectedness (25%)	Resources (assets) of the intrafinancial system (E)	25%/3
	System liabilities (F)	25%/3
	Outstanding securities (G)	25%/3
Substitutability (25%)	Payment activity (H)	25%

Source: BM

It should be noted that the resources and liabilities of the intrafinancial system are liquidity swaps in the interbank money market (mostly unsecured lending between banks), where the operations of the lending credit institutions are resources (assets) and the borrowing credit institutions are liabilities.

Payment activity concerns all debit and credit transactions of the account of each credit institution opened at the BM carried out in December of each year.

$$\boldsymbol{Pontuação_{ICi}} = \left(\left[25\%\left(\frac{A}{\sum_i^n A}\right) + \frac{25\%}{3}\left(\frac{B_i}{\sum_i^n B} + \frac{C_i}{\sum_i^n C} + \frac{D_i}{\sum_i^n D}\right)\right] + \cdots + \frac{25\%}{3}\left(\frac{E_i}{\sum_i^n E} + \frac{F_i}{\sum_i^n F} + \frac{G_i}{\sum_i^n G}\right) + 25\%\left(\frac{H}{\sum_i^n H}\right)\right) * 1000$$

Classification

After calculating each indicator and its weight by the respective factor, the scoreslay down that:

- Those that exceed 130 points are designated as D-SIBs;
- Those in the range between 65 and 130 points are designated as quasi-D-SIBs; and
- Those below 65 points are considered of no systemic importance.

In 2023, according to the score in the table below, BCI, Millennium bim and Standard Bank were classified as D-SIBs, and ABSA and Moza Banco as quasi-D-SIBs.

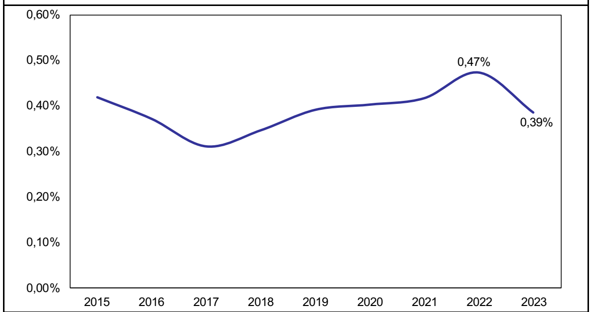
Classification of domestic institutions by systemic importance:

Institution	Score	Additional Capital
BCI	220	Tier 1 (+2.0% Capital level 1 and 2)
Millennium BIM	187	Tier 1 (+2.0% Capital level 1 and 2)
Standard Bank (STB)	182	Tier 1 (+2.0% Capital level 1 and 2)
ABSA	99	Tier 0 (+1% Capital level 1 and 2)
Moza Banco	86	Tier 0 (+1% Capital level 1 and 2)

2.2. Insurance sector

In 2023, the weight of the insurance sector on GDP stood at 0.39%, continuing the trend of stability over recent years, peaking at 0.47% in 2022 (chart 18).

Chart 18. Global insurance sector output as % of GDP



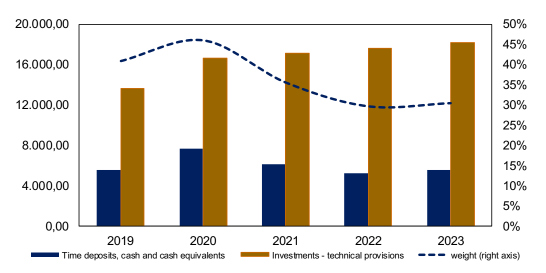
Source: BM and ISSM, 2023

The insurance sector plays an important role in protecting the banking sector, as it provides a way of managing vulnerabilities and risks that threaten the stability of the domestic financial system.

On the other hand, this sector is linked to the financial market through its investment, fundraising, and debt issuance activities.

Preliminary data indicate that, in 2023, the percentage of total deposits of the insurance sector in total investments stood at approximately 30%, near 2022 figures (chart 19).

Chart 19. Deposits vs. investments (millions of meticais)

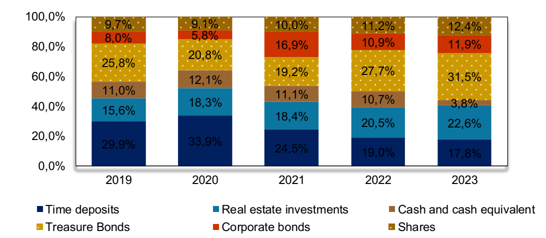


Source: BM and ISSM, 2023

With regard to investments representing technical provisions, time deposits are trending downwards.

