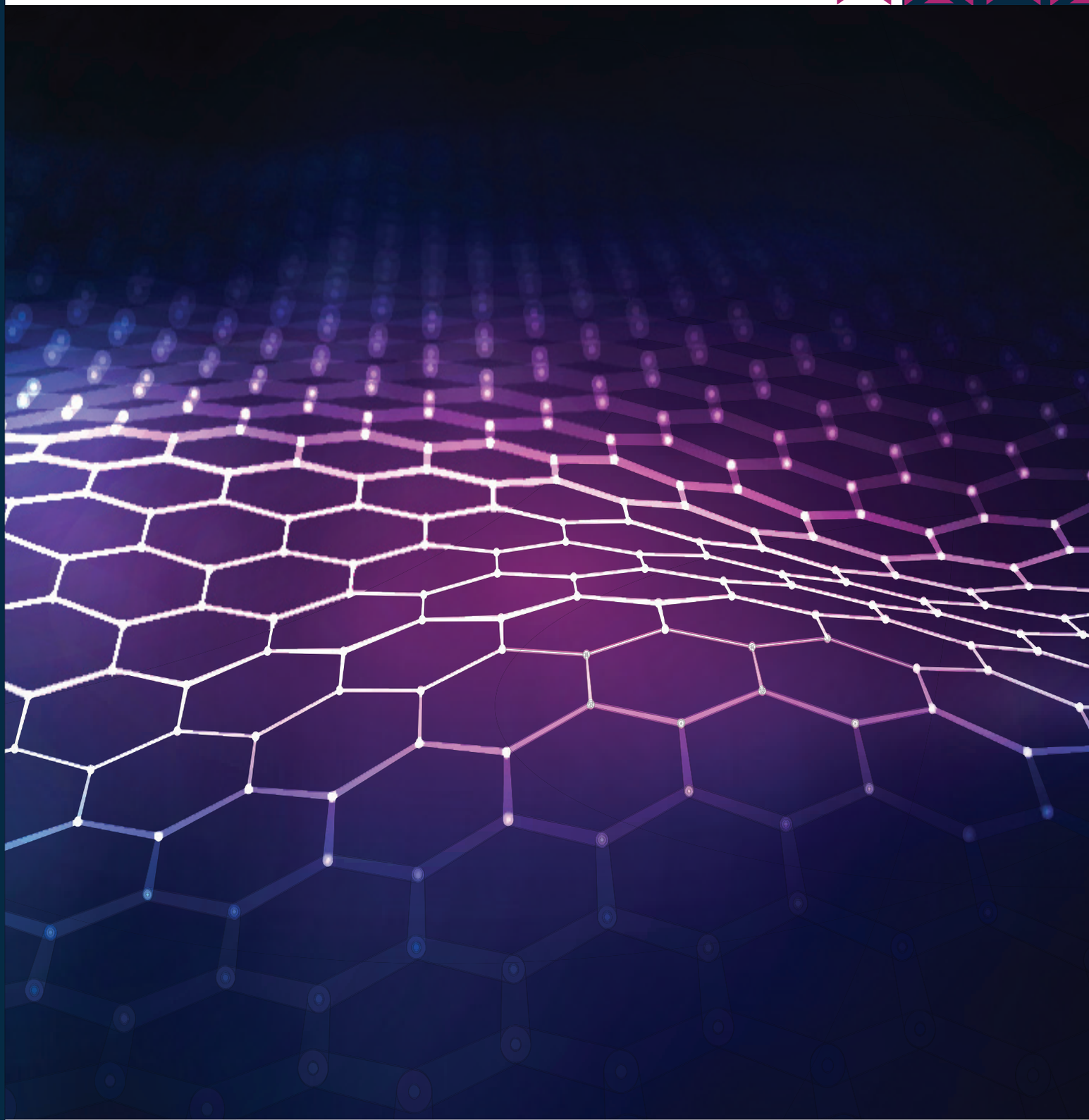
FINANCIAL STABILITY REVIEW

First edition
2024

SOUTH AFRICAN RESERVE BANK



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Background to the *Financial Stability Review*

The mandate for financial stability

The primary mandate of the South African Reserve Bank (SARB), as stated in the Constitution of the Republic of South Africa, is to achieve and maintain price stability in the interest of balanced and sustainable economic growth in South Africa. The Financial Sector Regulation Act 9 of 2017 (FSR Act) assigns a statutory mandate to the SARB **to protect and enhance financial stability in South Africa**. The SARB's primary and statutory mandates culminate in the SARB's vision of leading in serving the economic well-being of South Africans through maintaining price and financial stability.

Defining financial stability

Section 4 of the FSR Act defines 'financial stability' as meaning that:

- financial institutions and market infrastructures are capable of:
    - providing financial products and financial services; and
    - performing their functions and duties in terms of financial sector laws without interruption and despite changes in economic circumstances; and
- there is general confidence in the ability of financial institutions and market infrastructures to keep providing the said products and services and to keep performing their functions and duties.

Phrased differently, 'financial stability' refers to a financial system that is resilient to systemic risks and shocks and that can efficiently intermediate funds, even in adverse conditions, thereby bolstering confidence in the financial system and financial institutions. Financial stability is not an end in itself, but a precondition for balanced and sustainable economic growth.

Legal basis and purpose of the *Financial Stability Review*

Section 12 of the FSR Act requires the SARB to:

- monitor and review any risks to financial stability, including the nature and extent of those risks as well as the strengths and weaknesses of the financial system; and
- take steps to mitigate risks to financial stability, including advising the financial sector regulators and any other organ of state of the steps to take to mitigate those risks.

Section 13 of the FSR Act requires the SARB to assess the stability of the South African financial system at least every six months and to communicate its assessment in the *Financial Stability Review* (*FSR*). Among other things, the SARB is required to include the following in the *FSR*:

- its assessment of the stability of the financial system during the six-month review period;
- its identification and assessment of the risks to financial stability in at least the next 12 months;
- an overview of the steps taken by the SARB and financial sector regulators to identify and manage identified risks and vulnerabilities in the financial system; and
- an overview of the recommendations made by the SARB and the Financial Stability Oversight Committee (FSOC) during the period under review and progress made in implementing those recommendations.

The SARB assesses financial stability as part of its ongoing operations, and its Financial Stability Committee (FSC) reviews the financial stability conjuncture and outlook at four meetings per year. The *FSR* provides readers with the SARB's assessment of the stability of the South African financial system. The period under review is six months, from November 2023 to May 2024 for this edition, while the forecast period is until May 2025.

The *FSR* is tabled in Parliament and is targeted at the Members of Parliament, participants in the financial sector, international central bank peers, ratings agencies, international financial institutions, standard-setting bodies and academia. The *FSR* aims to stimulate debate on pertinent issues related to financial stability in South Africa.

Key terms used in the *FSR*

Drawing on the definitions used by the Financial Stability Board (2021), key terms in this document are defined as follows:

Financial sector regulators: As per the FSR Act, (i) the Prudential Authority; (ii) the Financial Sector Conduct Authority; (iii) the National Credit Regulator; and (iv) the Financial Intelligence Centre.

Financial stability: According to section 4 of the FSR Act, financial stability means (i) financial institutions and market infrastructures are capable of providing financial products and financial services and performing their functions and duties in terms of financial sector laws without interruption and despite changes in economic circumstances; and (ii) there is general confidence in the ability of financial institutions and market infrastructures to keep providing the said products and services and to keep performing their functions and duties. Phrased differently, 'financial stability' refers to a financial system that is resilient to systemic risks and shocks and that can efficiently intermediate funds, even in adverse conditions, thereby bolstering confidence in the financial system and financial institutions. Financial stability is not an end in itself, but a precondition for balanced and sustainable economic growth.

Financial system: The system of institutions and markets through which financial products, financial instruments and financial services are provided and traded and includes the operation of a market infrastructure and payment system.

Macroprudential instrument: Any policy instrument, regardless of the institutional authority with whom it vests, that is explicitly applied to (i) mitigate vulnerabilities in the financial system and reduce systemic risk; thereby (ii) improving the resilience of the financial system; in turn ultimately (iii) protecting and enhancing financial stability in South Africa.

Residual/net vulnerability: The remaining vulnerability after considering the identified mitigating factors and actions.

Resilience: The ability of a financial system to deal with shocks without leading to financial instability.

Risk: The possibility of an adverse or undesirable event or outcome materialising. Risks may have materialised already or could still materialise in future. The materialisation of risks can often not be prevented completely, but the impact of a risk materialising may be mitigated to a greater or lesser extent.

Risks and Vulnerabilities Matrix (RVM): The RVM shows the residual vulnerability of the financial system after considering existing mitigating factors and policy actions.

Shock: An event that may cause disruption to, or the partial failure of, the financial system.

Systemic event: According to the FSR Act, 'an event or circumstance, including one that occurs or arises outside [of] the Republic [of South Africa], that may reasonably be expected to have a substantial adverse effect on the financial system or on economic activity in the Republic, including an event or circumstance that leads to a loss of confidence that operators of, or participants in, payment systems, settlement systems or financial markets, or financial institutions, are able to continue to provide financial products or financial services, or services provided by a market infrastructure'.

Systemic risk: According to the Financial Markets Act 19 of 2012, 'the danger of a failure or disruption of the whole or significant part of [South Africa's] financial system'.

Transmission channels or mechanisms: The channels through which vulnerabilities may lead to the actual disruption of the financial system, should a shock occur.

Vulnerability: A property of the financial system that (i) reflects the existence or accumulation of imbalances; (ii) may increase the likelihood of a shock; or (iii) when impacted by a shock, may lead to systemic disruption.

Executive summary

The South African financial system has remained resilient since the release of the November 2023 *FSR* despite heightened uncertainty over domestic election outcomes as well as those in the more than 70 countries voting in 2024 across the globe.

Globally, risk factors that dominated financial markets include intensifying geopolitical tensions over the conflicts in the Middle East and Ukraine, sticky inflation that may require interest rates in advanced economies to remain high for longer than expected and persistent high levels of government debt. The difficulty in pricing in these highly uncertain and often contradicting factors led to heightened market volatility.

Domestically, the key risks to the financial stability outlook remain the weak fiscal position, the high levels of government debt, the concomitant increase in government's debt-service costs and the financial sector's high exposure to the sovereign. These factors contribute to increased interconnectedness and concentration in the domestic financial system, in turn inhibiting its capacity to absorb financial shocks and ultimately reducing financial system resilience.

Since the release of the November 2023 *FSR*, steady progress has been made to strengthen the domestic financial safety net by continuing with the implementation of the strengthened resolution framework and by introducing an explicit deposit insurance scheme. Significant efforts are also being made to mitigate the impact of a potential systemic event. Financial institutions are increasing their provisions in anticipation of increasing credit risk and, in aggregate, continue to exceed prudential requirements under close supervision of the Prudential Authority (PA).

One of the ways in which the SARB assesses the resilience of financial institutions is to test their ability to continue operating in severe adverse scenarios. In the past, stress tests had been limited to the banking sector. However, in 2023/24 the SARB conducted its first comprehensive stress test of the major insurance companies. The results of this inaugural insurance stress test are shared in this edition of the *FSR*. Overall, the results of the insurance stress test confirm that participating firms are adequately capitalised to withstand the severe but plausible adverse scenarios considered.

Overall, the South African financial system remains resilient as evidenced by financial institutions' ability to provide financial services uninterruptedly, and this resilience is expected to be sustained over the forecast period to May 2025.

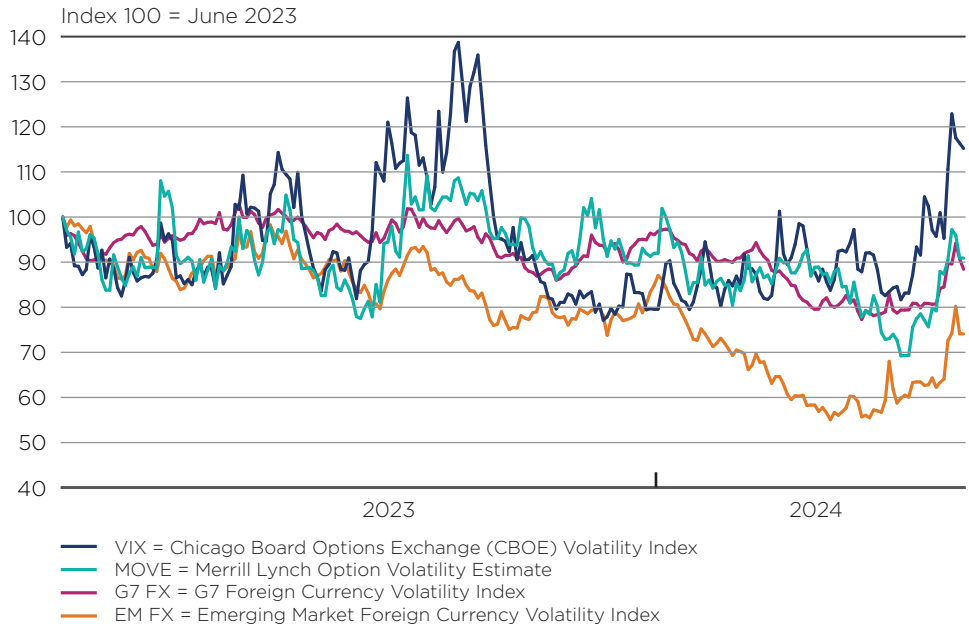
Financial stability developments

Global developments

Since the release of the November 2023 *FSR*, global financial markets have been buoyed by growing evidence that steady progress towards sustained disinflation is being made. Increasing asset prices and declining risk premiums have further contributed to positive investor sentiment. However, factors such as ongoing geopolitical tensions and the potential resulting impact on energy prices as well as uncertainty over election outcomes in the second half of the year could result in heightened market volatility.

More than half of the world's population across more than 70 countries will vote in national elections in 2024. The changes in policy that may accompany changes in governments, intensifying geopolitical tensions and uncertainty about the timing of policy rate cuts were a counterweight to prospects of a steady but divergent global economic recovery. The difficulty in pricing in these material but disparate factors has led to heightened market volatility in recent months (Figure 1).

Figure 1: Selected volatility measures



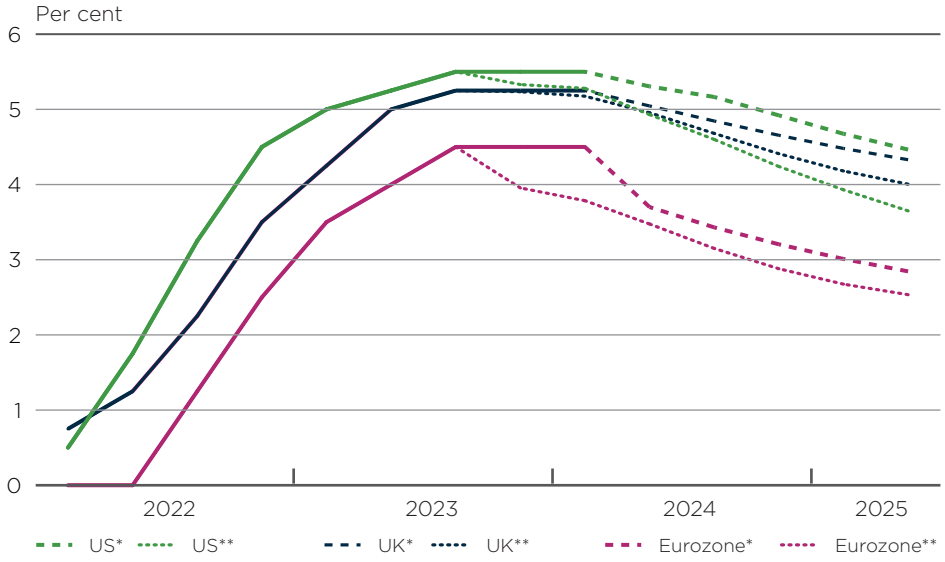
Source: Bloomberg

So far, the global financial system has withstood the impact of higher interest rates well. Among other factors, high savings buffers, locked-in low rates from the pre-hiking period and competitive labour markets in advanced economies have cushioned the initial impact of high interest rates, and the global financial system has proven resilient. However, as rates remain high for longer, the strain on borrowers is expected to increase.

