FINANCIAL STABILITY REVIEW

First edition

2023

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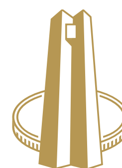

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Background to the *Financial Stability Review*

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 Act 108 of 1996 (Constitution), 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 (i) providing financial products and financial services; and (ii) 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 perform 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 organs 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 the 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 for each edition is the six months following the publication of the previous edition until at least the next 12 months. For this edition, the period under review is from December 2022 to May 2023, while the forecast period is until at least May 2024.

The *FSR* is aimed at all South Africans, although it is principally targeted at the Members of Parliament of South Africa, and specifically the Standing Committee on Finance, through which the SARB is accountable to the people of South Africa. The report is also relevant to a broader readership interested in how the SARB implements its financial stability mandate, including but not limited to participants in the financial sector, international central bank peers, rating agencies, international financial institutions, standard-setting bodies and academia. The *FSR* aims to stimulate debate on pertinent issues of relevance to financial stability in South Africa.

Key terms used in the *FSR*

Drawing largely on the definitions used by the Financial Stability Board (2021), the frequently used terms in the *FSR* are defined as follows:

Systemic risk: The South African Financial Markets Act 19 of 2012 defines systemic risk as "the danger of a failure or disruption to the whole or a significant or substantial part of the [South African] financial system".

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

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

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

Transmission channels or mechanisms: Also referred to as propagation mechanisms, these are the channels through which vulnerabilities may lead to the actual disruption of the financial system, should a shock occur.

Resilience: This refers to the ability of a financial system to deal with shocks and prevent financial instability.

Systemic event: According to the FSR Act, a systemic event means "an event or circumstance, including one that occurs or arises outside 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".

Executive summary

Since the release of the November 2022 edition of the *FSR*, concerns over rapid policy normalisation have materialised, while fears of a global recession continue to linger. Globally, systemic risk increased during the period under review, mainly due to further global monetary policy tightening, persistently high inflation, nervousness about the resilience of the global banking system, volatile financial markets and downward revisions of growth projections, both for major economies and South Africa.

In South Africa, idiosyncratic factors continued to weigh on domestic financial sector resilience and overall economic growth prospects. The most notable country-specific vulnerability is the increasingly detrimental and widespread ramifications of an insufficient and unreliable electricity supply, while concerns over the deteriorating South African rail and port infrastructure networks also continue to grow.

The diplomatic fallout resulting from the comments by the US Ambassador to South Africa on 11 May 2023[1] led to a sharp sell-off in the South African rand and its worst-ever level against the US dollar, trading at R19.51 to the US dollar on 12 May 2023. South Africa's non-aligned stance in the war between Russia and Ukraine is increasingly being questioned, which may pose a future threat to the participation of South African financial institutions in the global financial system and increases the likelihood of secondary sanctions being imposed on South Africa as discussed in this edition of the *FSR*.

The Financial Action Task Force (FATF) greylisting has materialised, with a relatively muted immediate reaction as expectations had largely been priced into financial markets. However, the longer-term impact remains a vulnerability and will depend on the speed and effectiveness with which South Africa can address the findings that led to the greylisting.

South Africa has one of the highest ratios of state-owned enterprise (SOE) debt among emerging markets. While Eskom remains the largest contributor to SOE debt, the debt burden of several other SOEs continues to weigh on the fiscus. Growing incidences of government taking over SOE debt increase the state's debt burden, in turn further increasing the domestic financial sector's exposure to government debt as the bulk of new issuances of government debt is being taken up by domestic investors.

As evidenced by the failure of Silicon Valley Bank (SVB) and the ensuing turmoil faced by US regional banks, a high level of exposure to government debt by financial institutions represents a potential vulnerability. Although there are various channels through which high exposure to government debt can lead to financial instability, SVB's failure illustrates that if financial institutions are forced to sell material amounts of government bonds to raise liquidity, the realisation of valuation losses could cause an institution to fail.

Domestically, despite an increasingly adverse operating environment, the prudentially regulated financial sector remained resilient as measured by institutions' aggregate ability to maintain adequate capital and liquidity buffers to absorb the impact of shocks. The South African financial system continued to function without interruption despite the global banking sector turmoil. However, even slower and more inequitable domestic economic growth will likely test this resilience beyond the forecast period.

1 Watch: US Ambassador to South Africa, Reuben Brigety, addresses the media in Pretoria. https://www.youtube.com/watch?v=48H5qqj6Lds

The SARB undertook the following initiatives and policy actions to enhance financial stability:

- **The SARB continued to collaborate with FSOC members to address some of the key risks to financial stability,** in particular on the way forward following South Africa's greylisting by the FATF and the financial stability implications should secondary sanctions be imposed on South Africa.
- **The SARB's FSC maintained the countercyclical capital buffer (CCyB) at 0% at its April 2023 meeting.** In line with ongoing work by the Bank for International Settlements (BIS) on the CCyB, the SARB is assessing the appropriate neutral level for the CCyB for South Africa.
- **Work continued on the implementation of the resolution and deposit insurance frameworks.** Most notably, the Financial Sector Laws Amendment Act 23 of 2021 (FSLAA) commencement schedule was published by the Minister of Finance on 24 March 2023. In terms of this schedule, the Corporation for Deposit Insurance (CODI) became a legal entity on 24 March 2023, but it will only be fully operational from 1 April 2024. The SARB will become the Resolution Authority for designated institutions on 1 June 2023, on which date the resolution framework also becomes effective.
- **The SARB, through the Financial Sector Contingency Forum (FSCF),[2] continued to plan for the improbable but not impossible scenario of a national electricity grid shutdown.** In line with the role and function of the FSCF, 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.
- **The FSC continues to assess whether concerns over the sovereign-bank nexus require policy intervention.** The Prudential Authority (PA) began introducing measures to manage interest rate risk in the banking book to support bank-based assessments of risk relating to assets such as government bonds. Although the FSC did not take any further steps regarding policy action to directly address the sovereign-bank nexus at its meeting in April 2023, developments continue to be monitored closely.

Chapter 1 provides an overview of global developments and considers the implications for financial stability in South Africa. Chapter 2 outlines the domestic financial stability conjuncture based on developments over the review period, considers the outlook for domestic financial stability and provides the SARB's assessment of prevailing financial stability conditions. Discussions in Chapter 2 are primarily based on a sectoral overview and the SARB Risk and Vulnerability Matrix (RVM). Chapter 3 focuses on a selection of topical deep dives and potential emerging risks to domestic financial stability. The topics covered in this edition of the *FSR* include the financial stability implications of an insufficient and unreliable electricity supply; an update on developments related to the establishment of a deposit insurance fund; an update on the implementation of the resolution framework; the financial stability implications should secondary sanctions be imposed on South Africa; and the failure of SVB and the resulting scrutiny of different accounting treatments for banks' government bond holdings.

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2 The FSCF is a statutory forum established in terms of the FSR Act. It assists the FSOC with identifying and mitigating risks that could threaten the stability of the financial system. For more information, refer to the recent media statement by the SARB on the role of the FSCF: https://www.resbank.co.za/content/dam/sarb/publications/media-releases/2023/fscf-21-feb/SARB%20statement%20on%20the%20role%20of%20the%20Financial%20Sector%20Contingency%20Forum.pdf.

Chapter 1: Overview

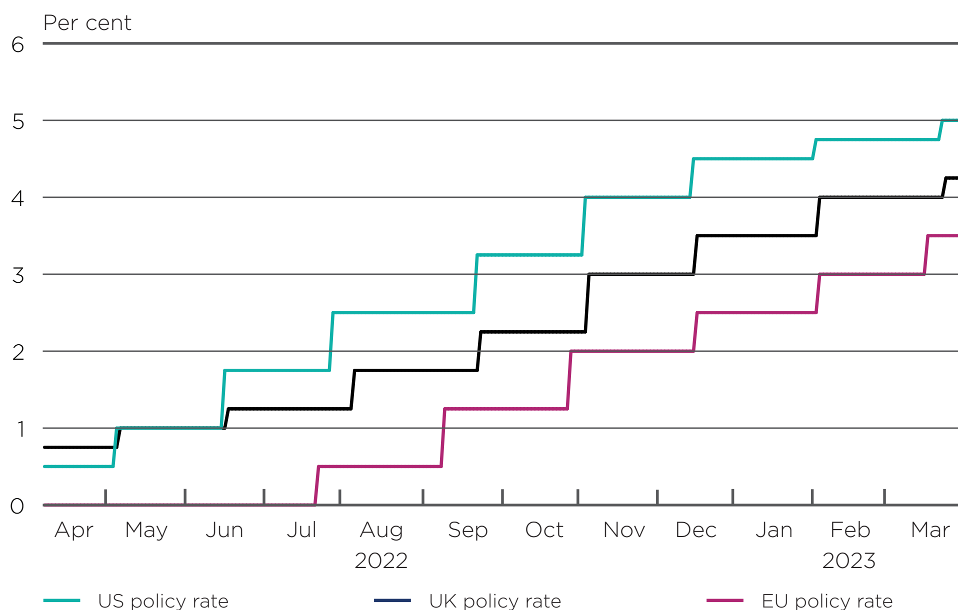
Introduction

This chapter identifies and assesses the risks to global financial stability through the ongoing monitoring of domestic and external vulnerabilities and considers their possible implications for financial stability in South Africa.

International developments

The widely anticipated interest rate increases by central banks in both advanced and emerging economies communicated in the November 2022 *FSR* materialised during the period under review (Figure 1). In some instances, interest rate increases exceeded expectations, causing financial conditions to tighten further as inflation remained persistently high. Between November 2022 and March 2023, the United States (US), European Union (EU) and United Kingdom (UK) increased rates by 175 basis points, 150 basis points and 200 basis points respectively. Since the rate-hiking cycles began in March 2022, the US Federal Reserve (Fed) has increased its policy rate by 475 basis points, and both the European Central Bank (ECB) and the Bank of England (BoE) by 400 basis points (up to the end of March 2023).

Figure 1: Selected advanced economy central bank policy rates*



* The US Fed sets its target rate – the federal funds rate – as a range between an upper and lower limit. The federal funds rate target range was 4.75% to 5% in April 2023.

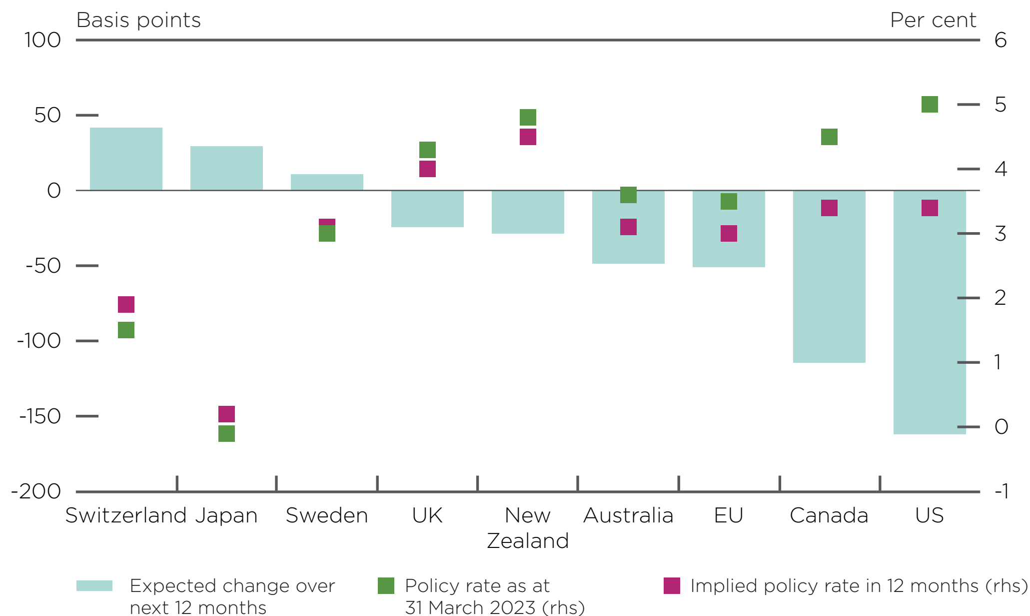
Source: SARB

At the time of publication of the November 2022 *FSR*, market participants were confident that most advanced economies[3] (AEs) were nearing the end of their rate-hiking cycles, and they started to price in interest rate cuts from April 2023 (Figure 2). However, confidence receded as growth concerns surfaced and the stability of the banking sectors in both the US and Europe became a concern in March 2023. Following the banking sector stress and

3 US, eurozone, UK, Switzerland, Sweden, Australia, New Zealand, Japan and Canada.

concerns over the US debt ceiling,[4] global financial conditions are expected to continue to tighten, pushing out the expected peak of interest rates in AEs from the first to the second half of 2023. Banking sector stress in AEs and steeper-than-expected monetary policy tightening have raised the risk of a global recession occurring over the next 12 months.