At the same time, there is evidence of increased insurance sector investments in public debt securities to the detriment of investments in the banking sector, thus increasing its exposure to sovereign risk and with a potential impact on systemic risk dynamics (chart 20).

Chart 20. Investments representing technical provisions



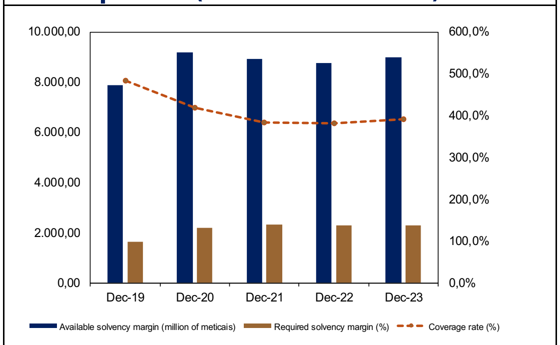
Source: BM and ISSM, 2023

The performance of the insurance sector has been strongly driven by the macroeconomic environment developments and the growth of the national banking sector.

In 2023, preliminary data indicate that the insurance sector continued to present a comfortable solvency margin to absorb unexpected losses and thereby fulfill its obligations to its customers.

Overall, the solvency margin[6] coverage rate available in the insurance sector has remained stable, with the required solvency margin representing approximately ¼ of the solvency margin available in recent years, standing well above the required benchmark (chart 21).

Chart 21. Insurance sector solvency margin developments (millions of meticais)



Source: ISSM, 2023

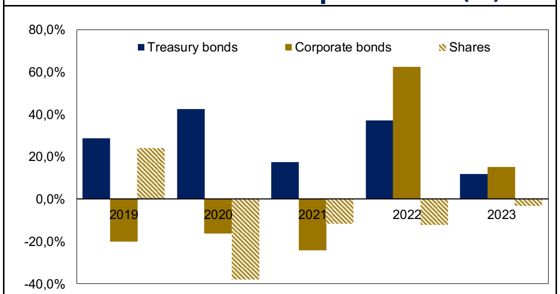
2.3. Securities market

In 2023, the market capitalization of the Mozambique Stock Exchange (BVM), which is the main indicator of the Mozambican securities market, stood at 183.8 billion meticais, equivalent to 13.40% of nominal GDP[7], down from 13.98% in 2022.

In order to light of foster the capital market, the BVM's legal status has been changed[8] from a public institution to a public limited liability company, to strengthen its performance.

In the period under review, treasury bonds (T-Bonds) registered, year-on-year, an increase by 11.87% (16.89 billion meticais) and corporate bonds by 15.17% (0.71 billion meticais), offset by a 3.40% decrease (0.58 billion meticais) in shares (chart 22).

Chart 22. Stock market capitalization (%)



Source: BVM, 2023

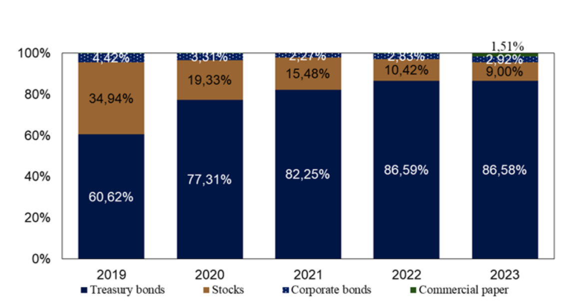
In 2023, T-Bonds made up about 86.58% of the market capitalization, following 86.59% in 2022, which persistently signals government financing using this market segment (chart 23).

[6] A set of resources consisting of unencumbered equity available to insurance companies to address uncertainties inherent in the risk of the insurance business.

[7] The nominal GDP value of 2023 is a projection, extracted from the Economic and Social Plan and State Budget 2024 (PESOE).

[8] Through Decree No. 18/2023, of April 28

Chart 23. Weight of the various MVM segments on stock market capitalization

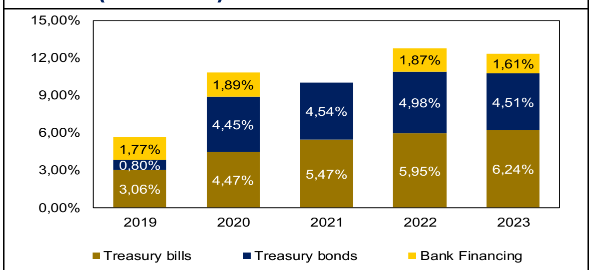


Source: BVM, 2023

This behavior increases the sovereign risk to which the holders of these securities are exposed, particularly members of the banking and insurance sectors, and equally influences the overall systemic risk and financial stability.