Globally, fiscal deficits,[1] government debt levels and debt-service costs remain elevated. This vulnerability is expected to increase in 2024 due to a combination of tighter global financial conditions and the tendency of governments to lower taxes while increasing spending during election years. Historically, during election years fiscal deficits exceeded forecasts by 0.3% of gross domestic product (GDP) when compared to non-election years.[2] This 'fiscal slippage' may lead to fiscal consolidation not being prioritised in the near term, with growing implications for debt sustainability over the medium term.[3]

Inflation has proven stickier than anticipated and expectations of interest rate cuts have been pushed back to later in the year. At the time of the November 2023 *FSR*, policy rates in advanced economies (AEs) were at or near their peaks, with expectations that AE interest rates would start declining by the first quarter of 2024. However, the latest forecasts show that expectations (Figure 2) of rate cuts in selected AEs have been moved out to the second half of the year. This, combined with high government borrowing, could cause policy rates to remain high for longer and contribute to market uncertainty. The policy rate in the United States (US) in particular is expected to remain high for longer than anticipated at the start of 2024, resulting in a divergence between the expected US and Eurozone interest rates and a stronger US dollar in the year to date.

Figure 2: Policy rate expectations in selected AEs



* April 2024
** November 2023
Source: Bloomberg

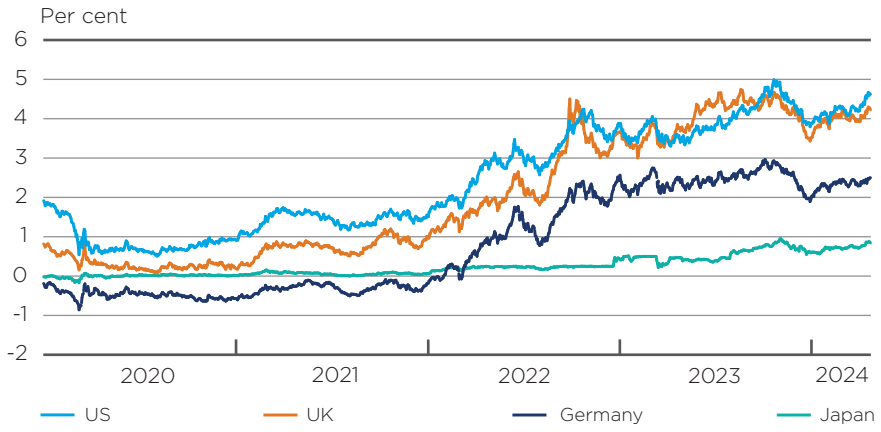
AE sovereign bond yields increased as markets priced in higher real rates and more persistent inflation (Figure 3). As spreads between yields on emerging market (EM) debt and US Treasuries (Figure 4) narrowed, the relative attractiveness of more risky EM debt waned. This could result in reduced capital flows to EMs, currency depreciations and higher costs for new and refinanced debt.

1 The shortfall in government income relative to government spending.

2 IMF. 2024. Fiscal Monitor. April 2024. https://www.imf.org/en/Publications/FM/Issues/2024/04/17/fiscal-monitor-april-2024?cid=ca-com-compd-pubs_belt

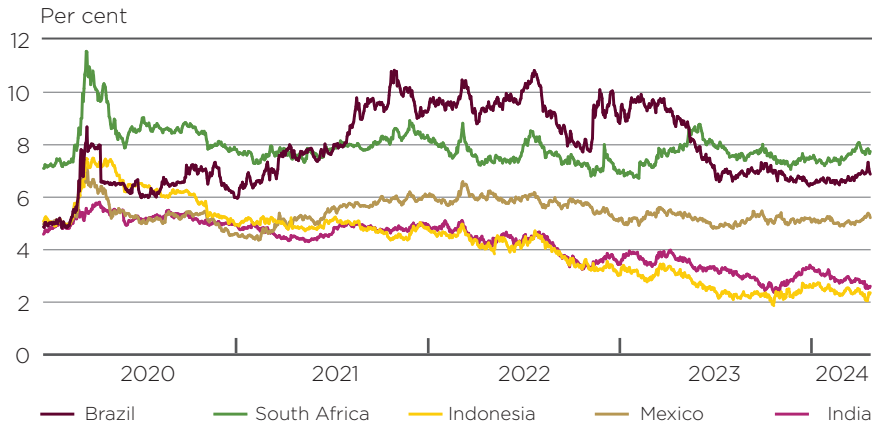
3 See the IMF's April 2024 Global Financial Stability Report (https://www.imf.org/en/Publications/GFSR/Issues/2024/04/16/global-financial-stability-report-april-2024?cid=ca-com-compd-pubs_belt) for a more detailed discussion of the issue.

Figure 3: Selected 10-year AE government bond yields



Source: Bloomberg

Figure 4: Selected 10-year EM government bond yield spreads



Source: Bloomberg

The strong growth in private credit extension in some advanced economies is increasingly highlighted as an emerging risk to financial stability.[4] Private credit refers to credit provided to households and corporates by non-banks through bilateral agreements. In recent years, credit provision has increasingly migrated from regulated banks and financial markets to more opaque private credit providers, which may not necessarily be subjected to the same rigorous levels of regulation and supervisory oversight. While this risk is not yet seen as a global systemic risk, the lack of data and information about the size, sources and possible spillovers to the regulated financial sector makes it a source of concern.

Pressure continues to mount in the global commercial real estate (CRE) sector. While jurisdictions are impacted to different extents, the common causes of the build-up of vulnerabilities in CRE property markets include high interest rates, tight lending standards, and structural changes after COVID-19. These factors have resulted in reduced transactional volumes and lower property valuations. The extent to which the financial sector is exposed to the CRE sector may result in losses that could affect the outlook for financial stability.

As a small, open economy, South Africa remains vulnerable to spillover effects from global markets and developments. However, South Africa also faces several idiosyncratic risks that may interact with global risks, as discussed in the next section.

4 The second chapter of the IMF's April 2024 Global Financial Stability Report is dedicated to a discussion of this risk (https://www.imf.org/en/Publications/GFSR/Issues/2024/04/16/global-financial-stability-report-april-2024).

Financial stability risks and vulnerabilities in South Africa

The SARB relies on a wide range of quantitative indicators as well as qualitative assessments to identify the build-up of risks and vulnerabilities that could threaten the financial system over the short, medium and longer term.[5] These risks and vulnerabilities can be categorised as:

- those that have become so structurally entrenched that they have become chronic or perpetual;
- those that are circumstantial, specific to current developments or events; and
- emerging risks that cannot yet be assessed as systemic but have the potential to become so and therefore have to be monitored.

SARB Risks and Vulnerabilities Matrix (RVM)

This assessment of risks and vulnerabilities is communicated in the SARB's RVM. The RVM shows the residual vulnerability of the financial system after considering existing mitigating factors and policy actions. The colours in the RVM represent the residual vulnerability of the financial system to each risk. If there are mitigating factors in place and the financial system is relatively well placed to absorb a shock without a broader spillover of distress across the system, the residual vulnerability is lower. If no or limited mitigating actions are taken or are available, the residual vulnerability to risk events is higher and there is a greater probability that it may lead to financial instability.[6]

Figure 5 shows the SARB's latest RVM. Each of the risks and vulnerabilities is discussed in subsequent sections.

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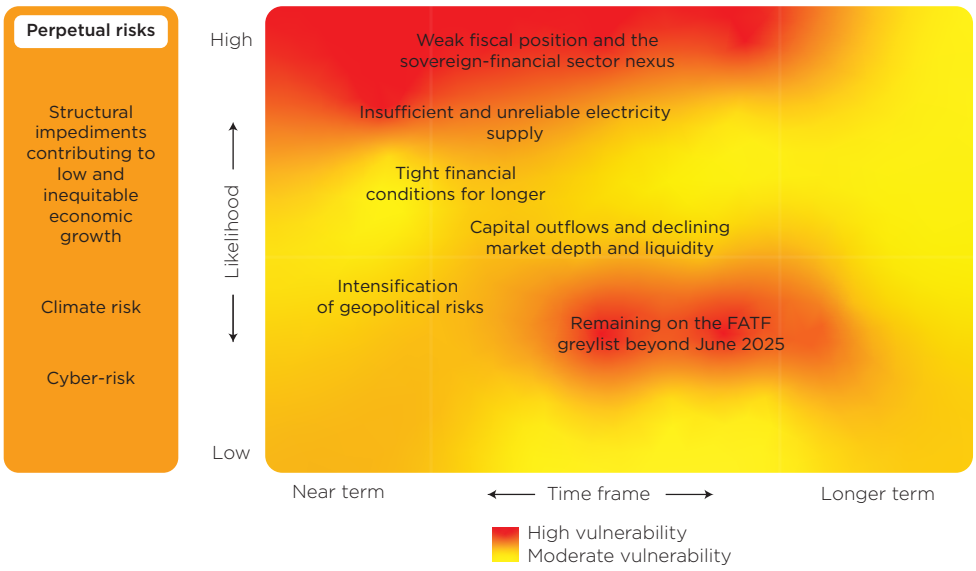
5 For detailed information on how the SARB monitors and assesses financial stability conditions, refer to Macroprudential Policy (https://www.resbank.co.za/content/dam/sarb/what-we-do/financial-stability/macroprudential-policy/SARB%20macroprudential%20policy%20framework%20and%20decision-making%20process.pdf)

6 The RVM should be interpreted with the following definitions in mind:

- **Risk:** The possibility of an adverse or undesirable event or outcome materialising. Risks may have materialised already or could still materialise in future. The materialisation of risks can often not be prevented completely, but the impact of a risk materialising may be mitigated to a greater or lesser extent.
- **Vulnerability:** A property of the financial system that (i) reflects the existence or accumulation of imbalances; (ii) may increase the likelihood of a shock; or (iii) when impacted by a shock, may lead to systemic disruption.
- **Shock:** An event that may cause disruption to, or the partial failure of, the financial system.
- **Residual vulnerability:** The remaining vulnerability after considering mitigating factors and actions.

Figure 5: SARB RVM



Weak fiscal position and the sovereign-financial sector nexus[7]

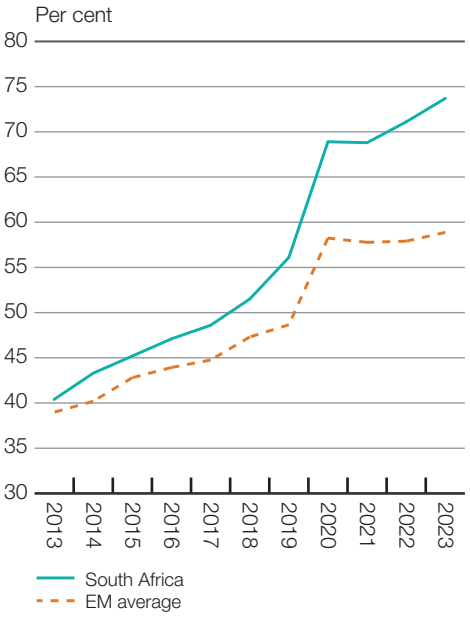
South Africa's fiscal position has steadily deteriorated over the last decade, with growth in debt-service costs and the stock of sovereign debt in issuance accelerating following the pandemic and inflation shocks. As global interest rates are expected to remain high for longer and the outstanding debt that the government must service has increased, South Africa's debt-service costs are projected to remain above 20% of main budget revenue in the medium term, well above its long-term average of 13.0%.[8]

South Africa's debt stands out compared to other EMs. South Africa's debt-to-GDP ratio of 73.7% is well above the EM average of 58.9% (Figure 6), and its interest-to-GDP ratio stands at 4.7%, compared to the EM average of 3.1% (Figure 7).

7 For a detailed discussion of how a weak fiscal position could impact financial stability, refer to the Topical Briefing published at (https://www.resbank.co.za/content/dam/sarb/what-we-do/financial-stability/Topical%20Briefing_Financial%20stability%20considerations%20of%20fiscal%20sustainability.pdf). For a discussion on how a weak fiscal position may interact and exacerbate the sovereign-financial sector nexus, refer to Box 1 of the November 2023 *FSR*.

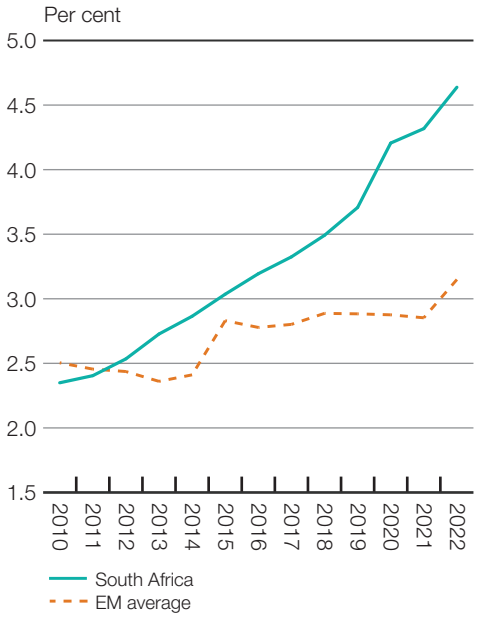
8 Refer to the 2024 Budget Review available here: https://www.treasury.gov.za/documents/National%20Budget/2024/review/FullBR.pdf.

Figure 6: Debt-to-GDP ratios: South Africa vs EM average



Source: SARB

Figure 7: Interest-to-GDP ratio: South Africa vs EM average

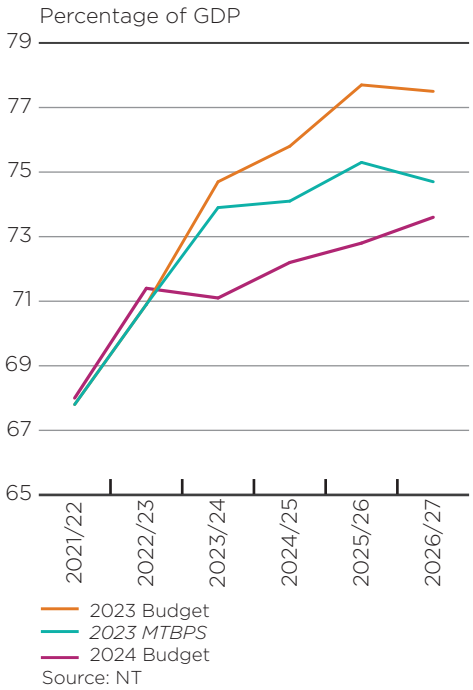


The Government's R150 billion drawdown on the Gold and Foreign Exchange Contingency Reserve Account (GFECRA)[9] is anticipated to moderate government debt somewhat (Figure 8). Government debt is now expected to peak at 75.3% of GDP, as opposed to the previous 77.7% of GDP announced in the *2023 Medium Term Budget Policy Statement (MTBPS)*.[10] South Africa's fiscal accounts nevertheless remain under pressure from sustained spending on non-growth-inducing priorities (e.g. debt-service costs and financial support to state-owned enterprises (SOEs)) and slow economic growth. South Africa's elevated debt ratio, coupled with high borrowing costs, means that debt-service costs continue to be one of the fastest-growing expenditure components for the government (Figure 9). The growth in government's debt-service costs as a share of fiscal spending has potential implications for social instability. The initial stagnation and subsequent decline in real social spending in recent years have impaired the government's ability to fund the provision of public services such as healthcare, education, housing and social protection. Given the extent of inequality in South Africa, a reduction in the availability and quality of public services and the social safety net exacerbates the already elevated risks to social cohesion.