Figure 2: Expected change in selected advanced economy policy rates over the next 12 months



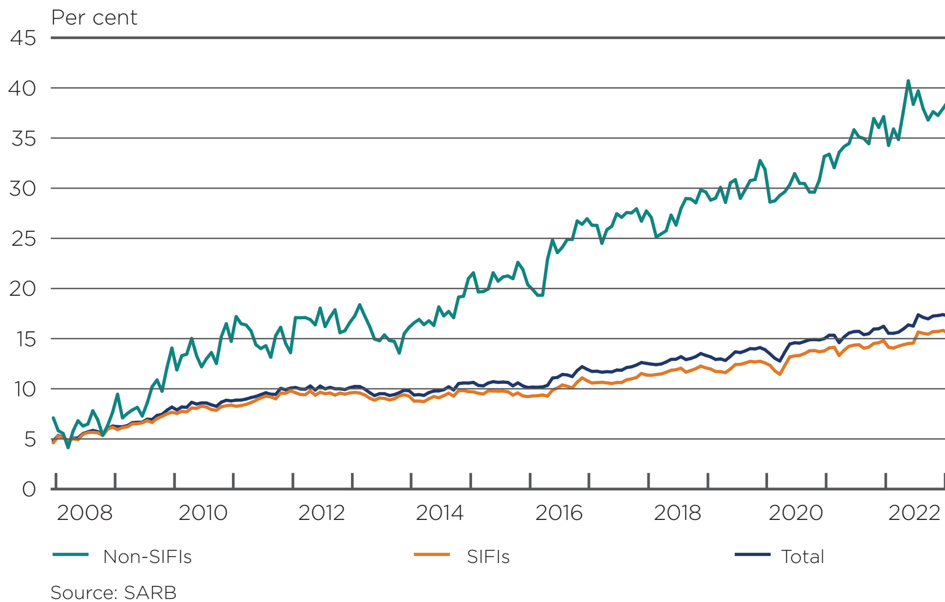
Source: Bloomberg

Concerns over the resilience of the global banking sector were prompted by the collapse of several regional banks in the US, mostly notably SVB, combined with the takeover of Credit Suisse by UBS. Sustained geopolitical tensions also contributed to heightened uncertainty and financial market volatility over the review period. Bank share prices, particularly in AEs, declined sharply in the immediate aftermath of the global banking sector stress, which may affect the price and availability of bank credit. Although authorities managed to contain the immediate impact of the turmoil in the US banking sector following the failure of SVB and Signature Bank in March 2023, some concerns remain over the resilience of the US banking system following the failure of First Republic Bank and its subsequent takeover by JPMorgan Chase on 1 May 2023.

The concentrated exposure of South African banks to the government is a vulnerability that has been highlighted for some time. Although a mitigating factor domestically is that banks with the largest proportion of South African government bond (SAGB) holdings relative to their total assets are not systemically important (Figure 3), the failure of SVB serves as a reminder that non-systemic banks could cause systemic risk if several banks have a common exposure that could lead to a widespread loss of confidence.

4 US government debt hit the current debt ceiling of $31.381 trillion on 19 January 2023, which means that the government cannot legally borrow additional funds until the debt ceiling has been raised. The US Treasury Department has warned that the US government could default on its debt as soon as 1 June 2023 if a resolution to the political stalemate over increasing the US debt ceiling is not reached before then.

Figure 3: SAGBs as a share of South African banks' total assets



Source: SARB

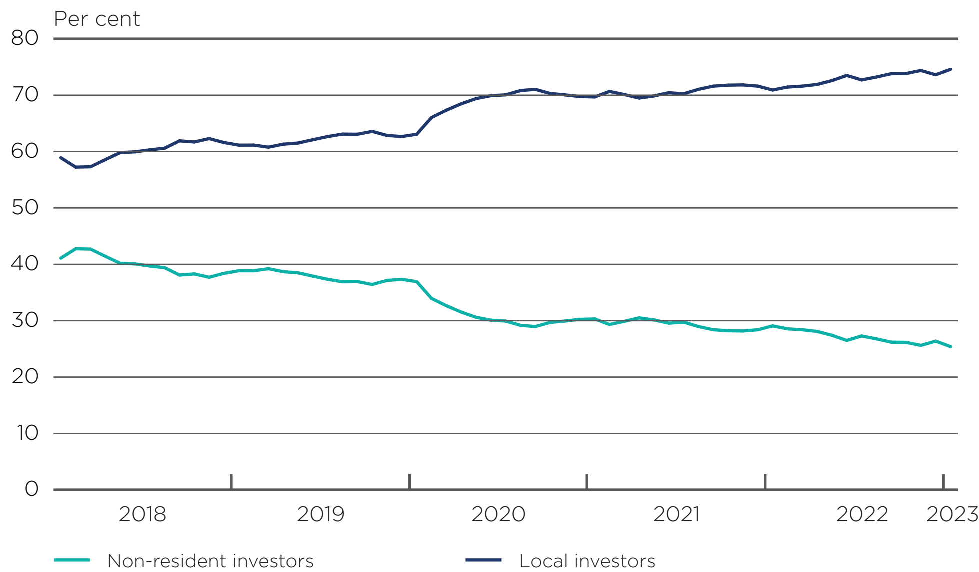
The SARB continues to monitor the high and increasing exposure of the domestic financial sector to government debt, which is regarded as a vulnerability because of the combined impact of South Africa's sub-investment credit rating, risks to fiscal consolidation, increasing interconnectedness and concentration, and the loss of diversification on the balance sheets of financial institutions. The sovereign-bank nexus was discussed in detail in the May 2021 *FSR* and joint work between the PA and the SARB is underway on the topic.

As discussed in greater detail in Chapter 2, one of the new risks added to the SARB RVM is that of 'capital outflows and declining market depth and liquidity'. In part, this vulnerability relates to the sovereign-bank nexus, as increased holdings of government bonds by domestic financial institutions that largely follow buy-and-hold investment strategies, combined with lower participation by foreign investors, contribute to the declining liquidity in the SAGB market. While deep and diversified markets can act as shock absorbers, price discovery and the ability to raise liquidity in the event of an adverse shock can be severely compromised in undiversified and shallow markets. This could, in turn, trigger further rapid deleveraging, asset value depreciation and collateral calls, which could threaten broader market functioning and, ultimately, financial stability.[5]

The risks posed by declining market depth and liquidity are further exacerbated by growing fiscal risk, weak demand for new issuances of SAGBs by non-resident investors and South Africa's idiosyncratic risk factors (e.g. high levels of load-shedding and the greylisting by the FATF). The proportion of SAGBs held by local investors increased to 75% in February 2023, compared to 58% in April 2018 (Figure 4).

5 Liquidity in the SAGB market was discussed in the May 2022 edition of the *FSR*, available at https://www.resbank.co.za/content/dam/sarb/publications/reviews/finstab-review/2022/financial-stability-review/first-edition-2022-financial-stability-review/FSR%20May%202022%201st%20edition.pdf

Figure 4: Breakdown of SAGB holdings by local and non-resident investors

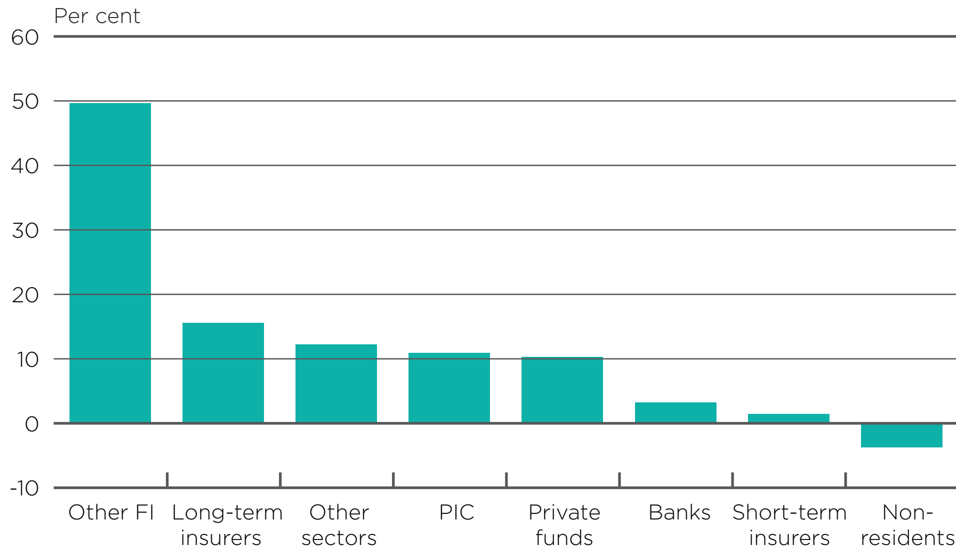


Source: SARB

This is a significant structural shift, especially considering the significant increase in government bonds issued during this period. It raises concerns about the capacity of South African investors to continue absorbing new issuances of SAGBs in future. As local participants increasingly step in to absorb the declining appetite for new SAGB issuances by non-residents, this raises financial stability concerns regarding market liquidity, increased volatility and higher domestic government bond yields. South Africa's non-investment grade status and recent greylisting by the FATF could contribute to non-resident sell-offs from local markets, with non-resident investor behaviour becoming increasingly speculative in relation to South African assets.

The US banking sector turmoil prompted reflection on potentially adverse sovereign-bank feedback loops. However, this risk is not limited to banks. Domestically, non-bank domestic investors are increasing their holdings of SAGBs by even larger amounts. Domestic unit trusts accumulated almost half of the R73.26 billion worth of SAGBs issued during the period under review, while pension funds absorbed 21% and long-term insurers 10% (Figure 5).

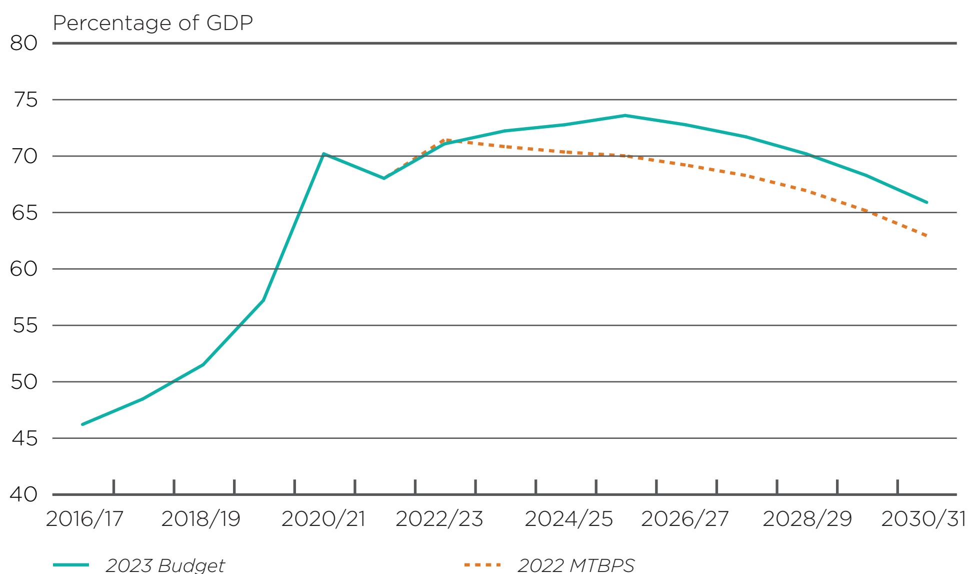
Figure 5: Accumulation of SAGBs since the previous *FSR*



Source: SARB

Public debt ratios worsened globally as a result of currency depreciation and tighter financial conditions, with the International Monetary Fund (IMF) projecting a moderation in emerging markets' debt-to-GDP ratios – the metric comparing a country's public debt to its gross domestic product (GDP) – to approximately 60% by 2025. Domestically, National Treasury estimates that the gross loan debt of the South African government will reach a relatively higher peak of 73.6% of GDP in the 2025/26 fiscal year[6] (Figure 6), mainly as a result of the debt relief to Eskom and other SOEs. South Africa's SOE debt constitutes more than 80% of total non-financial corporate (NFC) debt – the highest among its emerging market peers (Figure 7).

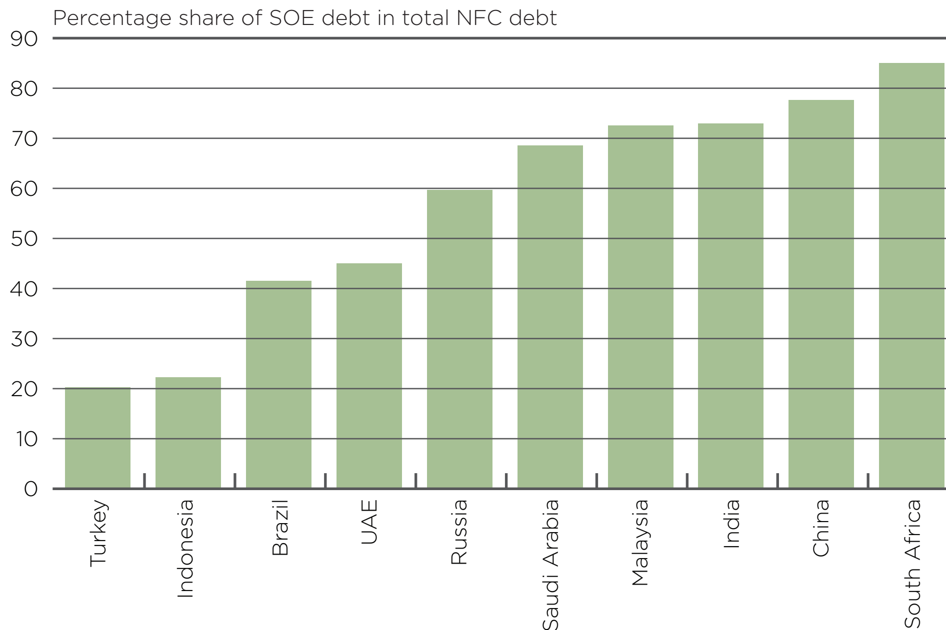
Figure 6: Outlook for gross government debt to GDP



Source: National Treasury

6 https://www.treasury.gov.za/documents/National%20Budget/2023/review/FullBR.pdf

Figure 7: SOE debt in selected emerging markets in 2022



Notes: Based on EM firms listed on domestic exchanges, 12 months trailing
Source: IIF

Domestic developments and indicators of financial stability

Global developments had a marked spillover effect on South Africa during the review period. However, it was domestic idiosyncratic factors that contributed most to the increase in systemic risk during the review period. Sustained high levels of load-shedding continue to weigh heavily on domestic economic growth prospects. South Africa's ongoing electricity generation challenges continued to negatively impact the productivity and profitability of businesses, and may negatively impact the viability of some businesses, especially small- and medium-sized enterprises (SMEs). The effects of an insufficient and unreliable electricity supply on financial stability are considered in the SARB RVM in Chapter 2, and one of the topical focus areas included in Chapter 3 is dedicated to the ongoing challenges posed by this constraint.