This scenario is further exacerbated by the increase in domestic public debt from the use of T-Bills and direct financing from domestic banks (chart 24), thus increasing their exposure to sovereign risk and, consequently, impacting systemic risk.

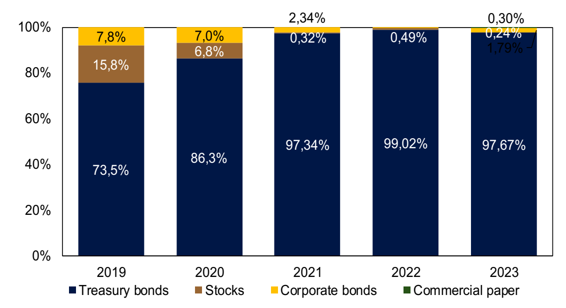
Chart 24. Domestic public debt in the banking sector (% of GDP)



Source: MEF and BM, 2023

Regarding the volume of transactions by category of securities listed on the stock exchange, T-Bonds again registered the highest weight, in 2023, with 97.67% of the total, followed by corporate bonds with 1.79% and commercial paper with 0.30% (chart 25).

Chart 25. Transaction volume weight by securities category



Source: BVM, 2023

On the other hand, the low trading volume in the corporate equity and bond segments suggests that the use of the capital market as an alternative to private corporate financing remains underutilized.

This can also be confirmed by the number of instruments listed by each MVM segment, where corporate bonds and equities have a relatively small share compared to T-Bonds[9] (table 6).

[9] In 2023, they represented approximately 51.19% of the total issues listed in the MVM.

Table 6. BVM-listed issuance

Listed Issuances	2019	2020	2021	2022	2023
Treasury bonds	31	35	33	39	43
Corporate bonds	15	13	9	13	16
Shares	10	11	12	12	16
Commercial paper	1	3	0	1	9
Total	**56**	**59**	**54**	**64**	**85**

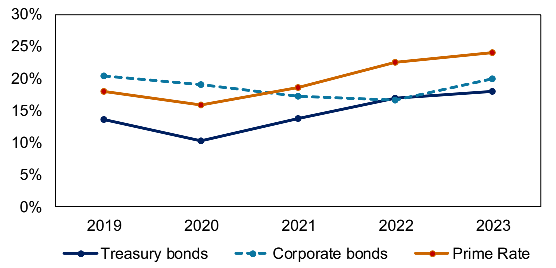
Source: BVM, 2023

This dynamic does not support the expansion of financing alternatives for companies, which could, possibly, in some periods, contribute to reduce their funding costs.

Therefore, as outlined in chart 26, corporate bond interest rates have been more attractive compared to the prime rate, at least for the past 3 years.

It should be noted that, even though the MVM is mostly dominated by T-Bonds, 4 new companies entered the stock market segment in 2023, bringing the number of companies listed in this segment to 16 from 12 in 2022.

Chart 26. Interest rates on BVM-listed bonds and the prime rate



Source: BVM, 2023

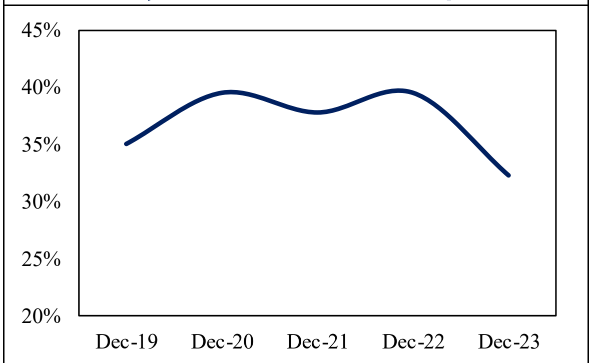
III. SYSTEMIC RISK ASSESSMENT IN MOZAMBIQUE

In December 2023, the systemic risk index[10] stood at 32.29%, an improvement of 7,29 pp compared to the same period in 2022 (39.58%), remaining moderate.

The reduction in this indicator essentially reflects the easing of macroeconomic and market risks.

Charts 27 and 28 underscore the developments in the systemic risk index and the sub-indexes of the categories that compose it for the period under review.