9 For more information, see https://www.resbank.co.za/en/home/publications/publication-detail-pages/media-releases/2024/Gold-and-Foreign-Exchange-Contingency-Reserve-Account-QandA.

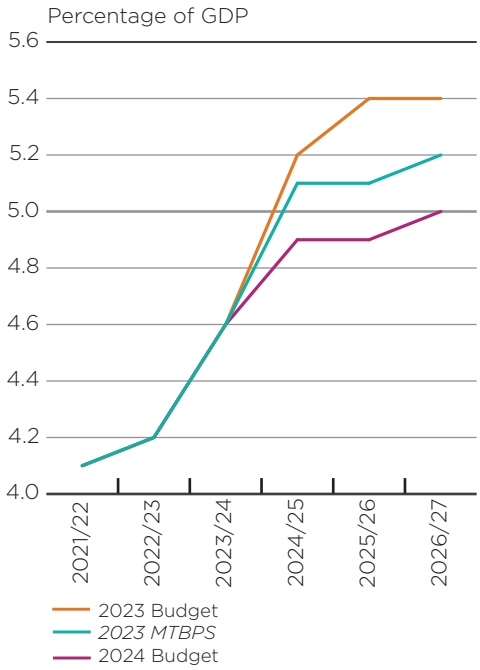
10 For more information, see https://www.gov.za/news/speeches/minister-enoch-godongwana-2024-budget-speech-21-feb-2024.

Figure 8: Projected government debt-to-GDP ratio



Source: NT

Figure 9: Projected government debt-service cost



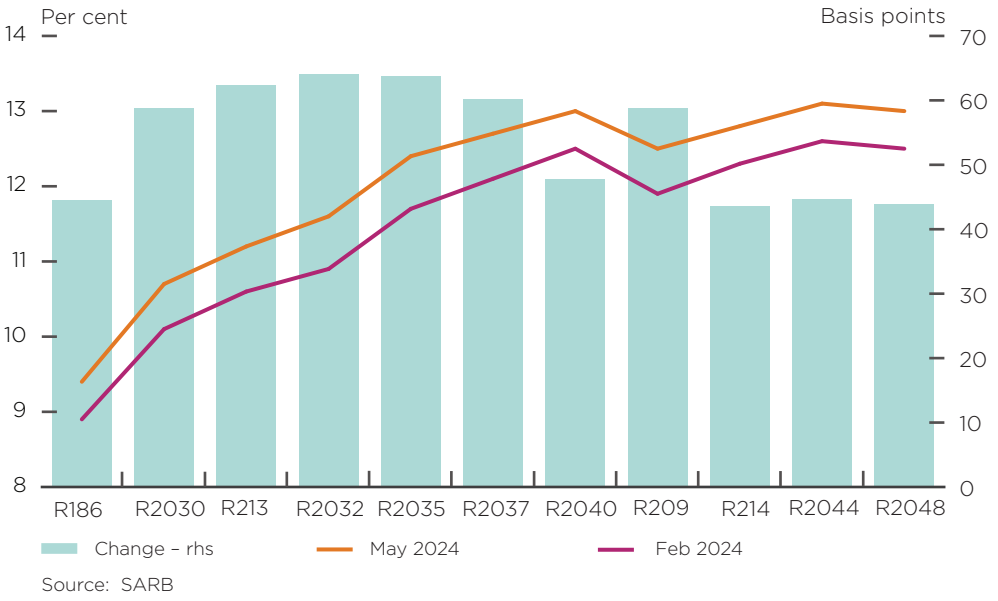
The South African financial system is highly exposed to government debt. The government's borrowing requirement has been financed with an increased issuance of long-term government bonds,[11] which the domestic financial sector has increasingly absorbed amid the steady decline in the relative holdings of non-resident investors in recent years. Government bonds comprise a high and growing proportion of financial institutions' balance sheets, potentially crowding out lending to or investing in the private sector, exposing the financial system to market risk in the event of a sharp repricing of government debt, and undermining market resilience as the financial system is increasingly exposed to a common risk.

A higher concentration of government bonds on domestic financial institutions' balance sheets also inhibits the capacity of the domestic financial system to absorb financial shocks. It may also lead to increased high-volatility, low-liquidity episodes in the domestic bond market, which would impair price discovery and represent a deterioration of trading conditions for South African government bonds (SAGBs) that could spill over to the rest of the financial market. In turn, the overall resilience of the domestic financial system is reduced.

The relatively large financing requirements of the government place upward pressure on government bond yields and increase funding costs across the financial system (Figure 10). As borrowing costs in the economy are linked to the yield curve, an upward shift and steepening of the yield curve result in higher funding costs for both public and private sector borrowers. In turn, this could make more long-term investment projects unviable and create a negative feedback loop between the elevated debt levels and debt-service costs. This has a lasting dampening impact on potential economic growth.

11 For a detailed discussion of the financial stability implications of the issue, see https://www.resbank.co.za/content/dam/sarb/what-we-do/financial-stability/Topical%20Briefing_Financial%20stability%20considerations%20of%20fiscal%20sustainability.pdf.

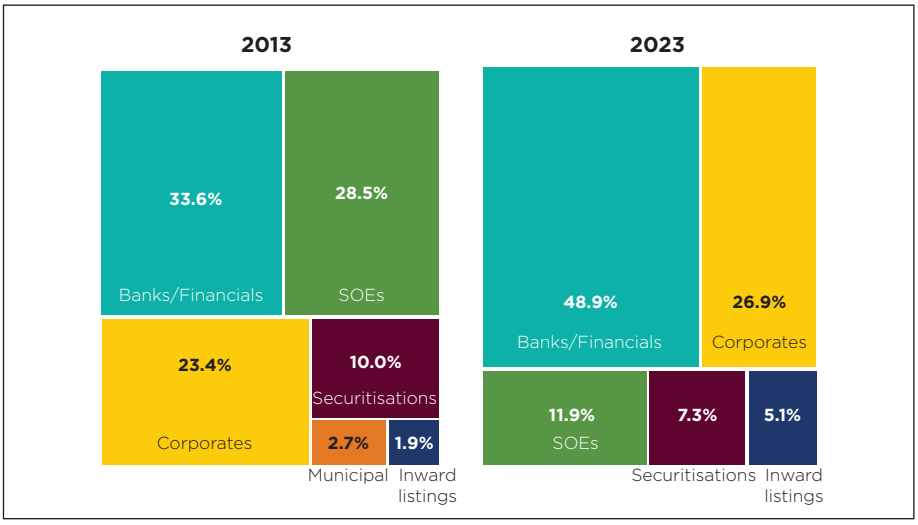
Figure 10: SAGB yield curve



Source: SARB

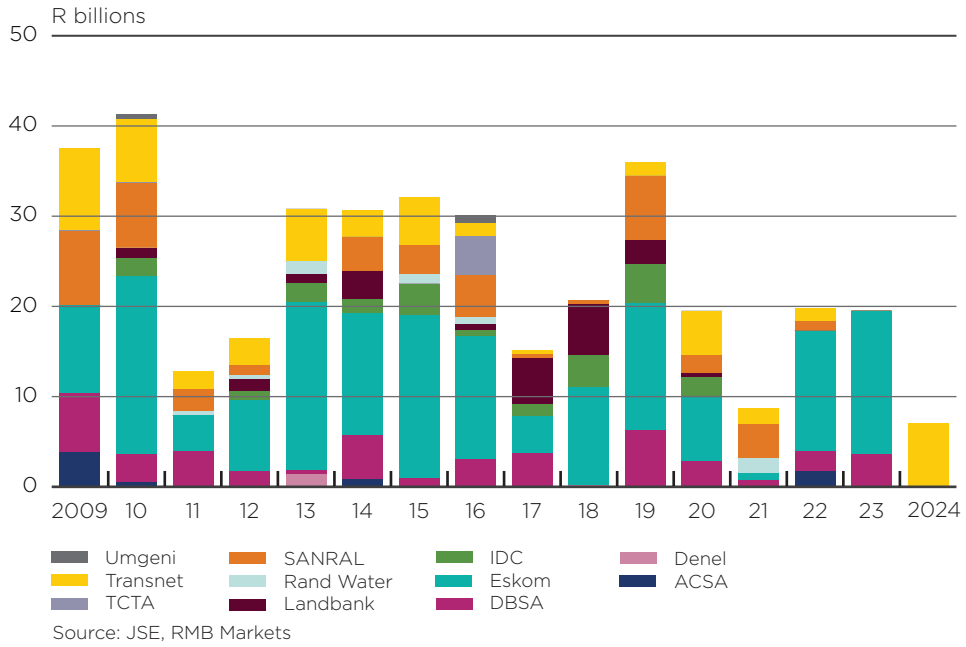
The composition of new debt issuance on the Johannesburg Stock Exchange (JSE) has changed significantly over the past decade (Figure 11). In 2013, SOEs and municipalities collectively accounted for over 30% of the value of newly issued non-government bonds, with this number falling to 11.9% in 2023 (SOEs accounted for the full 11.9% as there was no municipal issuance in 2023). Figure 12 illustrates the decreasing number of SOEs capable of placing debt in the listed market. This limits the ability of public sector entities to support their capital expenditure plans by accessing private sector funding.

Figure 11: Issuance per sector in the non-government bond market (%)



Source: JSE, RMB Markets

Figure 12: Issuance per SOE in the non-government bond market



Source: JSE, RMB Markets

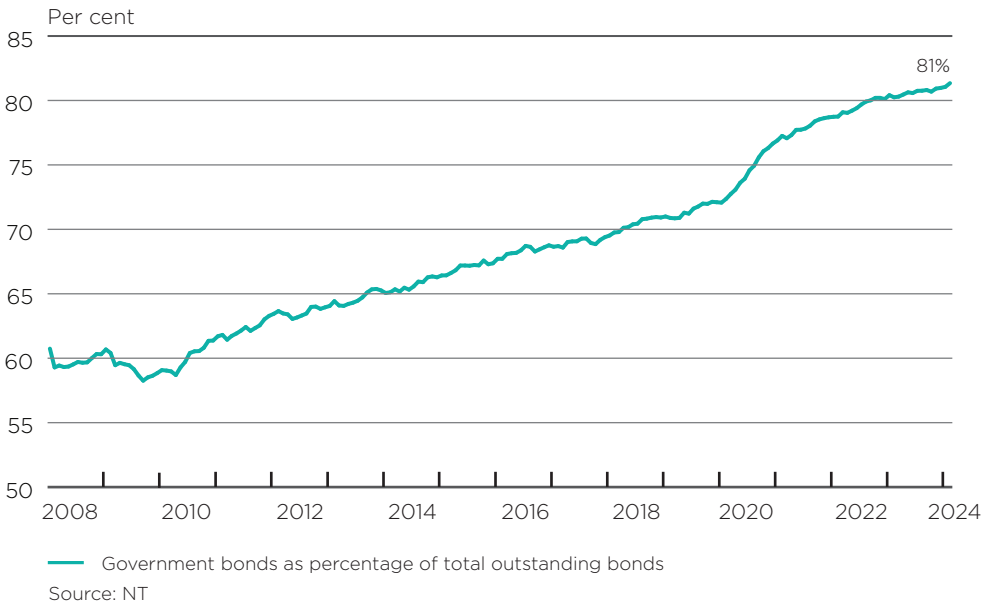
Considering the prevalence of government guarantees for SOE debt, a portion of the exposure to SOEs could convert to additional national government debt.

Capital outflows and declining market depth and liquidity[12]

South Africa's capital markets have become shallower and less liquid over the past few years, which reduces the diversification options of both borrowers and investors. The government has increasingly dominated issuance in the domestic bond market, increasing its share of total outstanding bonds from around 60% in 2008 to 81% at the end of February 2024 (Figure 13). Meanwhile, on the JSE, there have been net company delistings every year since 2016 (Figure 14). Turnover in both the domestic bond and equity markets have also declined in recent years (Figure 15), potentially affecting efficient pricing, investor returns and the cost of funding.

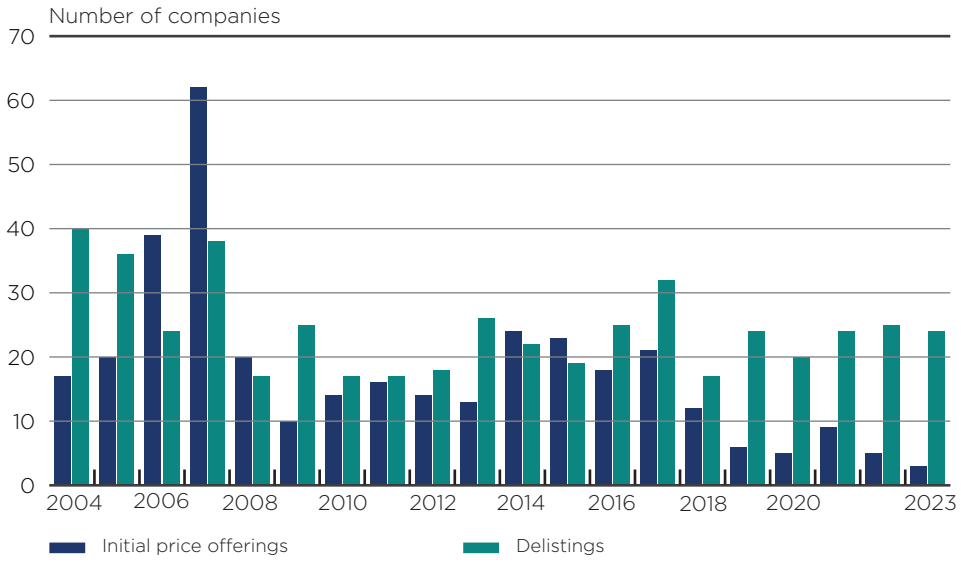
12 See Box 2 of the May 2022 *FSR* for an initial write-up of the declining market depth and liquidity.