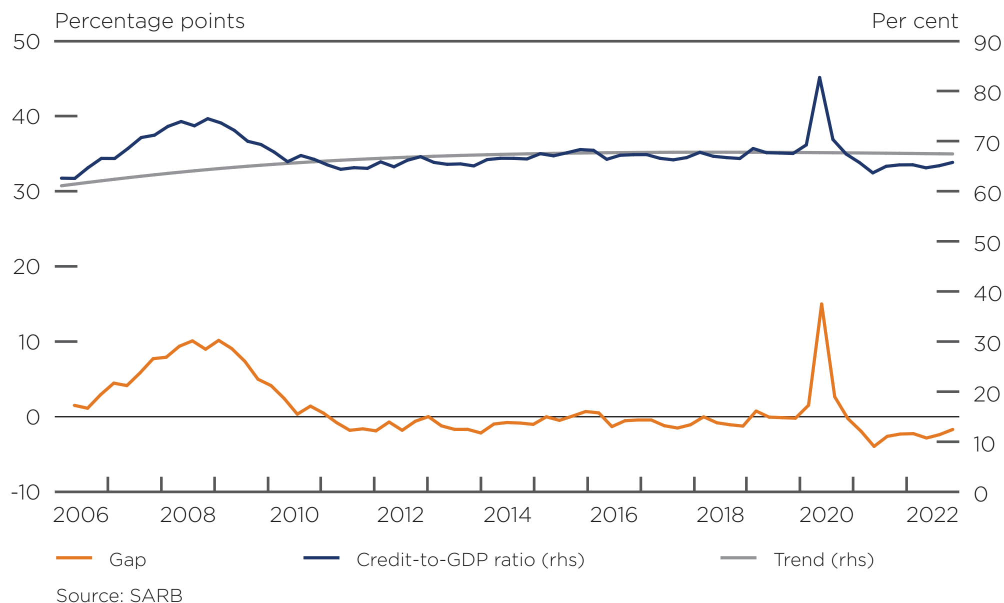
South Africa's greylisting by the FATF was announced on 24 February 2023. Although the immediate impact had been largely priced in, there are medium to longer-term financial stability risks that may materialise should South Africa remain on the FATF greylist for an extended period. The risks associated with South Africa's greylisting, and as communicated in the May 2022 and November 2022 editions of the *FSR*, will remain pertinent for as long as South Africa remains on the greylist, and are likely to intensify if remedial actions are not implemented in time for the next FATF assessment in 2025. A related risk that emerged during the period under review is the possible imposition of secondary sanctions on South Africa which, coupled with the FATF greylisting, could lead to financial instability in South Africa. The remarks by the US Ambassador to South Africa on 11 May 2023[7] led to a sharp sell-off in the South African rand and its worst-ever level against the US dollar, trading at R19.51 to the US dollar on 12 May 2023. This risk is discussed in detail in Chapter 3.

7 Watch: US Ambassador to South Africa, Reuben Brigety, addresses the media in Pretoria. https://www.youtube.com/watch?v=48H5qqj6Lds

Banks' level of impaired advances as a proportion of total loans and advances is above its long-term averages. However, increasing profitability and higher regulatory capital suggest that the banking sector remains resilient. Banks' credit growth is largely due to increased lending to corporates (particularly in the specialised lending portfolios), households (mostly in the form of residential mortgages) and to the sovereign. The increase in impaired advances is attributable to banks extending relatively more credit in a broadly weakening macroeconomic environment associated with very low growth, and tightening financial conditions which weigh on debt-servicing capacity.

In South Africa, the gap between the nominal growth rates of bank credit and GDP (i.e. the credit-to-GDP gap) narrowed in the second half of 2022. The narrowing credit-to-GDP gap reflects an acceleration in unsecured credit for households and corporates as well as negative GDP growth in the fourth quarter of 2022 (Figure 8).

Figure 8: South Africa's credit-to-GDP gap



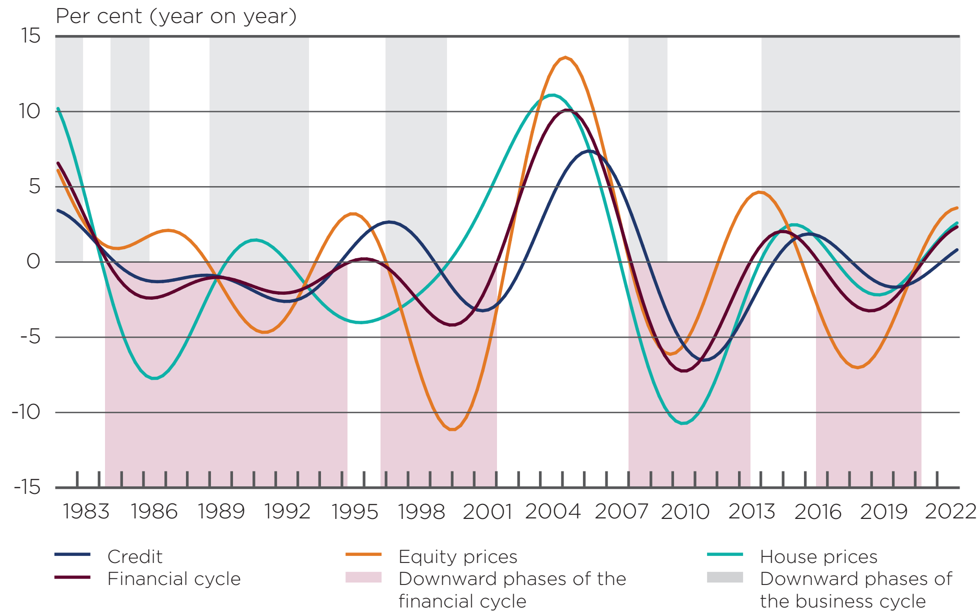
Source: SARB

Domestically, interest rate increases continued. The SARB raised interest rates by a further 50 basis points at its May 2023 Monetary Policy Committee (MPC) meeting,[8] which raises expectations that financial conditions will tighten further in the short to medium term.

Despite tighter financial conditions, the financial cycle remains in an upward phase as credit extension, equity prices and house prices rise (Figure 9). Credit growth, particularly for unsecured credit, remains elevated for both households and corporates, which is partly attributable to the rising cost of living and soaring input cost for corporates due to longer and more frequent stages of load-shedding, among other factors.

8 This brings the cumulative interest rate hike to 475 basis points from November 2021 to May 2023.

Figure 9: The South African financial cycle



Source: SARB

Chapter 2: Domestic financial stability conjuncture, outlook and assessment

Against the broader context provided in Chapter 1, this chapter discusses (i) the SARB's assessment of the current domestic financial stability conjuncture based on developments over the review period; and (ii) the outlook for domestic financial stability. The assessment and outlook are discussed primarily based on a sectoral overview and the SARB RVM. The chapter concludes with an overview of the policy actions undertaken by the SARB to enhance domestic financial stability.

Financial markets

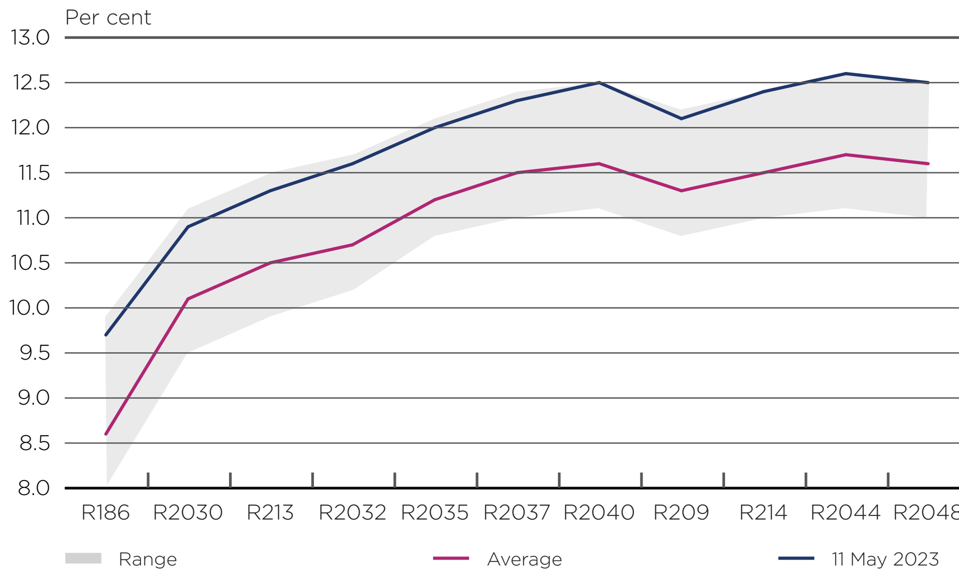
In contrast to the average emerging market foreign currency basket, which appreciated by 3.5% against the US dollar (USD) since the November 2022 *FSR*, the South African rand's (ZAR) value relative to the USD decreased by over 8.0% over the same period. The ZAR was the third-worst performer in a sample of 24 emerging market currencies versus the USD, behind the Argentinian peso and the Russian ruble. The 200-day moving average (dma) of the value of the ZAR is currently at its weakest level on record (Figure 10). Despite expectations of a broadly weaker USD in 2023, a number of idiosyncratic factors are likely to keep the ZAR and local currency assets under pressure – and potentially undervalued – over the medium term. These factors include ongoing load-shedding and its impact on economic growth, increasing geopolitical risk and South Africa's stance on international developments, concerns about possible shortfalls in government revenue and a credit outlook downgrade by rating agency Standard & Poor's.

Figure 10: Rand performance against the USD since 2019

Source: Bloomberg

The SAGB yield curve fluctuated in a relatively wide band during the period under review (Figure 11). The prospect of the state president resigning in December 2022 contributed to high market volatility, but bond yields recovered as political uncertainty waned and inflation outcomes continued to trend lower. South Africa's greylisting had no material effect on the SAGB yield curve, suggesting the event had been broadly anticipated and priced in prior to the actual announcement.

Figure 11: The SAGB yield curve (November 2022 – April 2023)



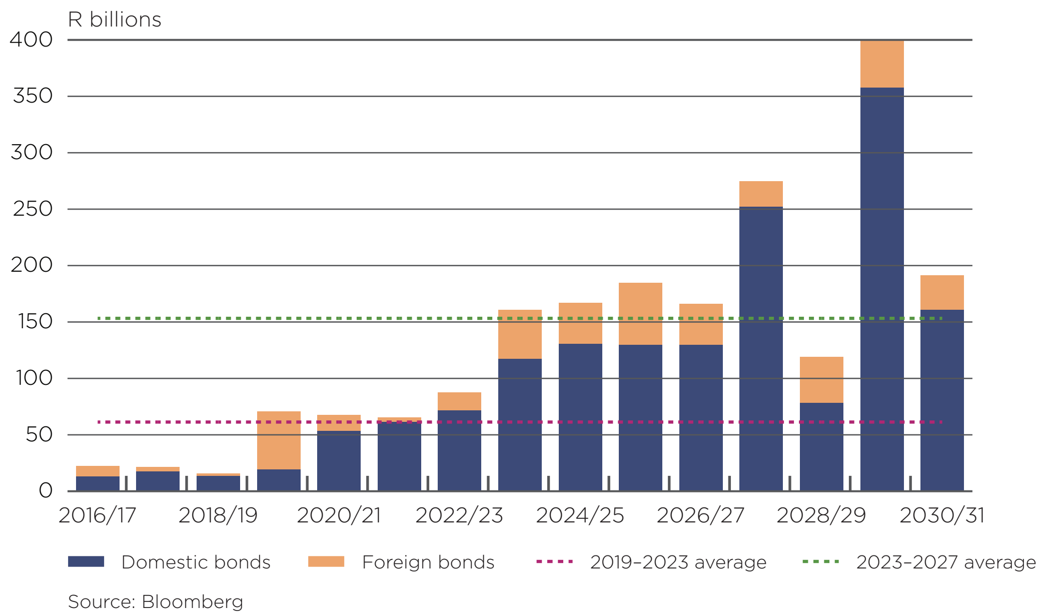
Source: Bloomberg

There has been a significant steepening of the SAGB yield curve since the last *FSR*. The spread between medium-term bonds (R2031, R2032 and R2035) and longer-term bonds (R2040, R2041, R2044 and R2048)[9] is around 100 basis points.