Chart 27. Systemic risk index developments



Source: BM, 2023

Chart 28. Developments in systemic risk categories (%)

Source: BM, 2023

3.1. Macroeconomic risk

Macroeconomic risk slowed from high in 2022 to moderate in 2023, underpinned by the following factors:

- Real GDP growth by 5.0% in 2023, following 4.2% in 2022; and

- Annual inflation deceleration, which decreased from 10.29% in 2022 to 5.30% in 2023.

  The variables in this risk category, particularly inflation, were favored by the milder impact of geopolitical conflicts on the logistics chain and global market goods prices.

[10] This index ranges from 0 to 100%. As it draws closer to 0%, systemic risk is reduced and vice versa.

3.2. Sovereign risk

In 2023, sovereign risk remained severe. The ongoing severe sovereign risk reflects the dynamics of the ratio of credit to the Government to total credit and the ratio of public debt to GDP, which remained high.

3.3. Profitability and solvency risk

Profitability and solvency risk remained low in 2023.

Profitability indicators indicate a positive performance of the banking sector during the year. Both ROA and ROE remained satisfactory.

Regarding solvency, the sector remained robust despite the slight reduction in the Tier 1 capital adequacy ratio.

3.4. Credit risk

Credit risk remained low.

This prevailing level of credit risk reflects the consistent reduction in the NPL ratio, coupled with the contraction of credit to the economy.

It should be noted that the credit to economy to GDP gap remained in negative territory, also explained by the contraction in lending to the economy.

3.5. Liquidity risk

Liquidity risk remained low for the period under review.

The main variables of this risk category, namely, the ratio between loans and deposits and the liquidity coverage ratio, signaled the increase in liquidity during 2023, influenced by the financial intermediation slowdown dynamics in the same period.

3.6. Market risk

Market risk remained moderate in 2023, despite the stability of the Metical against other foreign currencies, especially the US dollar, due to the adoption of a restrictive monetary policy stance.

3.7. Systemic risk outlook

The outlook for systemic risk developments over the short and medium term is as follows:

Macroeconomic risk may see favorable developments, driven by the consolidation of the outlook for single-digit inflation over the medium term and optimistic economic growth projections.

However, uncertainties associated with geopolitical tensions and domestic military instability prevail, which may negatively influence key macroeconomic indicators and potentially impact systemic risk.

Sovereign risk is expected to remain severe, due to the pressure on domestic public indebtedness, which remains high, under a general elections` scenario , despite the notable fiscal consolidation efforts.

Profitability and solvency risk indicators point to the maintenance of low-risk in this category, since no major fluctuations are anticipated over the short and medium term.

Regarding **credit risk**, the BM considers that the conditions are in place to enter into a 24 to 36-month cycle of gradual MIMO policy rate cuts towards normalization, which may drive down the retail segment credit cost, via downward adjustment of the prime rate, with an impact on maintaining low credit risk.

Liquidity risk should remain low, based on the high market liquidity and the current stage of credit developments in the economy.

Market risk is expected to remain moderate. Notwithstanding a cycle of prime rate cuts is expected, underpinned by the stance adopted by the monetary authority, it is unlikely to be sufficient to provide for low market risk in 2024.

The overall outlook for developments in systemic risk components points to the systemic risk index remaining moderate.

IV. VULNERABILITIES OF THE MOZAMBICAN FINANCIAL SYSTEM

Risks to domestic financial stability benefited from the country's positive economic performance in 2023, having contributed to maintaining moderate systemic risk, against a domestic and international conjuncture marked by the prevalence of vulnerabilities.

The negotiations of the Mozambican government with the creditors of the undeclared debts that resulted in an agreement between the parties, initialed in October 2023, marked the year in question, with the potential to contribute to the improvement of international confidence in the country.

Nevertheless, the 2023 financial year was marked by vulnerabilities that affected negatively the domestic financial system, such as military instability in some districts of Cabo Delgado province, the level of public sector indebtedness, the country's placement on the FATF grey list and adverse climatic factors.

Military instability in some districts of Cabo Delgado province

The security conditions in this province remained a vulnerability that has been hindering the projects implemented in the region.

This instability has undermined the activities of economic agents in the region and raised uncertainties about the resumption of projects, in addition to limiting access to financial services.

In addition, the prevailing scenario has been conditioning financial inclusion and the ability of economic agents to honor their commitments in the banking sector.

Domestic public indebtedness

The pressure on public indebtedness continued in 2023, more centered on the internal component, as shown in table 7.