Figure 13: Value of government bonds as a percentage of total outstanding bonds



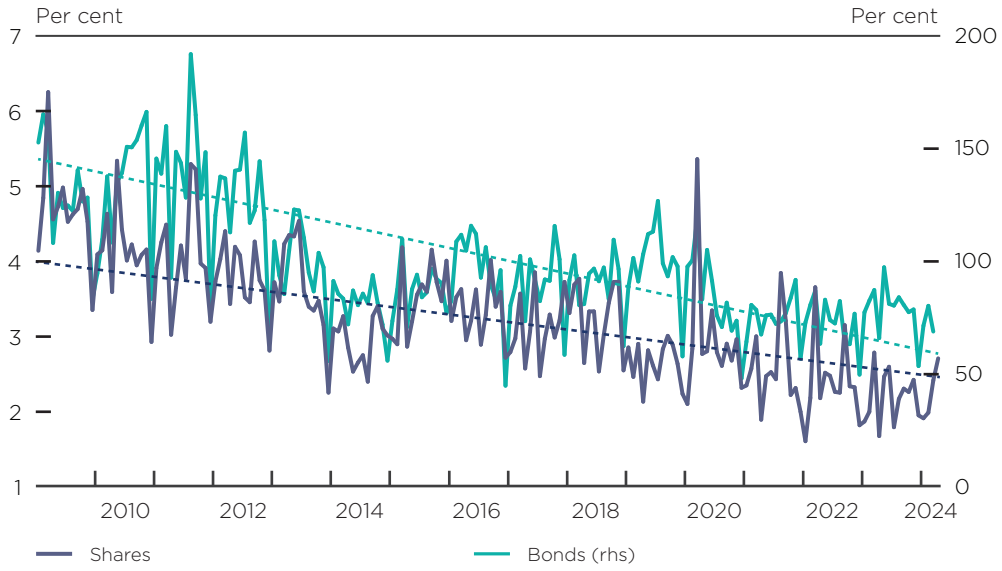
Source: NT

Figure 14: Listings and delistings



Source: JSE

Figure 15: Bond and equity turnover as percentage of total market capitalisation



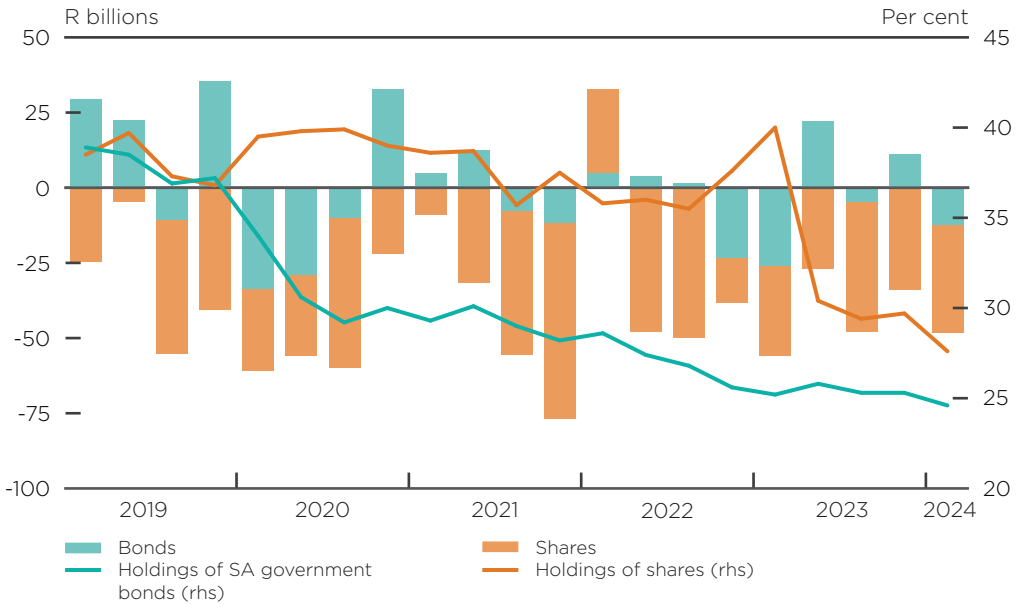
Source: Strate

There are several factors that contribute to lower capital market depth and liquidity.[13] Some of the main ones are South Africa's low growth and domestic saving rates, the crowding out of private sector debt by government, reduced foreign portfolio investment and domestic investors increasingly diversifying into global markets.

Non-residents were net sellers of R12.4 billion worth of JSE-listed bonds in the first quarter of 2024 after net purchases of bonds to the value of R11.2 billion in the fourth quarter of 2023 (Figure 16). Continued outflows from the equity market were reflected in the share of non-residents' holdings of domestic shares, which reached a new low of 27.6% at the end of March 2024 (down from 29.7% in December 2023).

13 The SARB is doing more work on structural changes in South Africa's capital markets. This and the reasons for it will be shared in future editions of the *FSR*.

Figure 16: Non-resident net transactions in the domestic bond and equity markets



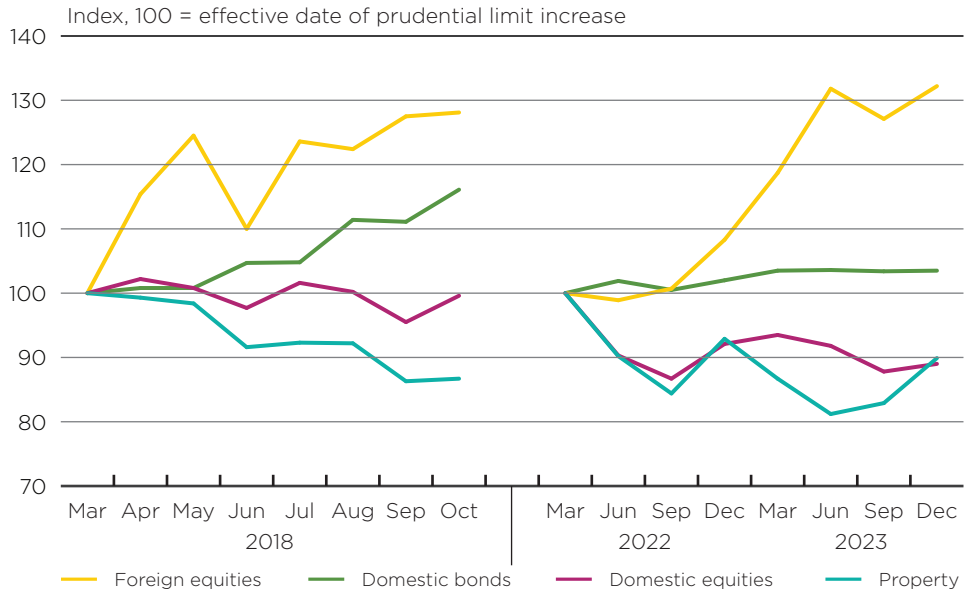
Sources: JSE and NT

On 23 February 2022, following a decision by National Treasury (NT), the SARB issued a circular to increase the offshore prudential limit for all South African institutional investors to 45%, inclusive of the 10% Africa allowance.[14] This followed the announcement in the 2022 Budget Speech that the offshore prudential limit for all insurance, retirement and savings funds would be harmonised at 45% of total retail assets under management, applicable to all qualifying institutional investors. The previous limits were set at 30% or 40% for different investors, with a separate Africa allowance of up to 10%.

The rationale for the decision was that with a shrinking economy, sustained delistings on the JSE and structurally lower economic growth, the offshore prudential limit increase should offer increased diversification opportunities to domestic investors. The previous increase in the offshore prudential limit for domestic institutional investors was in 2018. Following the announcement of the increase in both 2018 and 2022, there was a marked increase in domestic investors' foreign asset allocation, with a sharp increase in exposure to foreign equities at the expense of domestic equities and exposure to domestic property portfolios (Figure 17).

14 Refer to Exchange Control Circular No. 10/2022, available at https://www.resbank.co.za/content/dam/sarb/what-we-do/financial-surveillance/institutional-investors/10-2022.pdf.

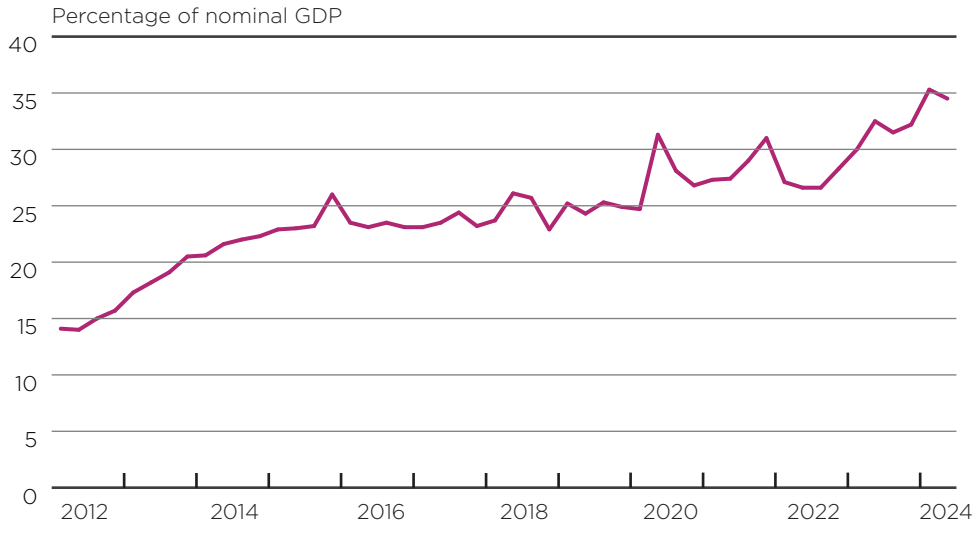
Figure 17: Changes in domestic investors' asset allocation after the prudential limit increase



Sources: SARB and World Bank

At the end of March 2024, total offshore asset allocations of domestic institutional investors amounted to 35.3% of GDP, more than double the 15.7% of GDP reported at the end of 2012 (Figure 18).[15] As total offshore asset allocation increased, domestic institutional investors' unutilised offshore capacity decreased, with a marked acceleration noted since the latest limit increase in February 2022 (Figure 19).

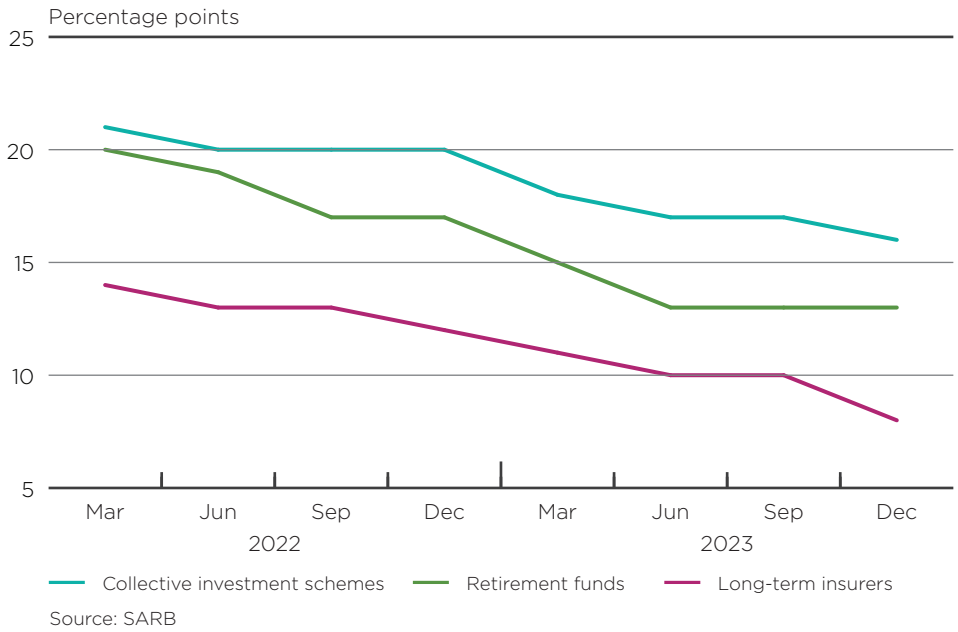
Figure 18: Total offshore asset allocation as a percentage of GDP



Sources: SARB and Bloomberg

15 Erratum: Figure 18 initially erroneously reflected quarterly, non-seasonally adjusted GDP data instead of seasonally adjusted, annualised data, causing an inflated number to be reported. This has been corrected in this version of the *FSR*.

Figure 19: Unutilised offshore capacity of domestic institutional investors



Source: SARB

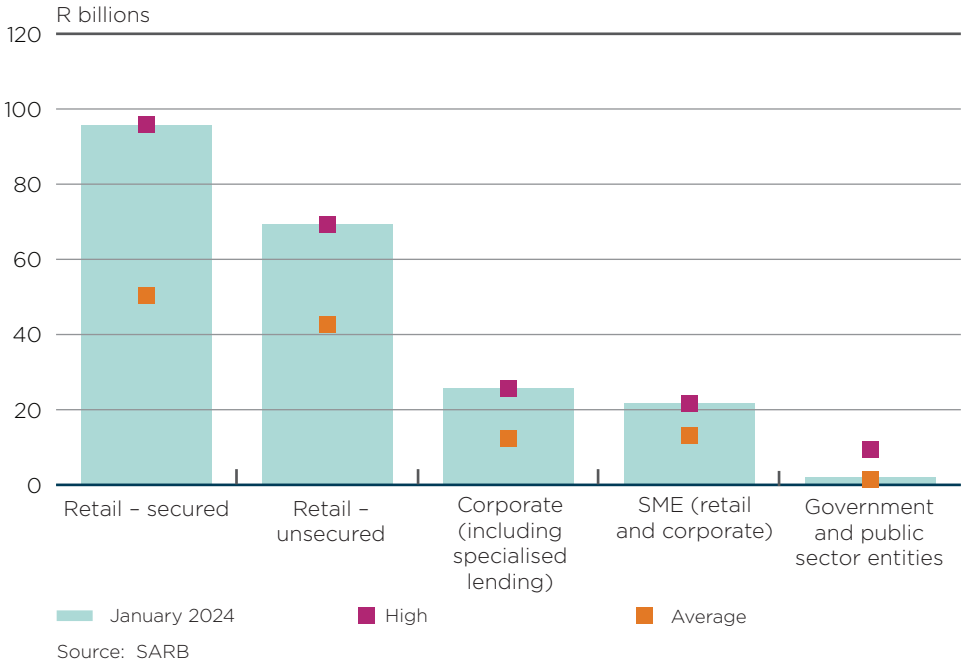
The increase in offshore prudential limits has both positive and negative financial stability implications. While it may have distributional effects on the domestic capital markets and contribute to a loss of depth and liquidity, it provides diversification opportunities and the possibility of higher earnings for domestic investors. As the aggregate new limit is approached (considering that not all investment mandates allow foreign exposures), it becomes a stabilising factor as all returns that push exposures over the limit have to be repatriated.

Tight financial conditions for longer

High policy rates contribute to restrictive financial conditions, as households, companies and governments find it more difficult and more expensive to access credit. From a bank perspective, banks initially benefit from the endowment effect arising from rising interest rates, as a significant part of its deposit base does not reprice as quickly as interest rates increase. However, this effect wears off the longer interest rates remain high as deposit rates start to respond. Higher lending rates also increase credit risk and borrower distress. Figure 20 shows that the banking sector's non-performing loans (NPLs)[15] for the largest asset classes are at their highest levels in a decade, and well above the average for the past 10 years. This could manifest in rising credit losses, which could reduce bank capital and profitability.