The steepening of the SAGB curve reflects investor concerns about the fiscal risks that may emanate from above-inflation wage settlements, weakening domestic growth prospects, lower revenues due to lower commodity prices and export volumes, and contingent liabilities in the form of implicit and explicit guarantees for SOEs. In addition to the possible risks to the fiscus, net redemptions of marketable government debt (both foreign currency and ZAR-denominated) are estimated at around R1.7 trillion over the next seven years (Figure 12). This highlights the elevated refinancing risk faced by the government in the next couple of years as maturing government debt may possibly have to be refinanced at higher interest rates.

9 The difference between medium-term bonds (R2031, R2032 and R2035) and longer-term bonds (R2040, R2041, R2044 and R2048)

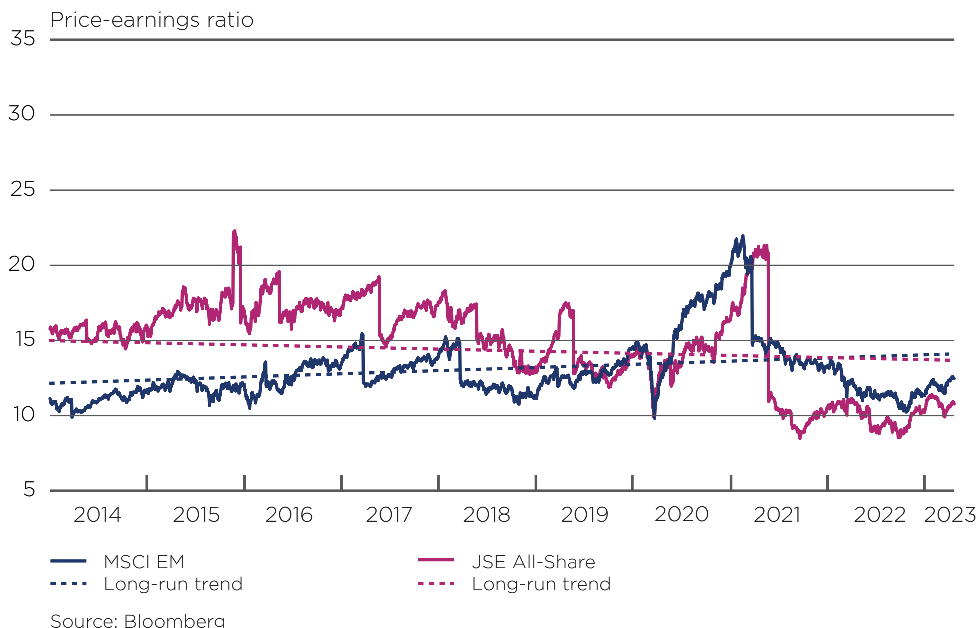
Figure 12: Maturity profile of marketable South African longer-term debt



Source: Bloomberg

In line with international developments, the JSE All-Share Index has gained 16.18% since the release of the November 2022 *FSR*, largely supported by gold and rand-hedged shares. Despite this increase, shares on the JSE are still trading at decade-low valuations as forward price-earnings (P/E) ratios remain well below their long-term average (Figure 13). This is largely attributable to South Africa's poor growth outlook.

Figure 13: Equity market valuation



Source: Bloomberg

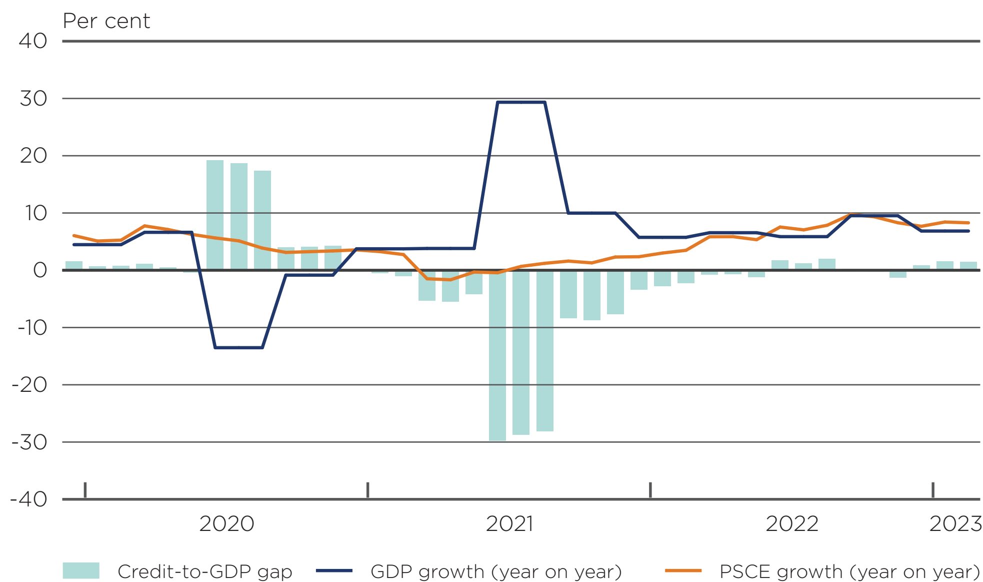
The banking sector turmoil in the US and Europe had a relatively muted impact on emerging market bank share prices, including in South Africa, as emerging market banks generally have relatively less exposure to interest rate risk and a higher proportion of retail deposits, which are regarded as more stable.[10]

10 Refer to the IMF's April 2023 *Global Financial Stability Report* for a more detailed discussion. Available at https://www.imf.org/-/media/Files/Publications/GFSR/2023/April/English/text.ashx.

Banking sector

Banking sector credit risk remains elevated as banks continue to extend credit at a faster pace than economic growth. Both the bank credit-to-GDP and assets-to-GDP ratios show that banks are extending more credit in an environment of weakening economic growth (Figure 14). This credit growth is observed in increased lending to corporates (particularly in the specialised lending portfolios), households (mostly residential mortgages) and to the sovereign. Sustained periods of credit growth exceeding economic growth have been associated with the build-up of systemic risk and, as a result, this trend will continue to be closely monitored. One of the policy tools developed by the Basel Committee on Banking Supervision (BCBS) to mitigate this risk is the CCyB.[11] Although the SARB's FSC kept the CCyB rate at 0% at its April 2023 meeting, there is growing empirical evidence internationally that a neutral level for the CCyB should be above zero for it to be an effective countercyclical policy tool that can be released when the banking sector faces headwinds. The FSC is monitoring global and domestic developments to inform the most appropriate neutral level for the CCyB in South Africa.

Figure 14: Growth in private sector credit extension versus nominal GDP growth



Sources: PA and SARB

The banking sector's leverage has increased marginally as indicated by the equity ratio, which is calculated as total banking sector assets as a percentage of equity. Increasing leverage is considered an indicator of vulnerability as it suggests that the banking sector may have lower buffers to withstand a shock. The slight increase in the equity ratio was largely due to the growth in bank assets outpacing the growth in equity over the review period. However, it is encouraging that bank equity has increased as interest income increased following a number of consecutive policy rate increases, which contributed to higher retained earnings for banks.

11 For a detailed discussion of the CCyB, see https://www.bis.org/bcbs/ccyb/. The South African credit-to-GDP gap forecast (refer to Figure 8 in Chapter 1) suggests the gap will breach the 2% CCyB activation level in 2025.

The South African banking sector remains highly reliant on short-term wholesale sources to fund longer-term loans and advances. Reliance on wholesale funding was recognised as a vulnerability for banks following an analysis of the causes of the global financial crisis.[12] The South African banking sector continued to source most of its funding from wholesale sources, with only 27% of sector-wide deposits coming from retail sources. However, funding from South African financial corporate customers is considered more stable compared to other jurisdictions because there were various regulatory and economic barriers preventing liquidity from exiting the domestic financial system.[13]

The loan-to-deposit ratio stood at 89% at the end of February 2023. This ratio, which expresses the value of total bank loans to total deposits, is well below the long-term average of 94% and the 100% level above which it is seen to present a risk to financial stability. Higher loan-to-deposit ratios imply greater maturity transformation and potential vulnerabilities to liquidity risks in the banking system. A lower ratio could suggest the inefficient use of funding (e.g. not using deposit funding for lending), and the relatively lower ratio in South Africa may indicate that banks are using part of their funding to buy government bonds, rather than for lending.

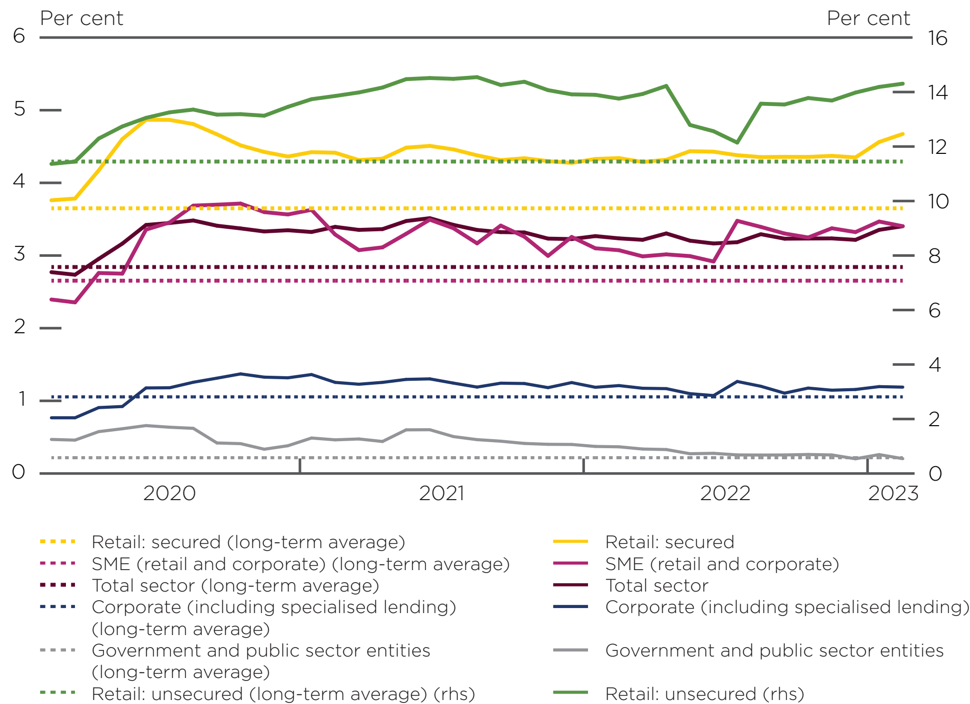
The banking sector's exposure to the sovereign remained high during the period under review, while its exposure to households remained below its long-term average. The banking sector's ratio of residential mortgages as a share of gross loans and advances indicates the level of concentration in banks' exposures to the residential mortgage market. Systemic risk from a number of previous financial crises has arisen from exuberant credit extension and asset growth in the residential housing market. However, this risk indicator is currently muted in South Africa.

The sector's non-performing loan (NPL) ratios, which are indicative of the quality of a bank's outstanding loans, have been trending upwards, with most retail and corporate asset class NPL ratios being above their longer-term trends (Figure 15). NPLs are calculated as all loans overdue for more than 90 days as a percentage of on-balance-sheet exposure. This increasing credit risk is mitigated by the increasing profitability of the banking sector as well as the higher regulatory capital and provisions the sector is holding.

12 See, for example, G Lopez-Espinosa, A Moreno, A Rubia and L Valderrama, 'Short-term wholesale funding and systemic risk: a global CoVaR approach', *IMF Working Paper 12/46*, 1 February 2012.

13 Refer to paragraph 2.1.2.4 of Banks Act Directive 8/2017.

Figure 15: Current NPL ratios versus long-term average NPL ratios* for major lending categories



* Long-term average: average since January 2014

Source: PA

Non-systemic banks tend to be more vulnerable to periods of increasing economic stress. This is attributable to their focus on smaller customers, because they tend to have less diversified product lines or tend to focus on specific sectors of the economy. Two non-systemic banks were placed under curatorship in the past 12 months, namely Ubank on 16 May 2022[14] and Habib Overseas Bank on 27 March 2023.[15] Both banks had been in a weak financial state for some time and suffered from weak governance and risk management prior to them being placed under curatorship. The stability of the South African banking system was not affected by these developments.

Non-bank financial institutions

Globally, higher debt levels have been accompanied by growth in assets held by non-bank financial institutions (NBFIs) since the 2008 global financial crisis. South Africa has experienced similar growth in NBFI assets over the past ten years.

Different types of NBFIs (e.g. insurers, pension funds and asset managers) are structured in different ways, and a vulnerability in one type of NBFI is not necessarily a vulnerability in another. However, slow economic growth and high debt levels amid rising interest rates present a common risk to all NBFIs. NBFIs such as money market funds (MMFs) or real estate funds could be susceptible to runs during periods of distress because their assets are typically longer term, while their liabilities (i.e. fund shares) are redeemable on demand. Runs, in turn, could lead to fire sales of assets that could trigger

14 Refer to https://www.resbank.co.za/content/dam/sarb/publications/media-releases/2022/ubank-limited-/Ubank%20Limited%20Statement%20by%20Governor%20Kganyago%20incl%20biography%20of%20curator%20.pdf

15 Refer to https://www.resbank.co.za/en/home/publications/publication-detail-pages/media-releases/2023/Announcement-on-the-curatorship-of-Habib-Overseas-Bank-Limited

broad-based valuation losses, liquidity stresses and decreases in asset prices.[16] In such circumstances, NBFIs could be forced to make large withdrawals from their bank deposits, giving rise to contagion risk in the banking sector.

MMFs and the banking sector are highly interconnected, which impacts on the extent to which vulnerabilities at MMFs pose a systemic risk either directly through borrowing and lending, or indirectly through financial market activities and the corresponding impact on asset prices. Liquidity stress in MMFs can give rise to liquidity pressure on individual banks, which could then easily spill over into other sectors of the financial system.