Table 7. Public debt stock in USD million

	2019	2020	2021	2022	2023
External debt	9 850.2	10 101.2	10 391.6	10 060.5	10 292.0
Domestic debt	2 515.0	2 834.6	3 563.4	4 406.6	4 910.5
Total debt	**12 365.2**	**12 935.7**	**13 955.1**	**14 467.1**	**15 202.4**

Source: MEF, 2023

The increase of current expenditure including the debt service, in the scenario were public investment continues to be limited by the government financial situation, is the main driver of domestic public indebtedness.

The increase in public indebtedness in the period concerned was mainly underpinned by the exposure to the financial system, highlighting the use of T-

Bonds and T-Bills in order to finance the cash deficit, with an impact on ongoing severe sovereign risk.

The outlook points to a prevailing fiscal pressure, due to debt service, both domestic and external, and expenses associated with the electoral process.

The country remains on the FATF grey list

Mozambique's continued presence on the FATF grey list for the period in question led to additional scrutiny of transactions with the country by banking correspondents.

This verification consists of the evaluation and processing of financial transactions, resulting in increased processing time and greater documentation requirements, implying higher monitoring costs for financial institutions.

In addition, reputational damage due to inclusion in the FATF grey list, associated with inefficiency in combating financial crimes, may hinder the inflow of relevant investments in the country, with negative effects on systemic risk.

Adverse climatic factors

In March 2023, the provinces of Zambézia, Nampula, Manica and Sofala were hit by Cyclone Freddy, which devastated production fields and infrastructure, materializing the physical risk for the business of financial institutions.

V. MACROPRUDENTIAL POLICY DECISIONS

In view of the domestic and international macro-financial conjuncture, the Financial Stability and Inclusion Committee decided to keep the macroprudential policy measures already in place to mitigate systemic risk, namely:

- D-SIB capital buffer set at a minimum of 2.0%;
- Quasi D-SIB capital buffer set at 1.0%;
- LTV ratio capped at 100.0% on credit granting to customers of credit institutions;
- DTI ratio capped at 100% on loans to customers by credit institutions.

The BM defines and implements macroprudential policy at the banking sector level, and regularly evaluates the financial system to identify current and future vulnerabilities and risks, against the environment of the most likely and adverse scenarios. This means it identifies, monitors, and assesses systemic risks.

The objective of macroprudential policy is to make the financial system resilient to risk absorption by ensuring adequate levels of financial intermediation and contributing to sustainable economic growth.

Box 3. Macroprudential solvency stress test

The macroprudential solvency stress test (STMaP) is one of the monitoring tools that macroprudential authorities use to assess the resilience of the banking sector to risks and disruptions affecting the financial system and the economy. In contrast to the microprudential stress test, used specifically for individual institutions, which is based on its own assumptions, the macroprudential approach considers the banking sector as a whole and all institutions involved in the process use homogeneous assumptions for their simulation exercises.

The STMaP exercise shall be carried out every year, and can, however, be carried out at intervals of 2 or more years, covering systemically important banks, ranging between three and five years.

Stress test exercises estimate potential losses and capital shortfalls in the banking sector arising from severe, hypothetical and plausible macroeconomic scenarios. Indeed, this exercise aims to assess the effects of specific risk factors that may adversely affect the solvency position of a financial institution.

The STMaP can be used for multiple purposes, particularly general financial system resilience tests, while incorporating the feedbackof the financial sector in simulations, and as an empirical tool for assessing the appropriate level of the countercyclical capital buffer (CCyB).

Table of the macroprudential stress test exercise of the domestic financial system

The macroprudential solvency stress test exercise consists of a set of macrofinancial models, namely a macro model and a banking model, supplemented with other satellite and simple rules models.

Model structure

The structure of the model presents:

- A macro dataset with time series on key macro variables, financial variables and vulnerability indicators;
- A set of financial information containing each bank's income statement, balance sheet and capital adequacy data;
- A macro model to evaluate the interaction of the main macro variables and construct coherent paths for the macro variables reported in the adverse scenario;
- Satellite models and simple rules for predicting variables that are not part of the macro model;
- Credit loss calculation tools for stressed financial years;
- A cross-check of the severity of the proposed scenario for the shock so as to maintain a coherent and plausible narrative;
- A banking model for projecting the income statement, balance sheet and capital adequacy of banks.