15 Non-performing loans are defined as loans that are overdue for more than 90 days.

Figure 20: NPLs in the banking sector

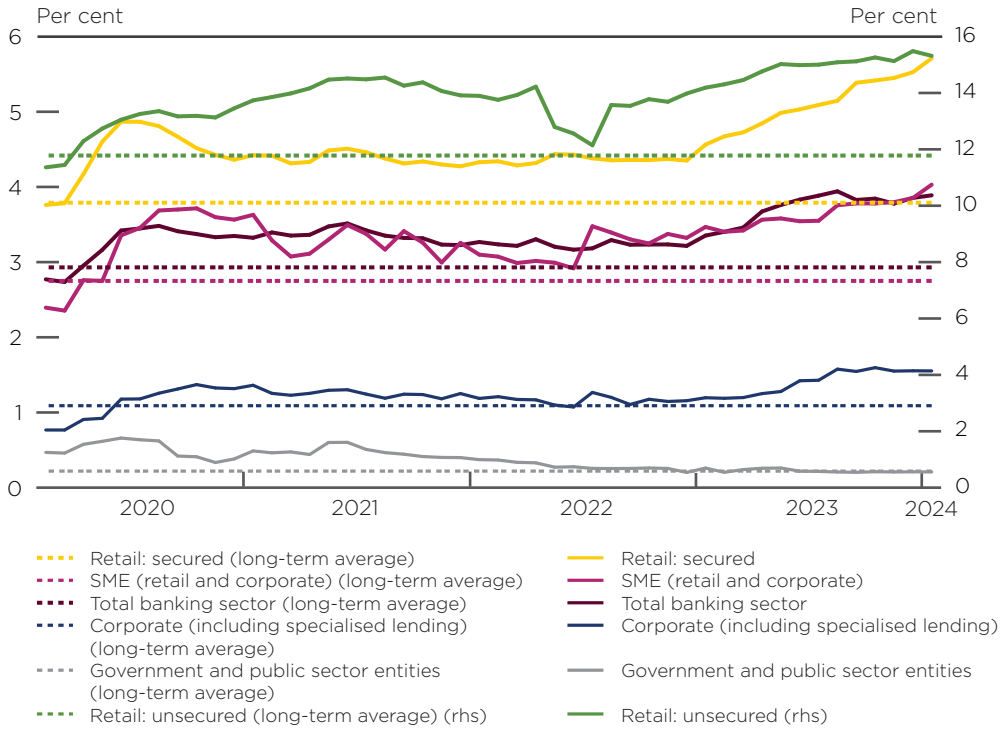


Source: SARB

NPL ratios[16] for significant asset classes are above their long-term averages and rising (Figure 21). The highest ratio of NPLs is in unsecured retail loans, which is usually the first asset class to exhibit increasing stress. Although corporate loans have one of the lowest NPL ratios, the growth in NPLs for this loan category has averaged over 50% since the third quarter of 2023. NPLs for secured retail lending (i.e. for loans made against collateral such as houses and cars) have grown more than 30% on average since September 2023, suggesting that consumers are under increasing stress in the current high interest rate environment.

16 The NPL ratio is the ratio of loans overdue for more than 90 days as a percentage of on-balance sheet loans and advances.

Figure 21: NPL ratios for significant loan types

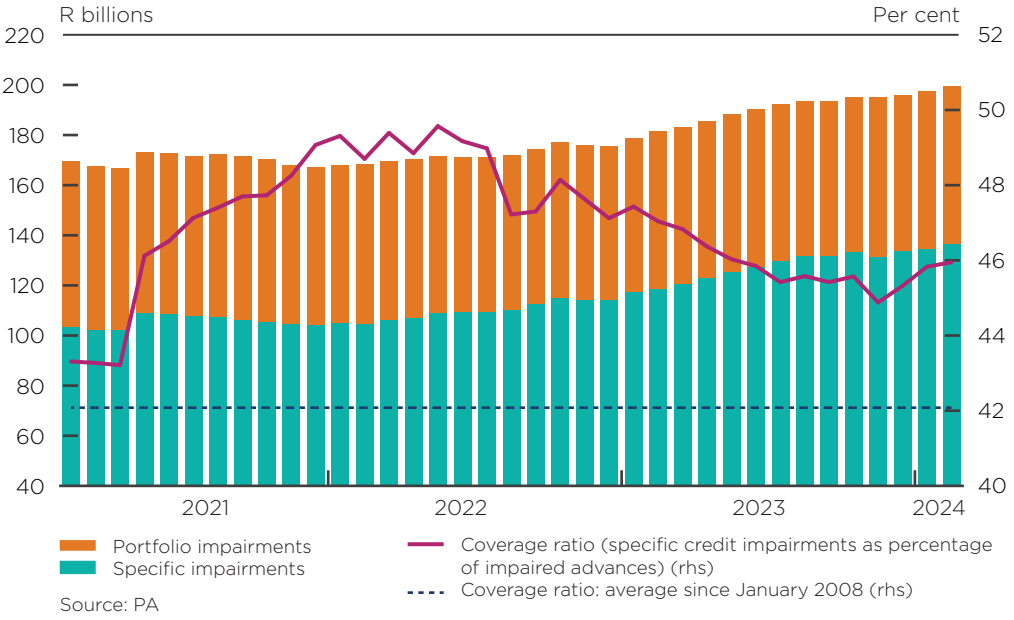


* Long-term average: average since January 2014

Source: SARB

To mitigate the uptick in NPLs, banks have been increasing their provisions for potential credit losses (Figure 22). Banks have been increasing their provisions faster than credit is being extended, as reflected by the growing value of impairments raised, suggesting that they should be able to absorb a further increase in defaults.

Figure 22: Impairments and specific impairments as a percentage of impaired advances



Source: PA

Intensification of geopolitical risks

Since the publication of the November 2023 *FSR*, geopolitical risks and geoeconomic fragmentation have intensified, with potential implications for financial stability in South Africa. In a world of escalating military conflicts, shifting economic and political alliances and uncertain international policies, a small open economy such as South Africa faces several risks. These include, among other risks, changes in the level and direction of existing trade and financial flows, volatility in the prices of both imported and exported commodities, supply chain constraints and disruptions in international transport systems.

The ongoing uncertainty associated with simmering geopolitical tensions is also likely to weigh on investor sentiment, resulting in volatile capital flows and asset prices. At a political level, policy uncertainty as a result of elections in more than 70 countries, an upsurge in nationalism and populism across the world and increased polarisation around the conflicts in Ukraine and Middle East as well as around the US-China relationship may have unintended consequences in terms of capital flows, trade relations and access to international financial markets.

Remaining on the Financial Action Task Force greylist beyond June 2025

As a result of being added to the Financial Action Task Force (FATF) greylist in February 2023, the European Union (EU) added South Africa to its list of high-risk countries in June 2023. Subsequently, in early December 2023, the United Kingdom (UK) also classified South Africa as a high-risk third-party country, with the European Securities and Markets Authority (ESMA) derecognising JSE Clear as a qualifying central counterparty (CCP) with effect from 29 December 2023. The Bank of England granted a 15-month run-off regime for JSE Clear which will end on 28 March 2025, with the possibility of extension based on future developments.

The FATF published the latest update on South Africa on 23 February 2024[17] following its Plenary meetings. After the greylisting in February 2023, a jointly agreed-upon Action Plan between South Africa and the FATF was adopted. The Action Plan listed 22 action items linked to the strategic deficiencies identified in South Africa's anti-money laundering and combating the financing of terrorism (AML/CFT) regime, all of which have to be addressed by no later than January 2025 if South Africa is to be removed from the greylist following its next assessment.

Insufficient and unreliable electricity supply

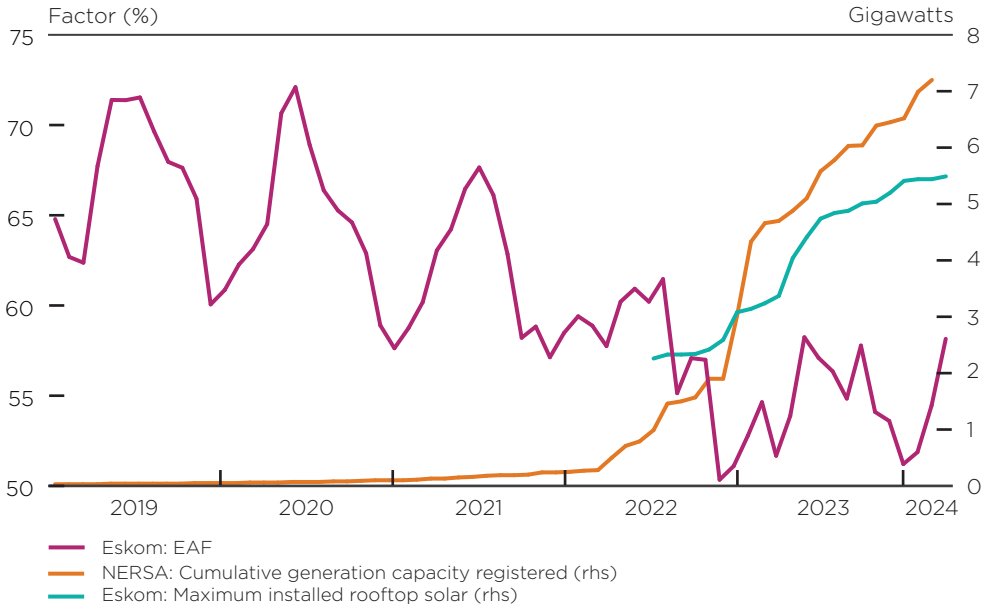
After experiencing record levels of load-shedding in 2023, the scale and intensity of load-shedding have been considerably milder since April 2024. Eskom's energy availability factor (EAF) averaged approximately 52% in the first quarter of 2024, before improving notably to 58.2% at the end of April (Figure 23).

17 Updates on the FATF greylist are available at https://www.fatf-gafi.org/en/publications/High-risk-and-other-monitored-jurisdictions/Increased-monitoring-february-2024.html.

The rapid uptake of alternative energy sources is likely to have contributed to reduced demand for Eskom-supplied electricity. According to Eskom estimates, rooftop solar capacity of approximately 5.5 gigawatts (GW) had been installed as at 30 April 2024, compared to 3.1GW in January 2023 (Figure 23). In addition, new electricity generation projects (primarily by the private sector) registered with the National Energy Regulator of South Africa (NERSA) totalled 4.49GW in 2023, compared with 1.66GW for the entire 2022, bringing the cumulative generation capacity of registered projects to 7.2GW as at 30 April 2024. Eskom's residual electricity demand[18] is noticeably lower than in previous years (Figure 24).

The confluence of the factors described above, coupled with broader energy sector reforms and ongoing efforts by Eskom to stabilise the performance of its coal-fired power stations, suggests that electricity supply and grid stability may continue to improve gradually. Over time, such improvement should reduce the drag of load-shedding on economic activity.[19]

Figure 23: Eskom EAF and renewable generation registered and installed

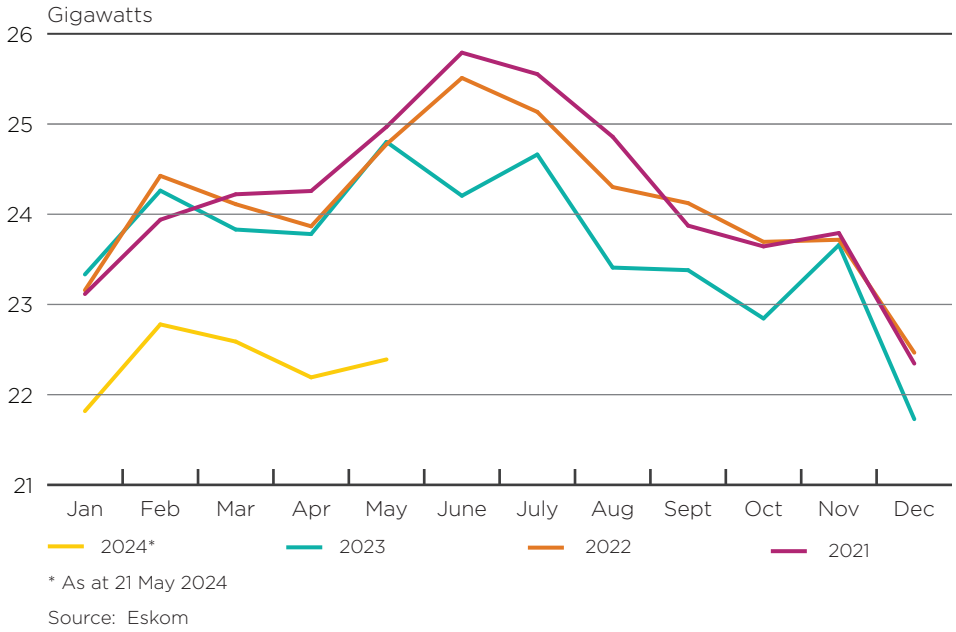


Sources: Eskom, NERSA and SARB

18 Residual electricity demand refers to electricity demand that Eskom needs to meet with dispatchable generation sources (e.g. coal-fired power stations) and imports.

19 As highlighted in the April 2024 *MPR*, the SARB now expects load-shedding to detract 0.6, 0.2 and 0.04 percentage points from growth in 2024, 2025 and 2026 respectively, which is lower than the estimate of 0.8 and 0.4 percentage points for 2024 and 2025 at the time of the October 2023 *MPR*. South African Reserve Bank, *Monetary Policy Review*, Pretoria: South African Reserve Bank, April 2024.

Figure 24: Average monthly Eskom residual demand



* As at 21 May 2024

Source: Eskom

The risk of a complete electricity grid failure has reduced but cannot yet be completely ruled out. The SARB continues, through the Financial Sector Contingency Forum (FSCF), to plan and prepare for a situation, such as a grid failure, that could require the sudden closure of financial markets. Current efforts are centred on developing, coordinating and testing contingency plans to mitigate, to the extent possible, the impact on the financial system and the economy.

Perpetual risks

There are certain perpetual, long-term risks that cannot readily be fitted into the RVM, but that pose continuous risks to financial stability. The main perpetual risks discussed in this edition of the *FSR* are structural impediments contributing to low and inequitable growth, the impact of climate change and the risk of major cyber-attacks.

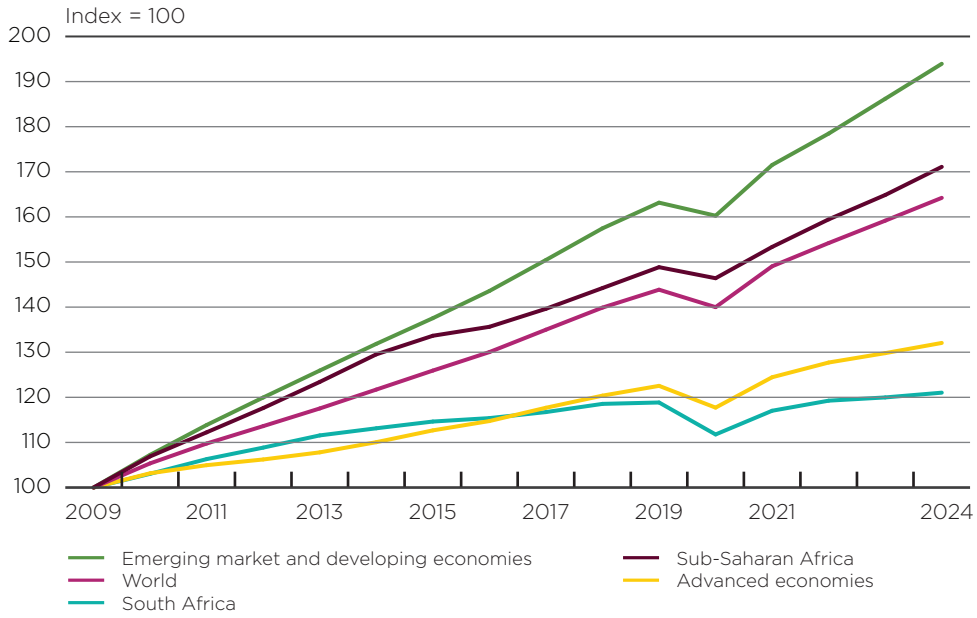
Structural impediments contributing to low and inequitable economic growth

A long period of low growth can have a slow-burning effect on financial stability through various channels. These include, among other channels, higher risk premiums and funding costs, lower capital inflows and foreign investment, a greater probability of social unrest with spillover effects on the financial system, higher levels of risk taking by financial institutions as they try to maintain profitability and a reduced offering of less profitable products.