NBFIs' aggregate percentage holdings of government debt are more than double that of banks, representing 52.1% of total NBFI assets at the end of February 2023. These large holdings expose NBFIs to the risk of material valuation losses and, especially during periods of lower bond market liquidity, a possible inability to raise sufficient liquidity in the event of sovereign distress.

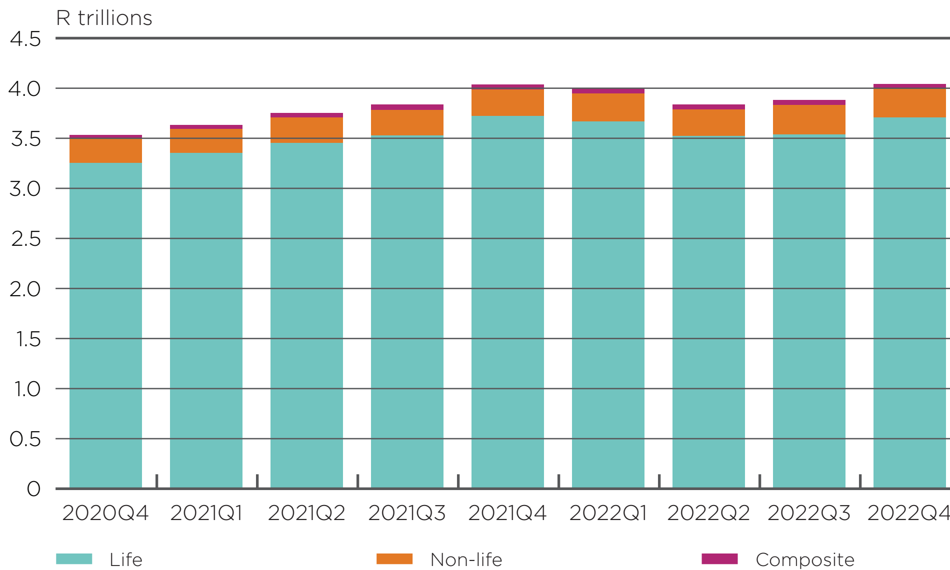
Insurance sector

Insurers exhibited resilience despite low growth, high inflation and rising interest rates. Despite challenging macroeconomic conditions, the total gross written premiums of life and non-life insurers increased by 17.6% and 12.5% respectively at the end of the fourth quarter of 2022. Although the increase comes from a relatively low base, it is also partially attributable to built-in inflationary increases for life insurance products. For the non-life segment, the increase may also reflect higher re-insurance premiums being passed on to consumers. Despite the robust growth in gross written premiums, persistently high inflation may dampen future demand for life insurance products as higher inflation erodes the value of fixed future payouts. Similarly, in the non-life segment, inflation pushes up the value of claims and, as a result, underwriting costs. Nevertheless, both the life and non-life insurance segments posted positive net profit before tax and dividends.

The insurance industry's total assets reached just over R4 trillion during the review period, exceeding its pre-pandemic level of R3.5 trillion (Figure 16). In line with their business models, life insurers must have sufficient assets to cover their long-term liabilities. As a result, life insurers' assets accounted for almost 90% of the sector's total assets as at the end of December 2022. Life insurers' asset composition is skewed towards investment funds and equities, representing a degree of asset concentration risk. Life insurers face significant market risk in the event of volatility and decreases in asset prices, which may negatively affect their largest source of income.

16 See the Financial Stability Board (FSB) paper on 'Leverage in non-bank financial intermediation (2023)' for a detailed discussion.

Figure 16: Total insurance assets

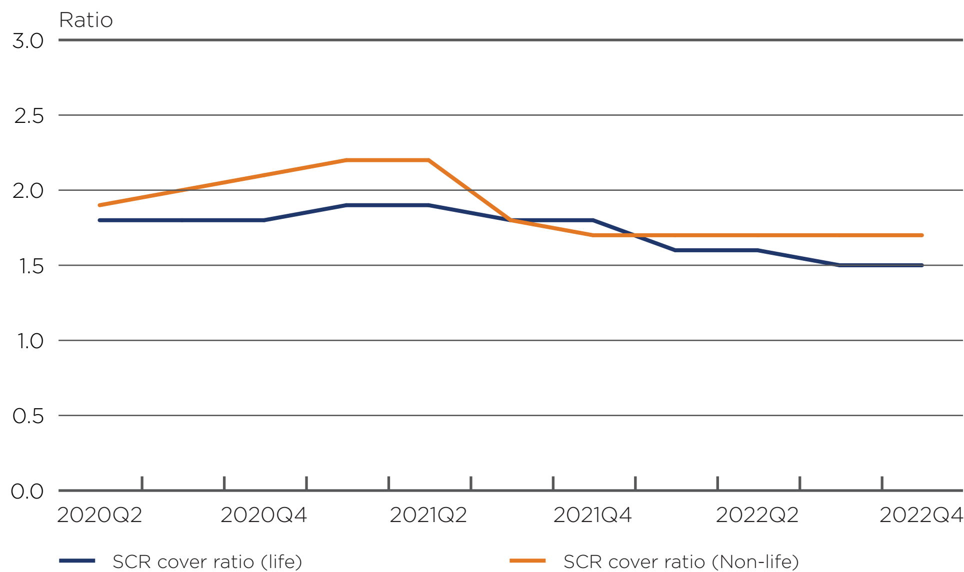


Source: PA

Uninsurable risks are on the rise. Non-life insurance is designed to provide protection against high-impact, low-probability risks faced by policyholders. However, as some risks become systemic and occur too regularly, they become either too expensive for the consumer or economically unviable for the insurer to insure. Insurance companies also find it increasingly difficult to manage their risk through re-insurance. Examples of risks that are becoming too frequent to be insurable are damage due to riots and certain natural catastrophe events. Although being an unlikely event, many insurers are no longer insuring against the risk of a complete electricity grid collapse, adding to the uninsurable risk pool.

Despite the challenging macroeconomic environment, the insurance sector remained adequately capitalised. The solvency capital requirement (SCR), the main regulatory requirement, for both life and non-life insurers maintained adequate SCR cover ratios, with the ratios for both remaining comfortably above the requirement of 1 on an aggregate basis (Figure 17).

Figure 17: Solvency capital requirement cover ratios of life and non-life insurers



Source: PA

Collective investment schemes

Collective investment schemes' (CIS) assets under management (AUM) grew to R3.14 trillion, up from R3.01 trillion in the third quarter of 2022. The increase in AUM was driven by inflows (consisting of both dividends and new investments) of R19.7 billion in the fourth quarter of 2022.[17]

Retirement funds

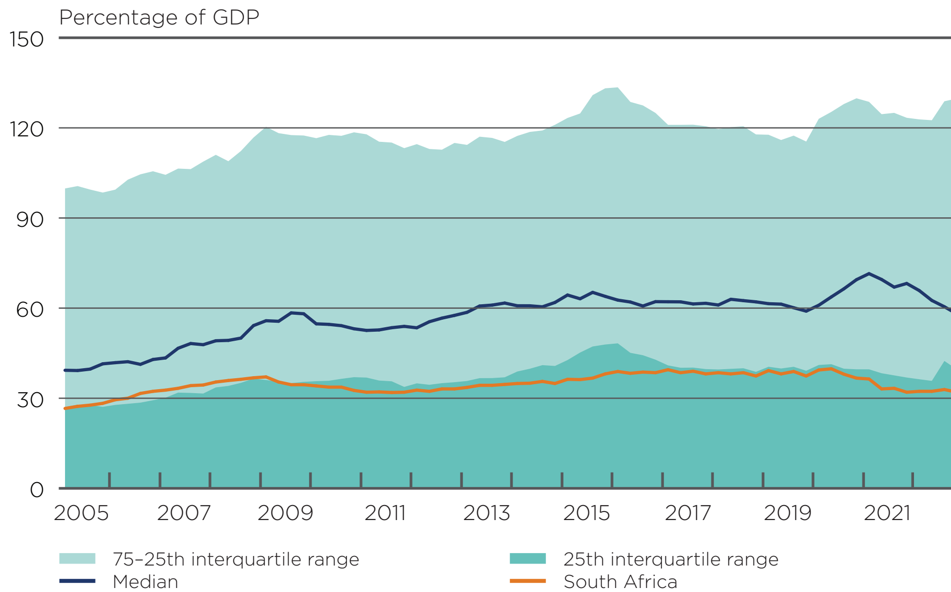
The proposed amendments to the retirement fund system, commonly referred to as the 'two-pot' system in terms of which individuals would have unilateral pre-retirement access to a portion of their retirement assets, were announced in February 2021. Although the proposed amendments are due to be implemented on 1 March 2024, National Treasury has indicated that any remaining uncertainty would be clarified in forthcoming legislation. As a result of the proposed two-pot system, investment strategies and investment mandates are expected to be revised, and the liquidity needs of retirement funds are likely to increase. Investment portfolios are expected to undergo a gradual shift in their asset allocation, with environmental, social and governance (ESG) and private equity investments potentially being the biggest casualties, given their inherently longer investment horizons and illiquidity. Funds engaging in the provisioning of housing loans and housing loan guarantees will need to manage credit risk for amounts outstanding at the implementation date. As a result, good governance by funds' boards will be integral in ensuring stability in the sector.

17 For more detail, see https://www.asisa.org.za/media-releases/local-cis-assets-under-management-recover-to-previous-highs/

Non-financial corporates

The domestic NFC debt-to-GDP ratio declined marginally to 32% in the fourth quarter of 2022 from 32.9% in the previous quarter, comparing favourably against the emerging market median (Figure 18) and reflecting muted growth in financial imbalances in the South African NFC sector.

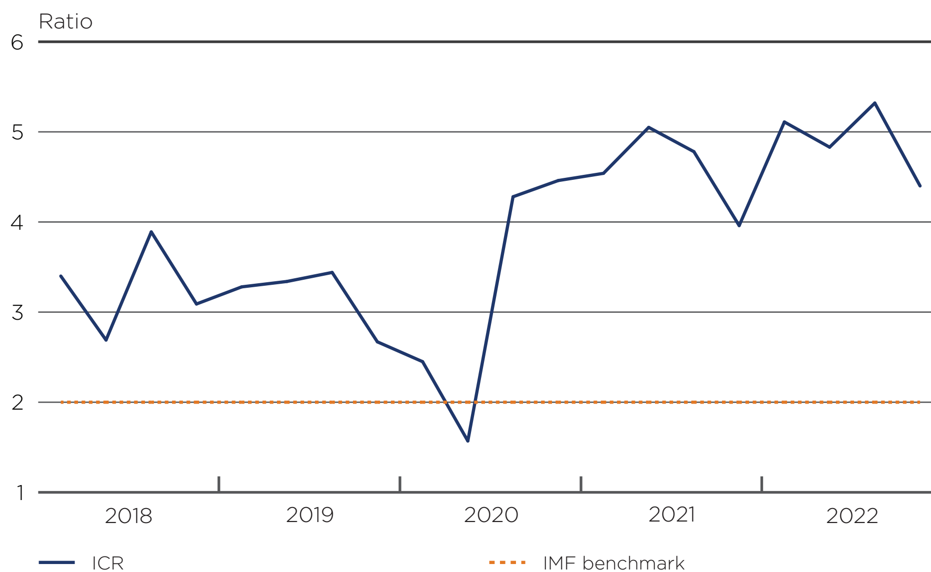
Figure 18: Emerging markets NFCs' debt-to-GDP ratio



Source: IIF

Tighter credit conditions coupled with declining margins may erode NFCs' cash buffers accumulated during the pandemic. In line with global developments and coupled with higher interest rates which weighed on corporate earnings, NFCs' total interest coverage ratio (ICR) declined notably in the fourth quarter of 2022 to 4.4 from 5.3 in the third quarter of 2022 (Figure 19). The ICR remains above the IMF benchmark of 2. Going forward, increasing expectations of a sharp global slowdown interacting with local idiosyncratic factors may further erode domestic NFCs' ICR.

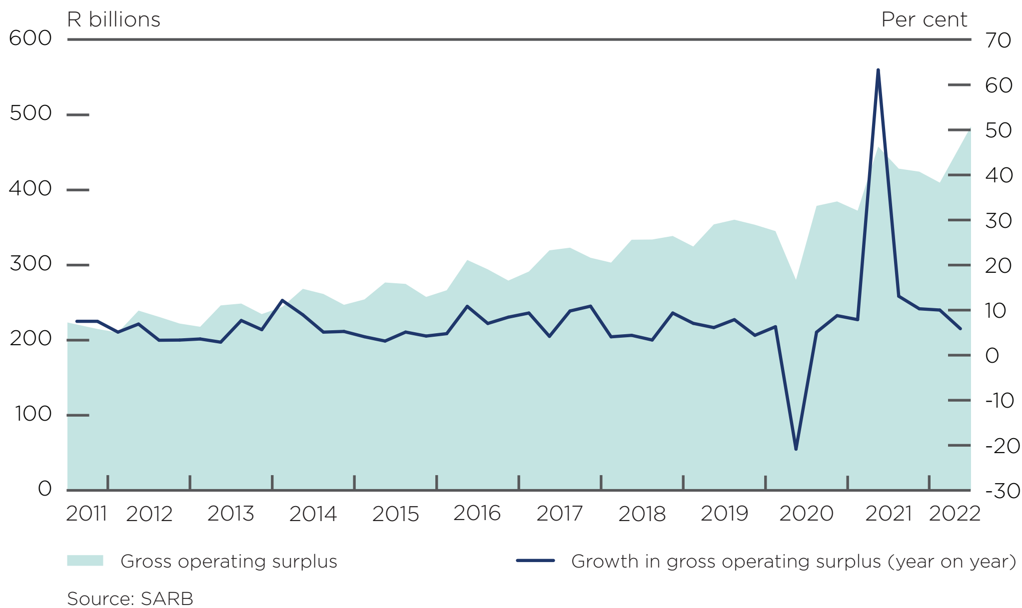
Figure 19: ICR for NFCs



Sources: SARB and Stats SA

Eskom's ongoing power supply constraints continued to negatively impact the productivity and profitability of businesses (Figure 20), and may threaten the viability of some businesses, especially SMEs. Domestic business confidence continues to slip as business conditions soured in the wake of higher stages of load-shedding. Similarly, a deteriorating rail infrastructure could place added pressure on companies relying on exports if their goods cannot be transported to harbours in a timely manner.