Calibration of a severe and plausible shock scenario

This step involves at least two procedures, namely:

- Selection of negative shocks to the economy based on the assessment of risks and vulnerabilities;
- Generating a consistent macro-scenario by introducing the negative shocks in the macro model; and
- Revisiting the key macroeconomic variables and assessing the severity of the stress scenario compared to the baseline scenario.

Macroprudential solvency stress test –Mozambique

Similar to the approaches of other central banks worldwide, the BM carried out a medium-term macroprudential solvency stress test exercise for the banking sector, imposing the following adverse and hypothetical shocks on the Mozambican economy:

(i) Domestic shocks: extreme weather events and escalating military instability.

(ii) External shocks: escalation of geopolitical conflicts, fragmentation of international trade and fuel supply cuts by OPEC+, leading to rising oil prices.

The results of the macroprudential solvency stress test show that in the most drastic scenario assumed, the financial system remains resilient and able to absorb all the shocks imposed in the model; and that the economy and the financial sector continue to operate normally and without any turmoil.

Glossary

Risk-weighted assets - the result of weighting each asset by a risk coefficient for calculating the capital adequacy ratio. Its determination complies with the requirements provided by Notice No. 09/GBM/2017, of June 5.

Cost-to-income – indicator calculated by the ratio of operating costs to banking income, which measures the efficiency of the organization.

Debt-to-income – ratio between the amount of the monthly installment calculated with all loans of the customer and their monthly income.

Equity – concept used in banking supervision as a fundamental reference for applying various ratios and various prudential standards.

Impairments –the book value in financial statements to account for expected asset-related losses. This amount shall be deducted from the value of the respective asset in order to correct its value, considering the risk of associated losses.

Global equity market volatility index – The S&P 500 Volatility Index, also known as the CBOE Volatility Index or VIX, is an indicator that measures the expected volatility of the US stock market. Higher values indicate an expectation of greater volatility and uncertainty, while lower values suggest greater confidence and stability.

Loan-to-value – the ratio between the total amount of credit agreements secured by a given asset and the purchase price or appraised value of the secured asset.

Non-performing loans – Corresponds to non-productive credits, that is, credits that do not generate positive flows and profitability to banks.

Banking income – set of operating income receivable by a financial institution, arising from commissions, interest, trading, interbank operations.

Regulatory provisions – amounts recognized to meet losses related to the activities of financial institutions. They shall be constituted in accordance with the prudential regime determined by the supervisory authorities.

Capital adequacy ratio – ratio of own funds to risk-weighted assets.

Risks – factors associated with uncertainties and, should they materialize, have an impact on capital and profit-or-loss.

Return on Assets – obtained by dividing net income by total assets, and measures the profit generated by each monetary unit of assets.

Return on Equity – obtained by dividing net income by equity.

TIER I - core capital (Level 1), which includes the best quality capital (share capital, reserves and retained earnings) and responds primarily to the liabilities incurred by the institution.

Vulnerabilities – set of characteristics that highlight the weaknesses of a particular system.

Banking Sector – set of credit institutions aimed at financial intermediation through deposit-taking and lending.

Financial system – set of financial institutions operating in Mozambique regulated by the Banco de Moçambique and the Mozambique Insurance Supervision Institute.

Annex 1. Key financial soundness indicators

Description	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
Capital adequacy					
Aggregate capital adequacy ratio	28.96%	26.06%	26.19%	26.96%	25.67%
Regulatory Tier I to risk-weighted assets ratio	28.89%	27.18%	26.71%	27.52%	26.65%
Leverage ratio	12.79%	12.46%	13.27%	12.97%	13.49%
Asset quality					
Non-performing loans to total gross loans	10.16%	9.83%	10.60%	8.97%	8.24%
Specific provisions to non-performing loans	88.65%	74.09%	72.63%	71.84%	66.04%
Profitability					
Return on assets	2.96%	2.20%	3.93%	4.69%	4.66%
Return on equity	24.93%	18.75%	25.15%	27.29%	19.11%
Interest margin to total income	67.55%	65.89%	64.08%	68.49%	63.87%
Noninterest expenses to total income (cost-to-income ratio)	59.25%	62.05%	53.75%	53.84%	53.79%
Liquidity and funding					
Liquid assets to total deposits	57.14%	58.89%	67.98%	69.49%	49.6%
Liquid assets to total assets	39.32%	42.53%	47.89%	50.50%	34.4%
Liquid assets to short-term liabilities	56.13%	58.54%	68.30%	69.79%	47.4%
Total loans to total deposits	54.74%	48.94%	50.22%	47.06%	44.9%