Poor economic performance continues to weigh on South Africa's attractiveness as an investment destination. Since 2009, South Africa's economic growth has lagged behind that of the world, emerging market and developing economies (EMDEs) and sub-Saharan Africa (Figure 25). South Africa's unemployment rate of 32.9% at the end of March 2024 (up from 32.1% in December 2023)[20] is significantly higher than other emerging markets. Youth unemployment also increased from 44.3% in December 2023 to 45.5% in March 2024. High unemployment is a major contributing factor to economic inequality.

20 For more information, see https://www.statssa.gov.za/publications/P0211/Media%20release%20QLFS%20Q1%202024.pdf.

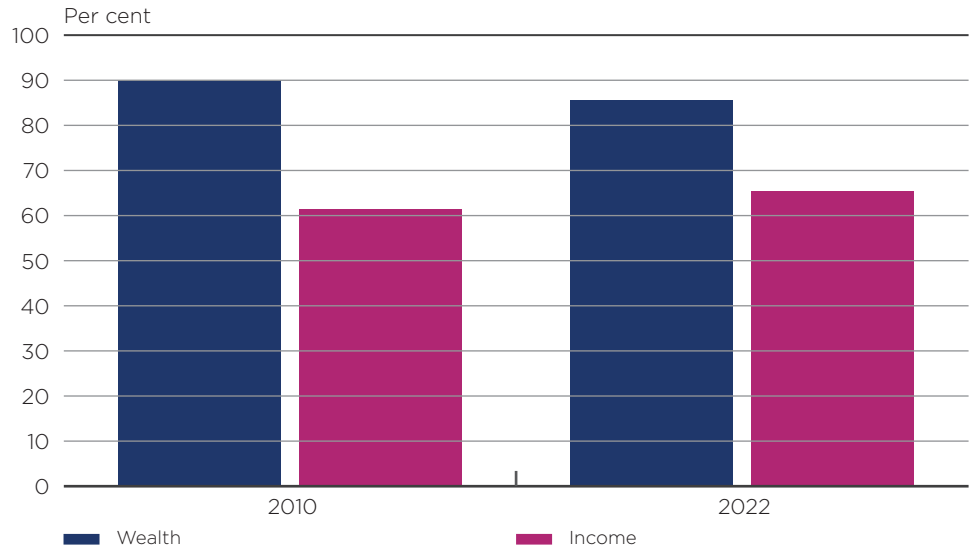
Figure 25: GDP performance over the past 15 years



Source: IMF

South Africa remains one of the most unequal countries in the world as measured by wealth and income distribution (Figure 26). In 2022, the wealthiest 10% of South Africans owned more than 85% of household wealth, 5% lower than in 2010. However, income inequality deteriorated over the same period, with the top 10% of households earning more than 65% of total income in 2022, up from 61.4% in 2010. A sizeable share of the country's population remains dependent on the government for basic income, putting a structural burden on an already strained fiscal position and relatively narrow tax base.

Figure 26: South African wealth and income inequality (top 10% 2022)



Source: World Inequality Database

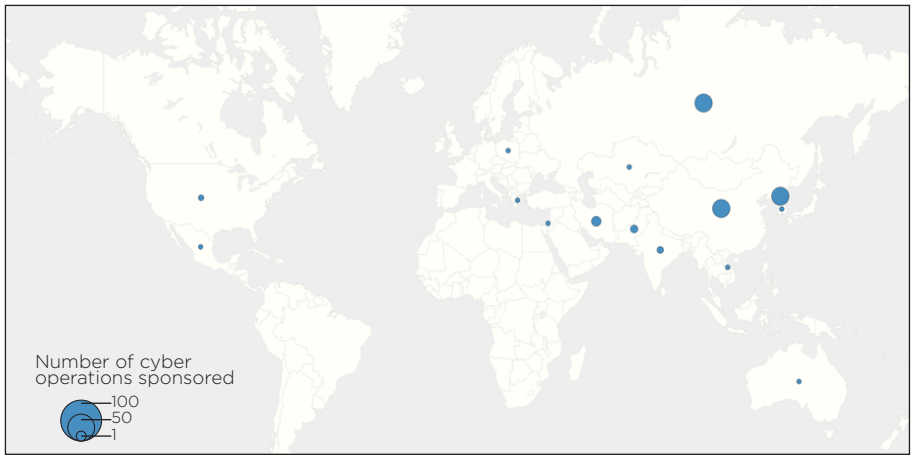
High levels of wealth and income inequality are associated with greater financial stability risks.[21] Persistently high inequality can make societies more susceptible to social instability, which may have subsequent spillovers to the financial sector (e.g. in the form of increased insurance claims should there be social unrest).

Cyber-risk

A successful cyberattack with systemic consequences remains an ever-present risk to financial stability. The financial sector has to deal with and ward off cyber-attacks on a daily basis. A successful attack on critical financial infrastructure has the potential to disrupt the payment, clearing and settlement system, with potentially far-reaching consequences. Ransomware attacks threatened both critical infrastructures and enterprises during 2023, with 78% of South African organisations reporting a ransomware attack between January and March 2023; up from 51% in 2022.[22] The ability of a cyberattack to cause a systemic event was observed in Lesotho when its central bank announced on 12 December 2023 that a cyber-incident the previous day caused it to suspend some of its systems, causing interruptions to interbank and international payments.[23]

Cyberattacks are borderless and can come from anywhere. Noteworthy is the increase in state-sponsored cyberattacks (Figure 27). State-sponsored attacks are potentially more harmful as they may be politically motivated and intended to disrupt financial systems, rather than being aimed at financial gain.

Figure 27: Countries with the highest number of state-sponsored cyberattacks



Source: Council on Foreign Relations, Cyber Operations Tracker

21 Čihák and Sahay. (2020). Finance and inequality. IMF. Available at https://www.imf.org/-/media/Files/Publications/SDN/2020/English/SDNEA2020001.ashx

22 See https://www.sophos.com/en-us/whitepaper/state-of-ransomware

23 For more information see https://www.centralbank.org.ls/images/Public_Awareness/Press_Release/Cyber_Security_Incident_CBL.pdf

Due to the continuous nature of cyber-risk, persistent vigilance and the improvement of cyber defences remain crucial. This includes implementing fundamental security hygiene practices, such as enabling multifactor authentication; applying zero-trust principles; using extended detection and responseas well as anti-malware staying up to date, for instance with patching version control across all systems; and implementing data protection and management.[24] Data on attempted cyberattacks on domestic financial institutions remain scarce. However, financial institutions and regulators are working collaboratively on incident reporting, monitoring and response structures, which should result in a clearer view of the domestic threat landscape once implemented.

To mitigate cyber-risk, the SARB published a directive in respect of cybersecurity and cyber-resilience in the national payment system on 21 May 2024.[25] In addition, the FSCA and PA published a joint standard on cybersecurity and cyber-resilience on the same date.[26] The directive and joint standard set out the requirements with which the entities under the purview of the relevant authorities must comply, including defining cyber-risk governance structures, implementing a cybersecurity strategy and framework and cyber-resilience measures.

Climate risk

Climate risk is split into two key risk types, namely physical risk and transition risk. Physical risk refers to the potential financial losses that could be suffered as a result of extreme weather events caused by climate change. The increasing frequency and impact of extreme weather events result in more substantial damage to property and often concomitant losses for insurance companies, banks and other financial institutions that are exposed to the affected industries or assets. Transition risk arises from the broader global movement towards a greener, more sustainable and lower-carbon economy, which would, among other effects, reduce the value of non-qualifying financial assets and exposures.

Although all financial institutions are affected by climate change, in recent years the insurance industry has been particularly hard hit. Climate change continues to contribute to a growing number of extreme weather events in South Africa, both in terms of frequency and severity. Such events dominated the domestic insurance industry's claims statistics in 2022 and 2023. Among other implications, these climate-related changes have exposed insurers to a periodic increase in the number of weather-related claims, heightened re-insurance premiums and increased premiums for consumers.

At a global level, adverse weather conditions have raised concerns over the climate insurance protection gap, which refers to the uninsured portion of economic losses arising from climate-related natural disasters.[27] This gap is expected to widen amid changing weather patterns, presenting challenges for insurers. First, increased underwriting and liquidity risks from more frequent and severe weather-related claims can weaken insurers' solvency positions. Second, extreme climate

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24 See https://www.microsoft.com/en-us/security/security-insider/microsoft-digital-defense-report-2023.

25 The directive is available at: https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/consultation-documents/Draft%20directive%20in%20respect%20of%20cybersecurity%20and%20cyber-resilience%20within%20the%20national%20payment%20system.pdf

26 The communication and joint standard are available at: https://www.resbank.co.za/en/home/publications/publication-detail-pages/prudential-authority/pa-public-awareness/Communication/2024/Joint-Communication-2-of-2024-Publication-of-the-Joint-Standard-Cybersecurity-and-cyber-resilience

27 The concept of the protection gap incorporates three key categories: (i) insured losses - total losses covered by insurance, representing payments made for legitimate claims; (ii) insurable losses - alongside insured losses, include amounts that could have been covered but have not been and; (iii) economic losses - encompass the total of all losses, irrespective of their insurability.

and weather-related changes may hinder insurers' ability to forecast losses due to the unreliability of past data. Third, diversification of underwriting portfolios may diminish due to the randomness of events across regions.

The climate insurance protection gap introduces financial stability implications across various sectors. It has implications for households, firms, governments, banks and other financial institutions (OFIs) such as real estate investment trusts (REITs). For households and firms, a lack of product offerings and/or higher premiums hinder the post-disaster financing of construction in the form of lower productivity and output, negatively impacting GDP. Governments may face increased debt burdens, placing additional pressure on the fiscus, potentially exerting upward pressure on bond yields, which would impact banks, insurers and OFIs as sovereign investors. Banks may experience increased credit risk due to a reduced pool of eligible collateral, while declining property values may significantly impact REITs' financial performance.

To increase the South African financial sector's longer-term resilience against climate risk, the PA published guidance notes on climate-related disclosures, governance and risk practices for banks and insurers on 10 May 2024.[28]

Policy actions and initiatives undertaken to enhance domestic financial stability

Enhancing the financial safety net through the operationalisation of the Corporation for Deposit Insurance

The Corporation for Deposit Insurance (CODI) became operational on 1 April 2024, which means that qualifying depositors are now protected for an amount up to R100 000 of their deposits in accounts in qualifying products should their bank fail. The operationalisation of CODI is a significant step in enhancing the domestic financial safety net and increasing systemic resilience. As a subsidiary of the SARB, CODI supports the SARB's mandate to protect and enhance financial stability. CODI's main functions are (i) to build and manage a fund, called the Deposit Insurance Fund (DIF), which CODI will use to provide depositors with access to their covered deposits in the unlikely event of their bank failing and being placed into resolution; and (ii) to promote awareness among the public, specifically depositors of banks, of the depositor protection they can access through CODI.[29]

Ongoing progress with resolution standards

Since being designated as the Resolution Authority on 1 June 2023 in terms of the amended FSR Act, the SARB has been working on the implementation of the resolution framework as set out in the FSR Act. This includes work on the development of resolution plans for designated institutions and setting detailed requirements to improve their resolvability. In support of this objective, several Prudential Standards are being developed and are in various stages of approval and subsequent implementation. These include requirements on stays and resolution moratoriums, transfer of assets and liabilities in resolution, Flac requirements, valuators and resolution valuations, resolution groups and funding in resolution. The steady progress being made with the development and implementation of various resolution standards further increases the robustness of the domestic financial system.

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28 The guidance notes are available here: https://www.resbank.co.za/en/home/publications/guidance-notes

29 More information on CODI is available here: https://www.resbank.co.za/en/home/what-we-do/Deposit-insurance

Introducing a positive cycle neutral countercyclical capital buffer

The SARB continued to monitor relevant developments in the build-up to the increase in the countercyclical capital buffer (CCyB) from 0% to 1% on 1 January 2025. Refer to the dedicated write-up in the next section for a discussion of the feedback received from banks on the draft directive on the positive cycle-neutral (PCN) CCyB and the policy trade-offs the SARB considered in the build-up to its final decision.

Mitigating the sovereign-financial sector nexus

The SARB continued to monitor developments around the sovereign-financial sector nexus closely, in particular given the high levels of government debt and the domestic financial sector's exposure thereto.

Increasing the financial sector's resilience to deal with a national electricity grid shutdown

The SARB, through the FSCF, continued to plan for the highly unlikely but not impossible scenario of a national electricity grid shutdown and other potential systemic events. The FSCF is currently considering how best to maintain interoperability of systems, connectivity and communications should a systemic event occur.

Collaborating with FSOC members

The SARB collaborated with FSOC members to discuss some of the key risks to financial stability, particularly on the financial stability implications of the weak fiscal position and the persistent trend of declining market depth and liquidity.

Enhancing macroprudential policy transparency

The SARB published an updated macroprudential policy framework and decision-making process, and an updated financial stability monitoring and assessment framework.[30] The publication of the two policy documents aims to increase transparency on how the SARB pursues its financial stability mandate.

Enhancing cyber-resilience within the financial sector

On 21 May 2024, the SARB issued a directive on cybersecurity and cyber-resilience in the national payment system. In addition, the Financial Sector Conduct Authority (FSCA) and the PA issued a joint standard on the same topic on the same date. The publication of the directive and the joint standard is expected to increase the resilience of the financial system to cyber-risk.

Enhancing the financial sector's resilience against climate risk

The PA published guidance notes on climate-related disclosures, governance and risk practices for banks and insurers on 10 May 2024.

Assessment

The South African financial system faces several risks to financial stability. However, steady progress has been made to reduce the vulnerability of the domestic financial system against the key risks highlighted, most notably by strengthening the domestic financial safety net and mitigating the impact of a potential systemic event.

30 See the SARB Macroprudential Policy, available here: https://www.resbank.co.za/en/home/what-we-do/financial-stability/macroprudential-policy

Prudentially regulated domestic financial institutions, in aggregate, remained resilient, as measured by their ability to maintain adequate capital and liquidity buffers to absorb the impact of shocks. Financial institutions have been able to provide financial services uninterruptedly and are expected to continue doing so over the forecast period to May 2025.

Briefings on selected topics

This section focuses on briefings on topics relevant to financial stability, to inform and stimulate debate.