Figure 20: Gross operating surplus for NFCs



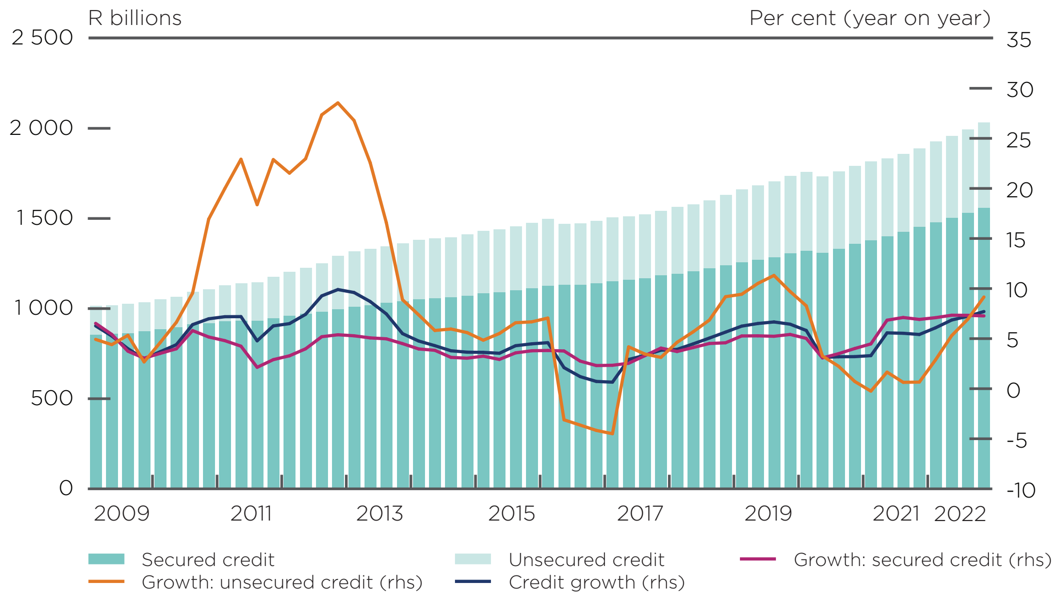
Source: SARB

Household sector

Household finances remain under severe pressure due to rising interest rates, load-shedding, high unemployment, weak real income growth and high inflation. These developments have prompted households to utilise their savings buffers, thereby further weakening the sector's ability to withstand future shocks.

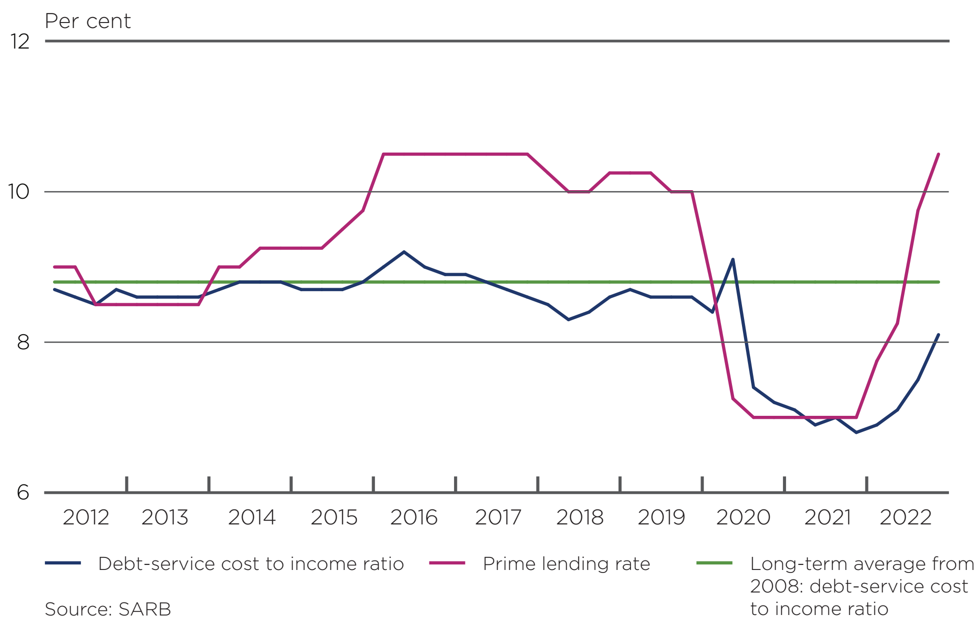
Despite rising interest rates, households' demand for unsecured credit is increasing. During the fourth quarter of 2022 unsecured credit grew at its fastest pace since 2019, registering a 9% year-on-year increase, which could be a sign of distressed borrowing. Total credit extended to households grew by 7.7% in the fourth quarter of 2022 (Figure 21), while debt-servicing costs as a percentage of household income increased to 8.1% in the last quarter of 2022, up from 6.8% a year earlier but below its long-term average (Figure 22).

Figure 21: Credit extended to households



Source: SARB

Figure 22: Debt-servicing costs as a percentage of household income

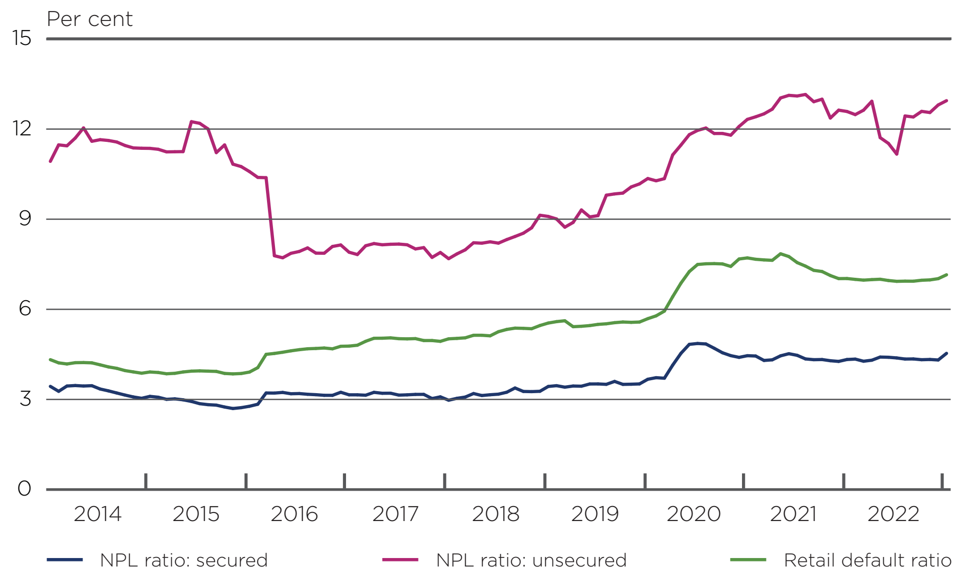


Source: SARB

The continued rise in credit extension, coupled with stretched household finances, adversely affected banks' credit quality (Figure 23). The NPL ratio[18] for unsecured credit in particular has trended upwards since 2019, recording 12.9% in January 2023. This deserves close monitoring given the higher probability of defaults for unsecured credit compared to secured credit. This ratio will likely increase as increasing mortgage and vehicle asset finance debt-servicing costs take their toll on households, particularly for first-time buyers who purchased during the low COVID-19 interest rate environment. Pressure on household income, increasing unsecured lending to households and higher debt-servicing costs will continue to increase vulnerabilities in the sector.

18 The NPL ratio is the ratio of the value of household NPLs to total outstanding household loans.

Figure 23: Retail non-performing loans



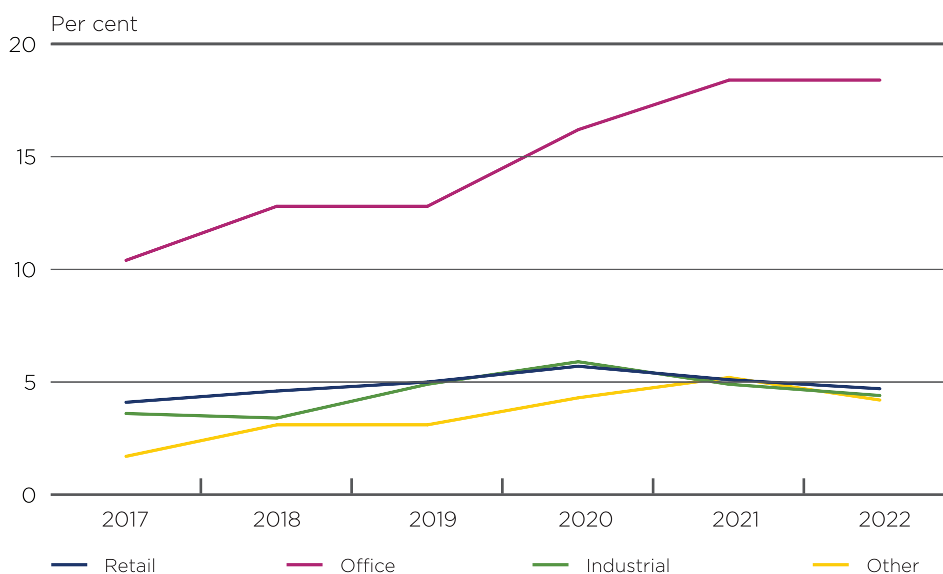
Sources: PA and SARB

Real estate

Commercial real estate

Despite the challenges faced by the commercial real estate (CRE) sector during the period under review, some improvement in the vacancy rates across the office, retail, industrial and 'other' property segments were observed. However, the vacancy rate for office buildings remains high at 18.4%, reflecting reduced demand due to hybrid working models (Figure 24). In addition, higher-than-inflation increases in property taxes, electricity and operating costs continue to put pressure on the CRE sector.

Figure 24: CRE vacancy rates



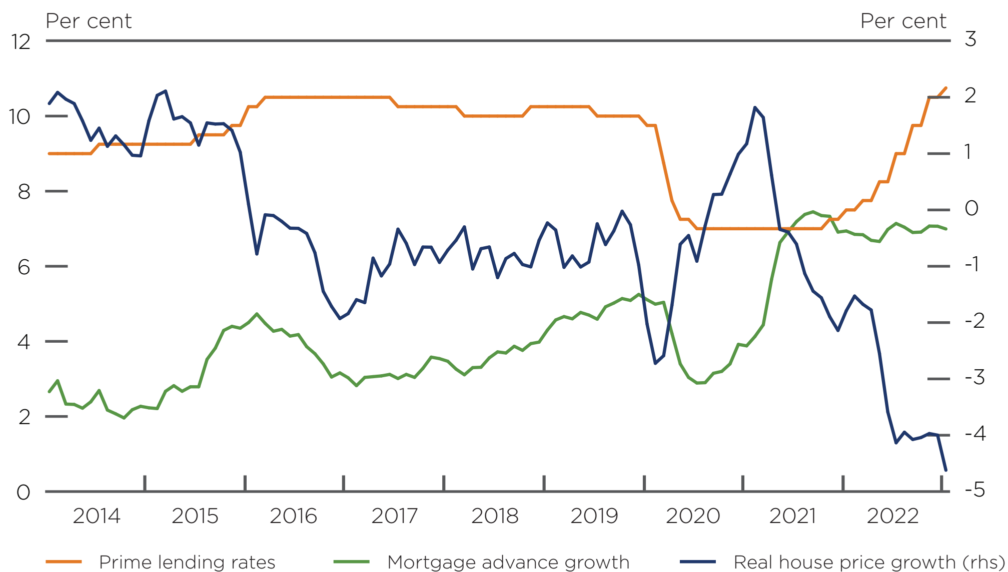
Source: MSCI

Sustained pressure on the CRE sector could lead to downward pressure on property values, with resultant negative spillover effects to banks and other NBFIs, particularly those with significant exposures to CRE.

Residential real estate

Real house prices continued to decline as inflationary pressures persist and higher interest rates reduce affordability. Nominal growth in mortgage advances remained almost unchanged at 7.0% between August 2022 and January 2023 (Figure 25). It is expected that higher interest rates will discourage home-buying activity and continue to dampen house price growth.