Feedback on the proposed Banks Act Directive for implementing a positive cycle-neutral countercyclical capital buffer and continuous assessment of potential implications

On 27 November 2023, the PA published for comment the proposed directive for implementing a PCN CCyB.[31] Comments were received from six banks and predominantly related to the potential redundancy of Pillar 2A as the banks noted it could be used to accommodate the 1% increase in the CCyB. Some banks were concerned about the potential adverse effects on lending due to the CCyB increase, noting the currently low credit-to-GDP gap, while others advocated for a longer transition period.

At its meeting in February 2024, the SARB FSC considered and discussed the comments received, but agreed that implementing the PCN CCyB was a prudent move to enhance the banking sector's resilience. However, the FSC resolved that the initial impact assessment be supplemented by an economic impact assessment, which is currently under way. Salient details of the initial impact assessment and decision-making process are discussed below.

Following in-principle agreement by the FSC that a PCN CCyB should be implemented in South Africa, one of the key considerations was how the PCN CCyB would be funded by banks. Two options were considered, each with arguments for and against its use:

Option 1: Implement a PCN CCyB by substituting part of the existing capital framework.

Table 1: Arguments for and against implementing a PCN CCyB by substituting part of the existing capital framework

Arguments for	Arguments against
• Substituting part of the existing capital framework would potentially enhance flexibility, transparency and predictability in terms of how various parts of the capital framework would be utilised. • There is an existing component of the capital framework that aims to mitigate systemic risk and applies to all banks uniformly (i.e. Pillar 2A). • During the COVID-19 crisis, Pillar 2A was effectively used as a countercyclical macroprudential instrument to address potential systemic risk from a macroeconomic shock. • This option carries relatively limited costs to the banking system and increases the ability of banks to support lending during a crisis.	• Substituting part of the existing capital framework would mean lower minimum capital requirements. • Common equity tier 1 (CET1) capital is required to fund the PCN CCyB, whereas only 50% of the Pillar 2A requirement needs to be funded by CET1 capital.

31 The proposed directive is available here: https://www.resbank.co.za/content/dam/sarb/publications/prudential-authority/pa-documents-issued-for-consultation/2023/proposed-directive---pcn-ccyb/Proposed%20Directive%20PCN%20CCyB.pdf

Option 2: Implement a PCN CCyB as an addition to the existing capital framework.

Table 2: Arguments for and against implementing a PCN CCyB as an addition to the existing capital framework

Arguments for	Arguments against
• Like option 1, this option would enhance flexibility, transparency and predictability of the capital framework and increase the ability of banks to support lending during a crisis. • The additional capital would increase the ability of banks to absorb future credit losses and therefore would increase banking sector resilience. • While the capital adequacy ratios of South African banks have improved during the past 10 years, they have deteriorated relative to other jurisdictions. • Capital adequacy ratios of South African banks are likely to lag other jurisdictions even further as more jurisdictions implement a PCN CCyB, especially if South Africa makes use of the existing capital framework to compensate for the implementation of a PCN CCyB.	• There is a cost of building additional capital. • Credit growth and banking sector capital ratios are correlated, suggesting that increasing banking sector capital requirements may decrease credit extension and have a negative impact on economic activity.[27]

After extensive deliberations at several meetings of the FSC, it was resolved at its October 2023 meeting that a PCN CCyB of 1% would be implemented in South Africa as an addition to the existing capital framework (i.e. option 2). Given the potential impact on the real economy, it was suggested that an increase in the total capital requirement be phased in. It was subsequently agreed that the phase-in period for implementing the 1% PCN CCyB will commence on 1 January 2025 for 12 months, and is to be fully implemented by 31 December 2025.

Results of the 2023/24 Insurance Common Scenario Stress Test

Executive summary

The 2023/24 Insurance Common Scenario Stress Test (ICSST) subjected a set of potentially systemic South African insurers to a selection of severe but plausible shocks and scenarios. The results of the exercise highlight the following outcomes: In the main, the selected insurance firms are adequately capitalised to withstand the shocks and scenarios considered. That said, the industry was moderately susceptible to the impact of unfavourable market movements and deterioration in the credit quality of their counterparties, while non-life insurers are significantly vulnerable to an increase in their claims ratio.

32 Pillay and Makrelov (2024). The lending implications of banks holding excess capital. Available here: https://www.resbank.co.za/content/dam/sarb/publications/working-papers/2024/the-lending-implications-of-banks-holding-excess-capital.pdf

Purpose, scope and methodology

The FSR Act mandates the SARB to protect and enhance financial stability in South Africa by monitoring and assessing any risks to the financial system and making policy recommendations to reduce the vulnerability of the financial system to such risks. Macroprudential stress tests of the financial system are part of the toolkit at the disposal of the SARB to assess the resilience of the financial system.

In the second edition of the 2021 *FSR,*[33] the SARB presented results of an exploratory insurance stress-testing exercise and highlighted the need for more advanced and comprehensive stress tests of the insurance industry. The 2023/24 ICSST is the second macroprudential exercise to be conducted on the South African insurance industry and is an enhancement of the 2020/21 exercise.

The objective of this exercise was to assess the resilience of the insurance industry to adverse but plausible shocks and scenarios and consider any resultant vulnerabilities. While in the previous exercise only single-market and insurance-specific shocks were applied, the 2024 exercise extended the stress test to include comprehensive macroeconomic scenarios, in line with the SARB's ambition to harmonise the insurance stress testing framework with the common scenario stress tests (CSSTs) of banks. The exercise further introduced a climate change add-on under which the non-life insurers were required to assess their vulnerability to historically consistent flood and drought scenarios.

The number of participants was reduced from 19 in the 2021 exercise to nine in the 2024 exercise: five life insurers and four non-life insurers. The life insurers participating in the exercise were Old Mutual Life Company of South Africa, Sanlam Life, Liberty Life, Momentum Metropolitan Life and Hollard Life which together account for roughly 60% of the total assets of the life insurance segment. The non-life insurers, chosen based on gross written premiums, were Santam, GuardRisk, Hollard and Old Mutual Insure, together accounting for more than 49% of total gross written premiums. The number of participants may be reviewed again in future ICSSTs.

Unlike the SARB's banking CSST exercises, this exercise was performed from a bottom-up perspective only. The SARB continues to enhance its stress-testing framework and will investigate the possibility of having a combination of bottom-up and top-down exercises in the future.

The ICSST exercise was restricted to a solvency assessment based on the Insurance Act 18 of 2017 and its Prudential Standards. This approach allows for a common basis for the assessment of the sector's resilience. The exercise focused on key solvency metrics such as excess of assets over liabilities, basic own funds, solvency capital requirement (SCR) and the SCR ratio. Insurers were asked to recalculate their balance sheet and solvency position by employing similar methodologies and models used in standard regulatory reporting, under the scenarios specified below.

33 Available here: https://www.resbank.co.za/en/home/publications/publication-detail-pages/reviews/finstab-review/2021/second-edition-2021-financial-stability-review.

Scenarios

The scenarios for this exercise comprised a suite of single-factor market and underwriting shocks as well as the two adverse inter-temporal macroeconomic scenarios (referred to as Domestic Adverse and Global Adverse). The former mirror the shocks commonly used in the regular reporting but calibrated to generate severe but plausible shocks at two different levels of severity. Table 3 provides a summary of the market and underwriting shocks applied in the current ICSST.

Table 3: Market and underwriting shocks applied in the current ICSST

Applicable insurers	Scenario category	(a) Shocks	(b) Shocks
All	Equity price and volatility	Absolute 15% decline in equity prices	Absolute 40% decline in equity prices
		Relative 50% volatility increase	Relative 100% volatility increase
	Spread and default	One credit quality step (CQS)[33] down for all counterparties + largest bank counterparty default	Three CQS down for all counterparties + largest bank counterparty default
		One CQS down + top 10 non-systemically important financial institution (non-SIFI) counterparties below CQS 12 default	Three CQS down + top 10 non-SIFI counterparties below CQS 12 default
	Nominal yield curve	300 basis points parallel downward shift	500 basis points parallel downward shift
		300 basis points parallel upward shift	500 basis points parallel upward shift
		Relative 50% volatility increase	Relative 100% volatility increase
Mass lapse	Mass lapse	Once-off 10% lapse event for retail book	Once-off 30% lapse event for retail book
		Once-off 20% lapse event for group book	Once-off 50% lapse event for group book
	Mortality	5% relative increase in mortality	10% relative increase in mortality
	Catastrophe	Relative 25% increase in addition to normal mortality rates for 3 months	Relative 100% increase in addition to normal mortality rates for 3 months
Non-life	Claim ratios	10% relative increase in claims ratio	30% relative increase in claims ratio
	Large claims	10% increase in claim amounts	30% increase in claim amounts
	Largest losses	Second largest exposure event occurs	Single largest exposure event occurs

The inter-temporal scenarios were designed to capture the adverse effects on the broader economy. The Domestic Adverse scenario aimed to capture South Africa's idiosyncratic risks, primarily weak economic growth, the energy crisis as well as higher interest rates. In the Global Adverse scenario, shocks emanated from elevated geopolitical polarisation, strong and persistent global inflationary pressures and the deterioration in global sovereign debt sustainability.[35]

34 The CQS forms the basis from which credit ratings are assigned to an insurer's counterparties.

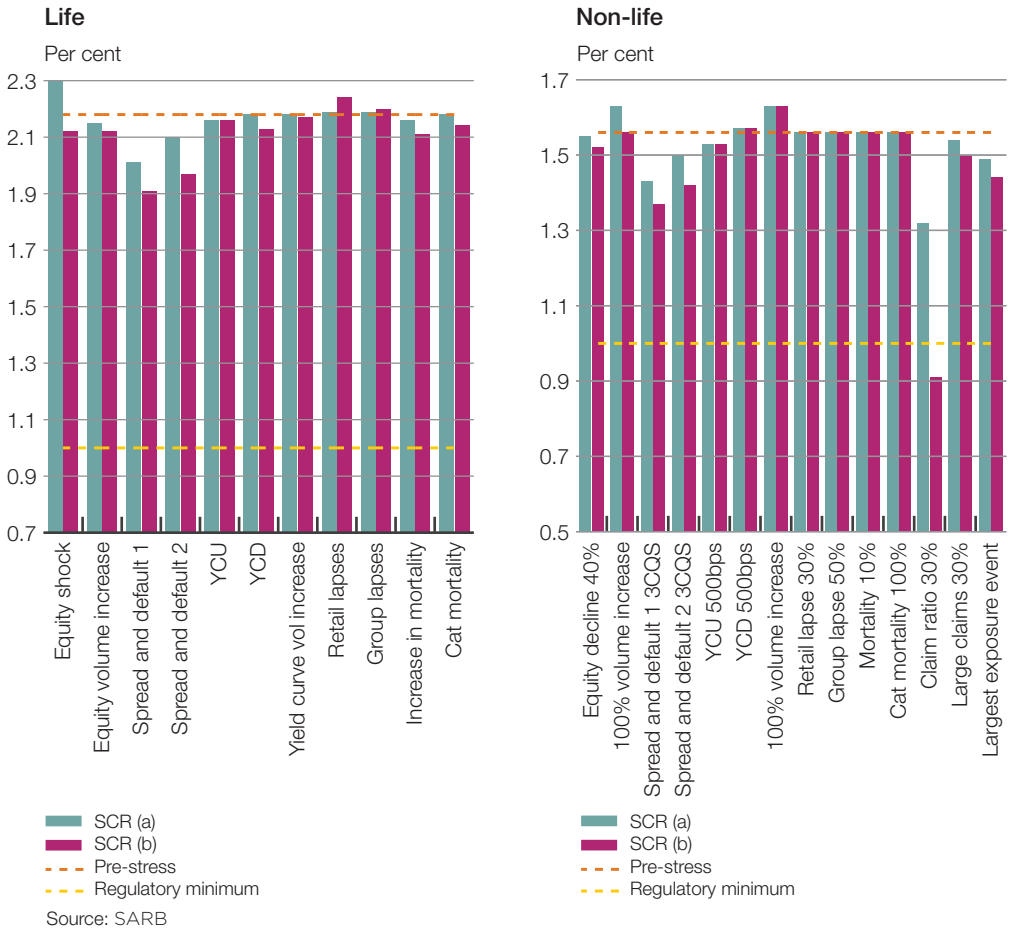
35 The ICSST inter-temporal scenarios were designed to be consistent with the two scenarios used in the 2023 banking CSST. For more details on the inter-temporal scenarios refer to the second edition of the 2023 *FSR* (https://www.resbank.co.za/en/home/publications/publication-detail-pages/reviews/finstab-review/2023/second-edition-2023-financial-stability-review).

Additionally, the ICSST included two climate scenarios focused on the acute physical risk arising from extreme flood and drought. The flood scenario was simulated based on the 2022 KwaZulu-Natal (KZN) floods, while the drought scenario focused on persistent rain shortages similar to the El Niño phenomenon experienced in 2023.

Results

The results show that insurers remain adequately capitalised under most of the single factor shocks. Life insurers appear more resilient to the shocks and have inherently higher levels of SCR ratios than their non-life counterparts. The results indicate that life insurance companies' SCR ratio is relatively more sensitive to market shocks, while the non-life segment is mostly vulnerable to an increase in the claims ratio.

Figure 28: Solvency capital requirement ratio



Source: SARB

The vulnerability of insurers to market shocks emanates from their respective asset compositions. Life insurers' assets comprise mainly of long-term investments, bonds and equities while non-life insurers' assets are predominantly concentrated in cash and fixed income securities. This mainly exposes the industry to single factor spread and default shocks where counterparties' credit quality is assumed to deteriorate. Under the worst spread and default shock the life insurers' SCR ratio decreased from 2.18 to 1.91 while the post-stress aggregate non-life SCR ratio declined to 1.37 from a pre-stress level of 1.56.

Although a 40% decline in equities was considered an extremely severe event for the life insurers given their high exposure to equities, the results show that the insurers did not experience significant impacts on their solvency cover ratio. Under this scenario the solvency ratio declined from a pre-stress level of 2.18 to 2.12. This muted decline was primarily driven by the impact of the equity symmetric adjustment (ESA). The ESA reduces the capital requirement when equity prices decline beyond predetermined thresholds, but increases the capital requirement in a bull market. This reduction in capital requirements in a bear market results in an increase of the SCR ratio, thus ensuring that the capital requirements are not pro-cyclical.[36]

The outcome of this exercise shows that the biggest risk facing non-life insurers is an increase in the claims ratio. Under the 30% increase in the claims ratio, the aggregate solvency cover ratio for non-life insurers falls slightly below the regulatory minimum requirement. Increases in claims ratio force insurers to liquidate some of their assets to meet the increased cash demand. However, it is critical to observe that the minimum capital requirement (MCR) ratios for these entities are well above the regulatory threshold.

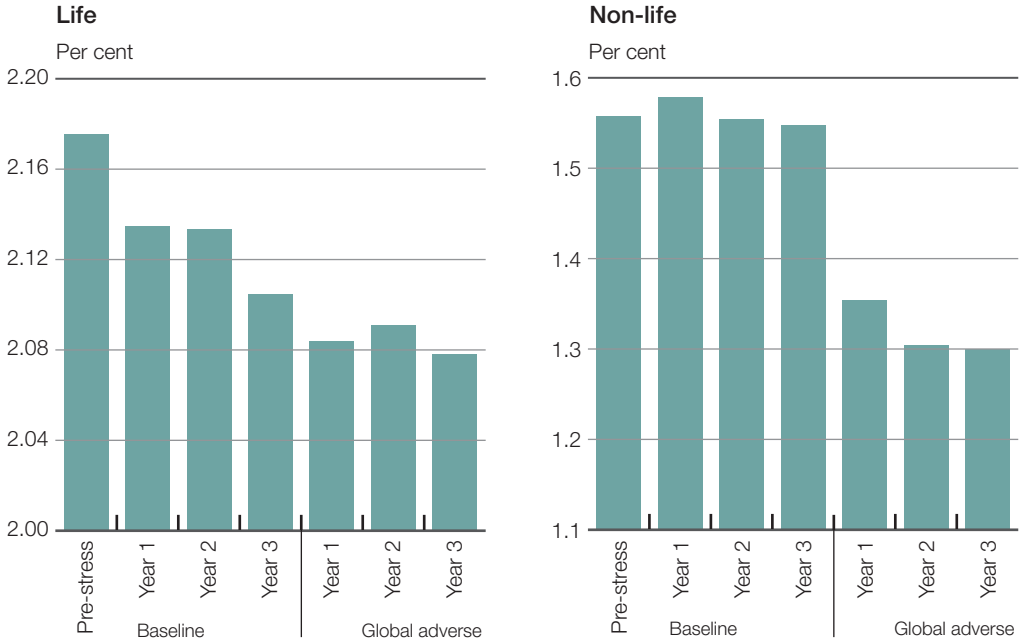
An additional trend worth noting is that the increase under the single factor lapse shocks resulted in an increase in the SCR ratio post-stress. This movement was predominantly driven by a reduction in the MCRs that insurers are required to hold, as policyholder liabilities are removed from their balance sheets under this shock. While from a solvency point of view this result is welcome, it may mask the future loss of premium income that will be experienced in an environment of higher lapses.

Another key component affecting the SCR ratio is the SCR that is required based on the prevailing balance sheet position after the shock. In the ICSST exercise the predominant drivers for the movements in the SCR for life companies were market risk. The market risk SCRs were markedly different for the different shocks. Apart from the spread and default scenario as well as the downward shift in the nominal yield curve, the market risk SCR resulted in a positive impact on the SCR ratio for the life insurers.

For the inter-temporal macroeconomic scenarios, the results show that both life and non-life insurers are resilient to the adverse scenarios. As expected, the Global Adverse scenario had the strongest negative impact on SCR ratios; however, they remain comfortably above regulatory requirements as shown in Figure 29.

36 A pro-cyclical capital requirement would require insurers to retain greater capital after a shock which has already eroded their capital stock, further inhibiting their ability to write new business which amplifies the effect of the shock.

Figure 29: SCR ratios under the inter-temporal macroeconomic scenarios



Source: SARB

For the exploratory climate risk add-on the results highlight a muted impact for the insurers. At worst, the aggregate impact only amounted to a nine basis point reduction in the SCR. These results reflect the impact of natural catastrophe reinsurance which is a key mitigant to the impact of climate change. However, as the frequency and severity of the catastrophic climate change events increase, reinsurers may reduce their appetite for these risks which poses a critical financial stability risk.

Conclusion

Life insurers are relatively resilient to identified stresses, with solvency ratios remaining elevated despite the vulnerability stemming from market risk shocks. However, the robust post-stress SCR ratios for life insurers may mask deterioration in current and future profitability, which in turn may negatively impact own funds. Vulnerabilities also exist in the non-life sector, especially from increases in claims and credit risk.

The climate risk scenarios did not result in a significant adverse capital impact on the participants. However, should the frequency of these catastrophic events continue to increase, protection gaps may become elevated and reduce the ability of the economy to recover from natural disasters.

Abbreviations

ACSA	Airports Company of South Africa Limited
AE	advanced economy
AML/CFT	anti-money laundering and combating the financing of terrorism
BIS	Bank for International Settlements
CAR	capital adequacy ratio
CBOE	Chicago Board Options Exchange
CCB	capital conservation buffer
CCP	central counterparty
CCyB	countercyclical capital buffer
CCST	common scenario stress test
CDS	credit default swap
CET1	common equity tier 1
CODI	Corporation for Deposit Insurance
CPI	consumer price index
CRE	commercial real estate
DBSA	Development Bank of Southern Africa
DIF	Deposit Insurance Fund
EBIT	earnings before interest and taxes
ECDF	empirical cumulative distribution function
EAF	energy availability factor
EM	emerging market
EMDE	emerging market and developing economies
ESA	equity symmetrical adjustment
ESMA	European Securities and Markets Authority
EU	European Union
FATF	Financial Action Task Force
FSCF	Financial Sector Contingency Forum
G7 FX	G7 Foreign Currency Volatility Index
FX	Emerging Market Foreign Currency Volatility Index
FIC	Financial Intelligence Centre
FSB	Financial Stability Board
FSC	Financial Stability Committee
FSCA	Financial Sector Conduct Authority
FSOC	Financial Stability Oversight Committee
FSR	*Financial Stability Review*
FSR Act	Financial Sector Regulation Act 9 of 2017
GDP	gross domestic product
GFECRA	Gold and Foreign Exchange Contingency Reserve Account
GLA	gross loans and advances
GW	gigawatts
HQLA	high-quality liquid assets
ICR	interest coverage ratio
ICSST	Insurance common scenario stress test
IDC	Industrial Development Corporation of South Africa Limited

IMF	International Monetary Fund
IPO	initial public offering
JSE	Johannesburg Stock Exchange
KZN	Kwa-Zulu Natal
LCR	liquidity coverage ratio
MCR	minimum capital requirement
MOVE	Merrill Lynch Option Volatility Estimate
MPR	*Monetary Policy Review*
MTBPS	*Medium Term Budget Policy Statement*
NFC	non-financial corporates
NCR	National Credit Regulator
NERSA	National Energy Regulator of South Africa
NPL	non-performing loan
OFI	other financial institution
ORSA	own risk and solvency assessment
PA	Prudential Authority
PCN	positive cycle neutral
REER	real effective exchange rate
REIT	real estate investment trust
RVM	Risks and Vulnerabilities Matrix
RWA	risk-weighted assets
SAGB	South African government bond
SANRAL	South African National Roads Agency SOC Limited
SARB	South African Reserve Bank
SCR	solvency capital requirement
SIFI	systemically important financial institution
SME	small and medium enterprise
SOE	state-owned enterprise
SSA	sub-Saharan Africa
TCTA	Trans-Caledon Tunnel Authority
UK	United Kingdom
VIX	Volatility Index

Annexure A: Financial stability heatmap

The SARB uses a wide range of financial stability indicators that are designed to act as early warning signals of a potential build-up of cyclical changes in the financial system that could lead to vulnerabilities if left unattended.[37] A 'snapshot' of all material developments is communicated through the financial stability heatmap. The heatmap visually depicts the statistical transformation of a wide range of financial stability indicators against their historical averages. It is data driven and based on historical information, and does not contain any evaluation of financial stability risks. It serves as a communication tool to flag areas for deeper analyses.

Not every indicator used in the construction of the heatmap is discussed in the *FSR*. Rather, the focus is on key global and domestic factors that may be relevant to financial stability risks and vulnerabilities in South Africa. The potential build-up of imbalances as reflected in the heatmap is discussed in detail in the write-up of the key risks and vulnerabilities identified as per the SARB RVM.

37 Both Adrian *et al* (2015) and Aikman *et al* (2017) note that a shortcoming of the framework underpinning the monitoring of financial stability vulnerabilities and the construction of financial stability heatmaps is its focus on cyclical vulnerabilities and not structural and event vulnerabilities.

Figure 30: Financial stability heatmap

Methodology: the heatmap is based on a z-score transformation of the underlying indicators. The transformed indicators are thereafter mapped onto an empirical cumulative distribution function (ECDF). Low values from the ECDF are mapped to green while higher values are mapped to shades of red.

*OFIs: include unit trusts and finance companies.

Source: SARB

The financial stability heatmap is composed by (i) identifying various financial stability elements; and (ii) assigning a weighted colour rating to the identified elements by using predefined indicators. The elements comprising the financial stability heatmap and the corresponding financial stability indicators underlying the colours on the heatmap are presented in Table A.1 below.

Table A.1: South African financial stability heatmap elements and indicators

Component	Indicator	Measure
Risk appetite and asset valuation partition		
Residential real estate	Real house price growth	BIS house price index divided by the consumer price index (CPI)
Equity market	Price-earnings ratio	JSE All-Share price-earnings ratio
	Chicago Board Options Exchange (CBOE) Volatility Index (VIX)	Logarithm of CBOE VIX
Government bond market	South African credit default swap (CDS) spread	CDS spread on South African five-year government bond
	Merrill Lynch Option Volatility Estimate (MOVE)	Logarithm of MOVE
Corporate bond market	Corporate spreads	JP Morgan Corporate Emerging Market Bond Index
Banking sector – risk appetite	Bank lending margin	Weighted average lending rate *minus* weighted average deposit rate
Financial sector partition		
Banking sector	Capital adequacy ratio (CAR)	Capital adequacy divided by total risk-weighted assets (RWA)
	Real credit growth	Real growth in gross loans and advances (GLA)
	Liquidity coverage ratio (LCR)	High-quality liquid asset (HQLA) divided by net cash expected outflows
	Bank maturity mismatches	On-balance sheet maturity mismatches divided by total assets
	Loan-to-deposit ratio	Gross loans and advances divided by deposits *plus* current accounts *plus* other creditors
	Exposure to housing market	Residential mortgages divided by total loans and advances
	Exposure to sovereign sector	Treasury bills *plus* government bonds/total assets
Insurance: life	Liquidity transformation	Illiquid assets divided by total assets
	Leverage	Total financial assets divided by equity
	SCR	Own funds divided by solvency requirement
Insurance: non-life	Liquidity transformation	Illiquid assets divided by total financial assets
	Leverage	Total financial assets divided by equity
	SCR	Own funds divided by solvency requirement

Table A.1: South African financial stability heatmap elements and indicators

Component	Indicator	Measure
Other financial institutions (OFIs)	Credit intermediation	Loans divided by total financial assets
	Liquidity transformation	Liquid assets divided by total financial assets
	Leverage	Total financial assets divided by equity
Sector-wide	SRISK	NYU stern
Non-financial sector partition		
Households	Household debt-service costs	Ratio of debt-service cost to disposable income
	Household debt/disposable income	Household debt to disposable income of household
	Household net saving	Net saving by households
Non-financial corporates (NFCs)	NFC debt-to-net-operating income ratio	Debt divided operating income
	NFC interest coverage ratio (ICR)	Earnings before interest and taxes (EBIT) divided by interest expense
Government	Government debt-to-GDP ratio	Total gross loan debt as percentage of GDP
	Interest-to-revenue ratio	Interest expenditure divided by total revenue
	Primary budget balance	Primary balance as percentage of GDP
External vulnerabilities partition		
Global financial cycle	US financial conditions index	Federal Reserve Board and/or Chicago Fed indices
Capital flows	Net portfolio purchases by non-resident investors	Total net purchases of shares and bonds (repo and outright) by non-residents on the JSE
Real effective exchange rate (REER)	REER	Real effective exchange rate of the rand: Average for the period – 20 trading partners – Trade in manufactured goods

Annexure B: Banking and insurance sector indicators

Table B.1: Banking sector indicators*

	2020	2021	2022	2023	2024
Market share in terms of assets (five largest banks)	89.99	89.84	89.55	89.67	89.72
Gini concentration index	83.11	82.68	82.36	80.28	74.46
Herfindahl-Hirschman Index (H-index)	0.18	0.18	0.18	0.18	0.18
Total assets (R billions)	6 457.27	6 562.26	7 019.68	7 490.56	7 662.46
- Year-on-year percentage change	11.93	1.74	6.96	6.78	4.52
Total loans and advances (R billions)	4 542.46	4 643.13	4 983.97	5 349.91	5 513.31
- Year-on-year percentage change	6.90	2.24	7.33	7.40	4.53
Total capital adequacy ratio	16.21	17.49	17.68	17.36	17.37
Tier 1 capital adequacy ratio	13.14	14.47	14.96	15.01	15.05
Common equity tier 1 capital adequacy ratio	12.33	13.30	13.63	13.43	13.38
Impaired advances (R billions)**	211.91	229.24	226.67	276.77	296.32
Impaired advances to gross loans and advances	4.66	4.94	4.55	5.17	5.37
Specific credit impairments (R billions)	92.25	105.45	109.74	127.15	136.39
Specific credit impairments to impaired advances	43.56	46.07	48.45	45.98	46.03
Specific credit impairments to gross loans and advances	2.03	2.27	2.20	2.38	2.47
Return on assets (smoothed)	0.79	0.81	1.12	1.11	1.09
Return on equity (smoothed)	10.22	10.62	14.26	14.84	14.66
Interest margin to gross income (smoothed)	58.17	58.65	58.77	60.08	60.81
Operating expenses to gross income (smoothed)	58.26	58.73	58.08	56.60	57.06
Liquid assets to total assets (liquid asset ratio)	12.18	13.33	14.02	14.96	14.90
Liquid assets to short-term liabilities	24.05	24.10	25.20	27.45	27.22
Liquidity coverage ratio	142.21	144.12	145.44	150.58	149.36

* Updated as at 15 May 2024. All data are averaged for the year shown. Percentages unless stated otherwise.

** Impaired advances are advances in respect of which a bank has raised a specific impairment and include any advance or restructured credit exposure subject to amended terms, conditions and/or concessions that are not formalised in writing.

*** 2024 is year to date (to March 2024).

Source: PA

Table B.2: Insurance sector indicators

	2018	2019	2020	2021	2022	2023
Market share in terms of assets (five largest life insurers)	73	74	73	73	74	72
Market share in terms of gross written premiums (five largest non-life insurers)	46	48	47	50	49	56
Balance sheet						
Total assets: life insurers (R millions)	3 011 459	3 143 872	3 254 815	3 724 257	3 705 455	4 115 321
Total assets: non-life insurers (R millions)	196 726	206 831	239 132	260 616	290 127	308 317
Total liabilities: life insurers (R millions)	2 638 347	2 760 773	2 909 562	3 343 586	3 353 525	3 734 322
Total liabilities: non-life insurers (R millions)	114 828	117 377	141 422	178 516	170 057	172 212
Profitability						
Gross written premiums: life insurers (R millions)	529 741	551 175	564 327	620 821	631 629	673 360
Net profit before tax and dividends: life insurers (R millions)	45 067	45 373	11 766	48 731	19 848	25488
Individual lapse ratio: life insurers	61.0	91.1	66.0	77.0	76.2	63.9
Gross written premiums: non-life insurers (R millions)	144 265	159 548	158 632	169 846	181 916	105 626
Combined ratio: non-life insurers (%)	97	97	113	119	98	100.6
Operating profit ratio: non-life insurers (%)	15	23	16	-14.4	14	27
Solvency and capital*						
Solvency capital requirement cover ratio (median): life insurers	1.9	2.0	1.9	1.7	1.7	1.9
Minimum capital requirement cover ratio (median): life insurers	4.3	4.2	4.3	4.2	4.7	4.9
Solvency capital requirement cover ratio (median): non-life insurers	1.8	1.8	1.9	1.8	1.5	1.7
Minimum capital requirement cover ratio (median): non-life insurers	3.9	4.0	4.4	3.8	3.7	4.3

* These returns are only available from 2018 due to changes in reporting requirements.

Source: PA

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