Figure 25: Real house prices, mortgage advances growth and prime lending rates



Sources: BIS, Stats SA and SARB

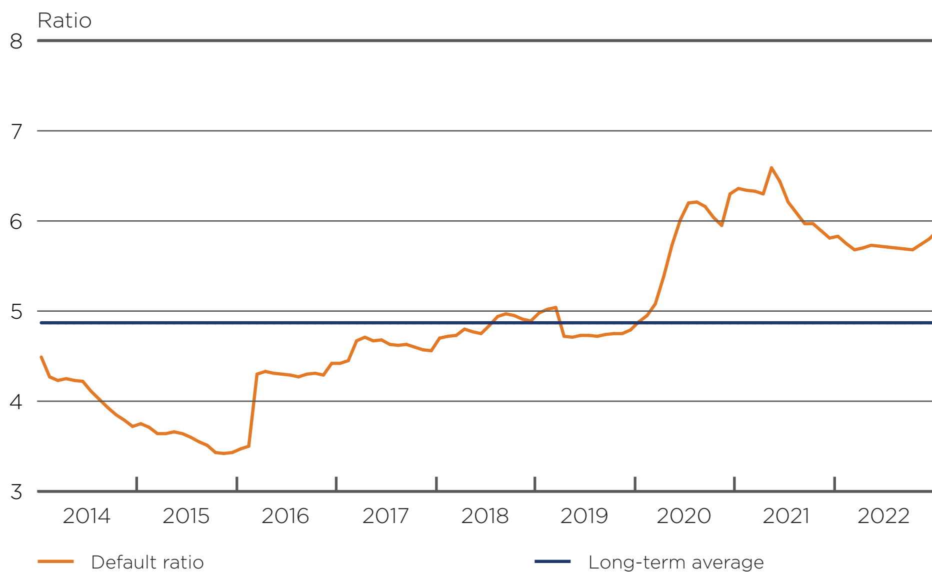
Higher borrowing costs make it difficult for households to own homes and thus they prefer renting over buying. The national residential rental vacancy rate declined from 11.71% in the fourth quarter of 2021 to 8.61% a year later (Figure 26). Further highlighting the recovery in the rental market is the consistent upward trend in rental prices.

Figure 26: Rental prices and vacancy rates

Source: TPN

Residential mortgages constitute approximately 17% of banking sector assets and thus a sharp decline in residential property prices, coupled with high borrowing costs, would pose a significant risk to the banking sector. Residential mortgage defaults trended above their long-term average in 2022 (and have done so since 2020) as households face higher debt-servicing costs amid the rising cost of living (Figure 27).

Figure 27: Residential mortgage default rates

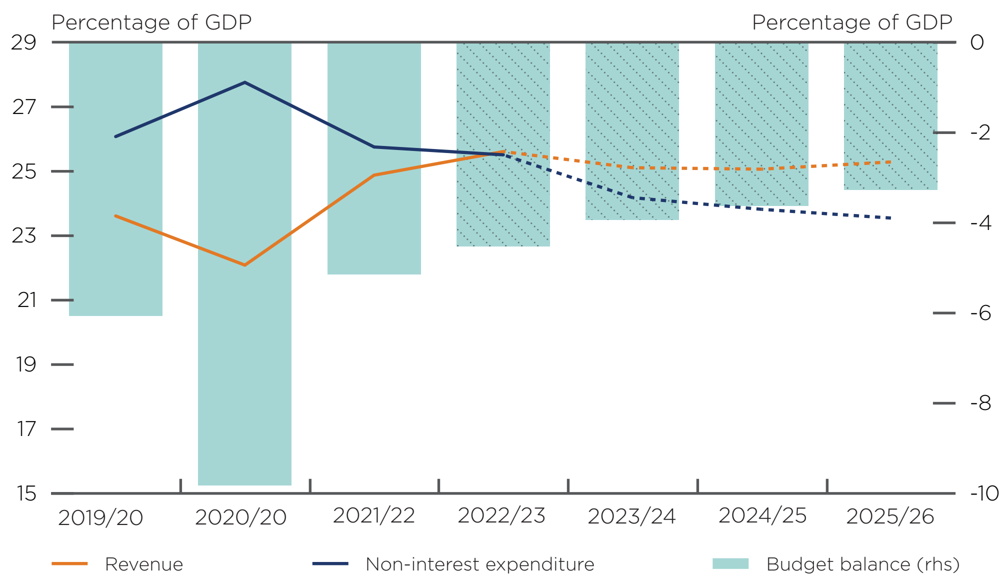


Source: PA

Government finances

The 2023 *Budget Review* revised the expected national government revenue higher by R3.7 billion to R1 759 billion for the 2023/24 fiscal year, compared with the 2022 *Medium Term Budget Policy Statement (MTBPS)*. Total budgeted national government expenditure was revised higher by R7.0 billion to R2 035 billion for the 2023/24 fiscal year (Figure 28). Risks to the economic outlook and pressure from the public wage bill may increase government's borrowing requirements.

Figure 28: Government revenue, expenditure and budget balance



Source: National Treasury

Outlook for financial stability

The SARB RVM provides a forward-looking assessment of the key risks to financial stability in South Africa over the short, medium and longer term, after taking into consideration mitigating factors.[19] The key risks are identified based on the current conjuncture but also take into account possible future developments and the vulnerability of the financial system to such developments, after considering existing mitigating factors and policy actions. The colour of the block (Figure 29) shows how severe the impact each risk on the financial sector is expected to be, should it materialise. Risks with a lower residual vulnerability are the ones where the financial system is relatively well-placed to absorb a shock without a broader spillover of distress across the system. Risks with a higher residual vulnerability are the ones that are more likely to lead to financial instability if no further mitigating actions are taken.

Since the release of the November 2022 *FSR*, two new risks have been added to the RVM, namely (i) capital outflows and declining market depth and liquidity; and (ii) secondary sanctions amid heightened geopolitical polarisation. The risks associated with sustained capital outflows, declining market depth and lower liquidity in domestic financial markets have been

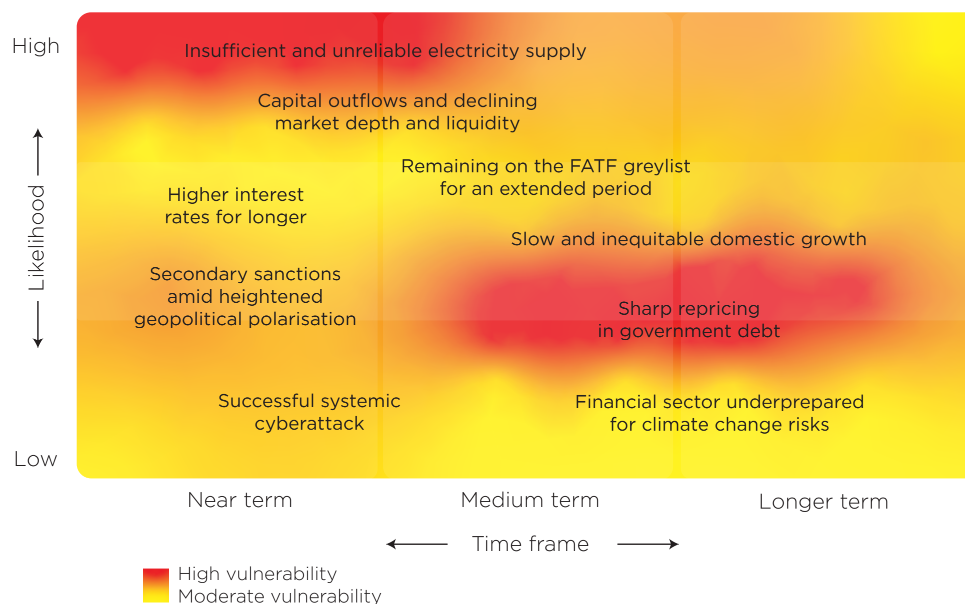
19 The RVM serves as a visual communication tool. Although the assessment is based on underlying qualitative and quantitative analyses, the RVM itself is not based on scientific methodology.

discussed in some detail in previous editions of the *FSR*. However, what has not been explicitly discussed is how this risk may interact with other vulnerabilities to potentially cause domestic financial instability. As the recent US banking sector turmoil demonstrated, vulnerabilities such as unhedged interest rate risks, concentrated exposure to the sovereign and an undiversified depositor base may interact to pose liquidity – and ultimately solvency – challenges for banks. The prevalence of capital outflows, declining market depth and lower liquidity in domestic financial markets is not limited to South Africa, and indeed several emerging markets are faced with the same challenge. However, idiosyncratic domestic factors such as the greylisting by the FATF, electricity supply challenges and political instability exacerbate this risk.

The risk of secondary or indirect sanctions being imposed on South Africa if its neutral stance on the Russia-Ukraine war is perceived as unconvincing has increased since the previous *FSR*, prompting the inclusion of this risk on the SARB RVM. Should this risk materialise, the South African financial system will not be able to function if it is not able to make international payments in USD and it could lead to a sudden stop to capital inflows and increased outflows. In turn, this could further exacerbate declining domestic financial market depth and liquidity, and further erode investor confidence and sentiment if considered alongside the FATF greylisting and the country's inability to arrest the growing prevalence of load-shedding. There is also a risk that South African financial institutions may be subjected to more intensive scrutiny by foreign counterparts, even in the absence of formal secondary sanctions.

Although the FATF greylisting materialised during the review period and had largely been priced in by markets prior to the announcement in February 2023, the medium- to longer-term risk is that South Africa remains on the FATF greylist for an extended period (i.e. longer than 24 months). Coupled with the above-mentioned factors weighing on South Africa's international reputation, remaining on the FATF greylist for an extended period would contribute to capital outflows and a higher country risk premium.

Figure 29: SARB RVM



The RVM is supported by a table that (i) identifies the risks to South Africa's financial stability; (ii) highlights the associated domestic vulnerabilities through which the risk could be propagated in the event of a shock to the South African financial system; (iii) identifies the mitigating factors and actions that would

alleviate the impact of the potential shock to domestic financial stability; and (iv) describes the likely residual impact on financial stability in South Africa (i.e. the potential net impact the risk would have should it materialise as a shock after the identified mitigating factors and actions have been accounted for). The RVM and accompanying table represent the SARB's overall assessment of the residual vulnerability of the domestic financial system to the identified risks once mitigating factors and actions have been accounted for.

Table 1: Financial stability risks, vulnerabilities, mitigating factors/actions and residual risk/vulnerability

Risk	Associated domestic impact/ vulnerability	Mitigating factors/actions	Residual financial stability risk/vulnerability (high, moderate or limited)	Change since previous *FSR*	Time frame
Insufficient and unreliable electricity supply	• Increased cost of doing business threatening business profitability and sustainability • Lower government revenue collections as businesses explore alternative energy sources • Negative impact on South Africa's international reputation, increased capital outflows and a higher country risk premium • Increased risk of critical infrastructure not being available, most notably cellular network towers and water distribution facilities • An increased number of domestic uninsurable risks	• Cabinet approved a bill on energy regulation to remove obstacles to private electricity generation projects in March 2023 • Households and firms are investing in alternative energy, although at the expense of other growth-generating investment opportunities	• Slow progress with energy reforms • Higher stages of load-shedding, combined with non-scheduled breakdowns, severely impede the domestic financial system's ability to keep performing its functions • The risk of a complete electricity grid failure, while still highly unlikely, continues to increase • A total grid collapse would constitute a 'systemic event' as defined in the FSR Act	➔	Short term
Capital outflows and declining market depth and liquidity	• A sustained decrease in the value of SAGBs held by non-residents causes greater concentration within the domestic financial system • The orderly functioning of the government bond market can be disrupted, potentially requiring repeated episodes of support by authorities • Less diversified capital markets ecosystem, which reduces the financial system's ability to absorb systemic shocks • A decrease in the exchange value of the rand if foreign investor appetite wanes and commodity prices decline • This risk can interact with the high exposure of the financial sector to government debt	• Flexible foreign exchange (FX) rate • Level of FX reserves meets most international benchmarks • Low FX mismatches on bank and sovereign balance sheets	• Growing concentration and interconnectedness within the South African financial system	New risk	Short to medium term
Sharp repricing in government debt	• High holdings of SAGBs, especially by non-systemic banks and other financial institutions contribute to concentration in the domestic financial system • Despite a notable improvement in the outlook for government finances in recent months, vulnerabilities remain due to the high level of debt (especially to SOEs) and committed spending items • Lower levels of private investment and savings • This risk can interact with the risk of lower liquidity in the SAGB market and declining market depth, which could amplify shocks through forced selling and the rapid deleveraging of leveraged positions	• Closer supervisory scrutiny • Government debt is largely domestic currency-denominated with long maturities • The most concentrated holdings of government debt among non-systemic banks rather than systemically important banks • Fiscal consolidation is supported by an economic recovery and higher commodity prices • Large, diversified banks are less exposed to government debt and better hedged against adverse events • Regulatory oversight of risk management processes in financial institutions	• Financial sector exposures to the sovereign remain elevated, in particular among smaller banks • Accounting practices may not reveal unrealised losses • Not all institutions may be sufficiently capitalised to absorb a severe sovereign debt or liquidity shock • The risk of dysfunction in the SAGB market is exacerbated by high exposure, concentration and lower liquidity • Failure in fiscal consolidation can lead to unsustainable government debt levels	Rephrasing of existing risk	Medium to long term

Table 1: Financial stability risks, vulnerabilities, mitigating factors/actions and residual risk/vulnerability

Risk	Associated domestic impact/ vulnerability	Mitigating factors/actions	Residual financial stability risk/vulnerability (high, moderate or limited)	Change since previous *FSR*	Time frame
Higher interest rates for longer	• Extended period of higher funding and debt servicing costs for households and firms alike • Rising interest rates in AEs could cause further capital outflows and currency depreciation for emerging markets	• Domestic core inflation is still contained	• The high level of interconnectedness in the South African financial sector means that risks in individual sectors could spill over to other areas of the financial system • Tighter financial conditions could interact with low growth to weaken balance sheets • Lack of data on foreign-currency mismatches by non-financial corporates	➔	Short to medium term
Remaining on the FATF greylist for an extended period	• Initial impact of the greylisting was priced in, but there are longer-term implications should South Africa not manage to get off the FATF greylist within 24 months • Further damage to South Africa's international reputation contributes to capital outflows and a higher country risk premium • Higher transactional, administrative and funding costs for domestic banks • A decline in correspondent banking relationships for South African banks, with regional spillover effects	• Coordinated response to address the deficiencies identified through a government-led interdepartmental committee on anti-money laundering, counter financing of terrorism and combating proliferation financing (AML/CFT/CPF) to coordinate South Africa's response • Financial sector assessment relatively sound, mitigating the reaction of correspondent banks • Several countries have offered assistance to South Africa, both in terms of funding and other forms of support	• Mitigating actions from the remedial recommendations of FATF may not be implemented in time for the next assessment cycle • Assistance and support by other countries cannot address all idiosyncratic domestic risk factors	➔	Medium to longer term
Secondary sanctions amid heightened geopolitical polarisation	• South Africa's desire to maintain political neutrality may not be perceived as such, potentially resulting in indirect or secondary sanctions being imposed, in particular by the US • The South African financial system will not be able to function if it is not able to make international payments in USD • Loss of correspondent banking relationships and more intensive scrutiny of South African financial institutions by foreign counterparts, even in the absence of formal secondary sanctions • A sudden stop to capital inflows and increased outflows	None	• Many events are beyond South Africa's control (e.g. policy tightening in AEs, the ongoing Russia-Ukraine war, rising global inflation and global market uncertainty and volatility) • South Africa's ties with Russia through BRICS and other bilateral and multilateral engagements pose a risk in the form of potential secondary sanctions being imposed on South Africa	New risk	Short to medium term
Slow and inequitable domestic growth	• Inequitable growth raises the risk of social unrest, which in turn may negatively impact on investor confidence, funding costs, insurance claims and operational costs • Muted new business growth may lead to increased risk-taking, reduced service and product offerings or higher fees to protect profit margins	• Regulatory frameworks comply with international standards • Close supervision of financial institutions	• Limited progress on implementing structural reforms leaves the economy vulnerable to an extended period of weak, inequitable growth • Infrastructure degradation (railways, ports, water, electricity) limits potential and actual growth	➔	Medium term

Table 1: Financial stability risks, vulnerabilities, mitigating factors/actions and residual risk/vulnerability

Risk	Associated domestic impact/ vulnerability	Mitigating factors/actions	Residual financial stability risk/vulnerability (high, moderate or limited)	Change since previous *FSR*	Time frame
Financial sector underprepared for climate change risks	• High concentration of carbon-intensive activities in South Africa may lead to the financial system having large exposures to stranded assets in the future • Increase in the number of uninsurable risks relating to frequently occurring climate-related events (e.g. droughts, floods, fires) • Immature international regulatory framework against which to define and quantify risks	• More affluent consumers are decreasing reliance on Eskom through green energy alternatives • Introduction of climate stress testing by the SARB promotes industry efforts to define and quantify risks • Establishment of the Presidential Climate Financial Task Team should contribute to policy certainty • South African carbon tax implemented in June 2019 to increase to at least USD30 per tonne by 2030	• As more affluent consumers reduce reliance on Eskom for electricity, Eskom's client base could shrink and become dominated by non-payers, in turn placing further pressure on Eskom's longer-term viability • Loss of competitiveness in the South African economy as the world shifts toward carbon neutrality • Higher funding costs and other barriers for financial institutions that fund unsustainable assets • Lack of comparable, granular climate-related data on financial exposures and voluntary reporting limits supervisory and regulatory analysis • Increasing cost of short-term insurance and unwillingness to provide cover against climate-related risks	➜	Medium to longer term
Successful systemic cyberattack	• Growing dependency on information technology (IT) for transactions and communication • Increased reliance on third-party IT service providers and increased centralisation of IT infrastructure globally • Disruptive attacks on major global financial market infrastructures could quickly spill over to South Africa	• Large IT security spending and focus in the financial sector • Enhanced structures to ensure prevention, timely detection, response and recovery by the SARB and the financial sector • Promulgation of the Cybercrimes Act 19 of 2020	• Smaller financial institutions and third-party service providers appear to be most vulnerable given limited skills and resources to address cyber-risk • Exposure to global market infrastructure at risk of attack introduces risk into the domestic financial system, with limited mitigation possibilities	➜	Short to medium term

Assessment of financial stability conditions

On the basis of the risks, vulnerabilities and mitigating factors and actions identified, the SARB's assessment of the stability of the financial system is as follows:

- Systemic risk increased during the period under review, mainly due to further monetary policy tightening, global banking turmoil, volatile financial markets and downward revisions of growth projections, both for major economies and South Africa. Lingering recession fears and geopolitical tensions contributed to heightened systemic risk over the review period.
- Idiosyncratic domestic factors continued to weigh on domestic financial sector resilience, most notably as a result of the FATF greylisting in February 2023 and the increasingly detrimental and widespread ramifications of insufficient and unreliable electricity supply.
- Prudentially regulated domestic financial institutions, in aggregate, remain resilient, as measured by their ability to maintain adequate capital and liquidity buffers to absorb the impact of shocks.
- The South African financial system remained resilient amid the global banking sector turmoil and resulting volatility. However, even slower and more inequitable domestic economic growth will likely test this resilience beyond the forecast period.

Policy actions and initiatives undertaken to enhance domestic financial stability

The SARB undertook the following initiatives and policy actions to enhance financial stability:

- **The SARB continued to collaborate with FSOC members to address some of the key risks to financial stability,** in particular on the way forward following South Africa's greylisting by the FATF and the financial stability implications should secondary sanctions be imposed on South Africa.
- **The SARB's FSC maintained the CCyB at 0% at its April 2023 meeting.** In line with ongoing work by the BIS on the CCyB, the SARB is assessing the appropriate neutral level for the CCyB for South Africa.
- **Work continued on the implementation of the resolution and deposit insurance frameworks.** Most notably, the FSLAA commencement schedule was published by the Minister of Finance on 24 March 2023. In terms of this schedule, CODI became a legal entity on 24 March 2023, but will only be fully operational from 1 April 2024. The SARB will become the Resolution Authority for designated institutions on 1 June 2023, on which date the resolution framework also becomes effective.
- **The SARB, through the FSCF, continued to plan for the improbable but not impossible scenario of a national electricity grid shutdown.** In line with the role and function of the FSCF, 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.
- **The FSC continues to assess whether concerns over the sovereign-bank nexus require policy intervention.** The PA began introducing measures to manage interest rate risk in the banking book to support bank-based assessments of risk relating to assets such as government bonds. Although the FSC did not take any further steps regarding policy action to directly address the sovereign-bank nexus at its meeting in April 2023, developments continue to be monitored closely.

Chapter 3: Briefings on selected topics relevant to financial stability

This chapter is dedicated to short, stand-alone briefings on topics and possible emerging risks relevant to domestic financial stability, with the dual objective of stimulating debate and informing *FSR* readers of the latest developments on a selection of topics. This edition of the *FSR* provides an update on (i) the financial stability implications of an insufficient and unreliable electricity supply; (ii) the developments related to the establishment of a deposit insurance fund; (iii) the implementation of the resolution framework; (iv) the financial stability implications should secondary sanctions be imposed on South Africa; and (v) the failure of SVB and the resulting scrutiny of different accounting treatments for banks' government bond holdings.

The financial stability implications of an insufficient and unreliable electricity supply

Where is the trend heading?

South Africa has experienced growing electricity supply shortages since 2008, which are increasingly contributing to low growth. However, both the frequency and extent of load-shedding have increased exponentially over the past few years, prompting President Cyril Ramaphosa to declare a national state of disaster on 10 February 2023 to respond to the electricity crisis and its effects, although this has since been revoked.[20] Table 2 below shows the growing number of equivalent full days that South Africa has been without electricity since 2018.

Table 2: Equivalent full days of load-shedding* from 2018

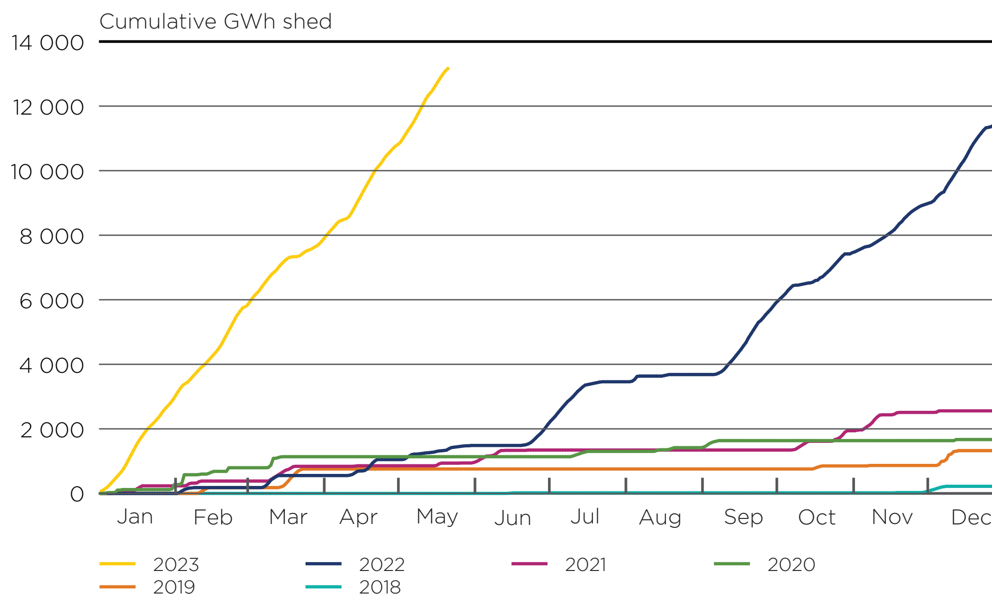
Year	No. of days
2018	6
2019	22
2020	35
2021	49
2022	157
2023	136**

Source: EskomSePush (ESP) app and SARB
* Equivalent full days of load-shedding is calculated as the number of hours when load-shedding was active, divided by 24
** Year to date until 21 May 2023

20 For more information, see https://www.parliament.gov.za/news/president-ramaphosa-declares-national-state-disaster-electricity-crisis#:~:text=President%20Ramaphosa%20Declares%20National%20State%20Of%20Disaster%20In%20Electricity%20Crisis,-Participate%20in%20Parliament&text=President%20Cyril%20Ramaphosa%20has%20informed,electricity%20crisis%20and%20its%20effects; the state of disaster was subsequently terminated, with immediate effect, on 5 April 2023 (see https://www.gov.za/speeches/government-terminates-national-state-disaster-%C2%A0electricity-supply-constraints-5-apr-2023)

SARB calculations show that after approximately 219 gigawatt hours (GWh) in 2018 and 1 326 GWh in 2019, a total of 1 701 GWh were shed in 2020, increasing to 2 558 GWh in 2021. This increased significantly to 11 697 GWh shed for 2022 as a whole. For the year to 21 May 2023, approximately 13 000 GWh have been shed, confirming that the first five months of 2023 have seen more GWh shed than in the entire 2022 (Figure 30).

Figure 30: Cumulative load-shedding from 2018



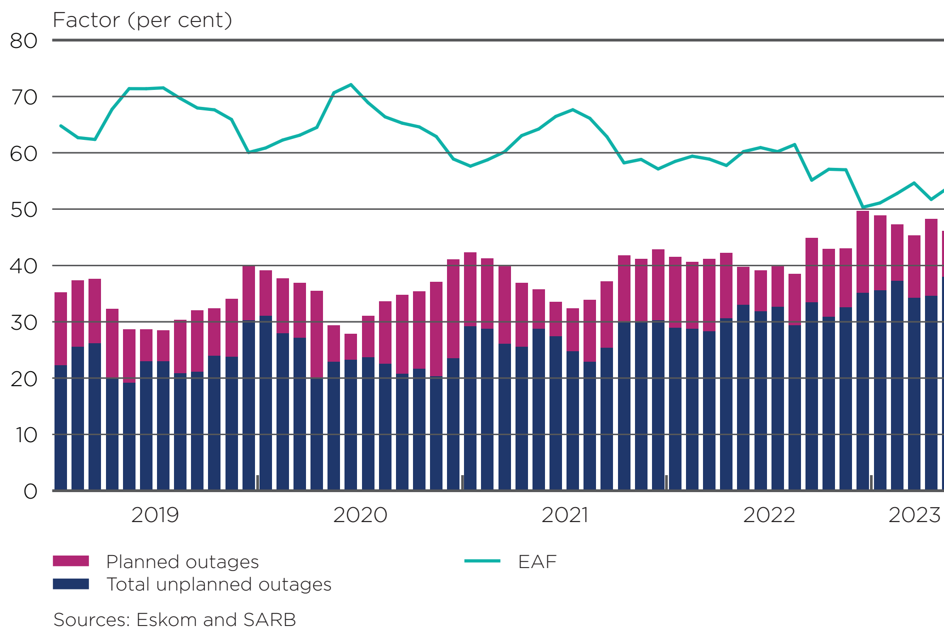
Sources: ESP app, Eskom Twitter account and SARB

The more frequent and higher stages of load-shedding are caused by the declining performance of Eskom's fleet of ageing power stations. The average energy availability factor (EAF)[21] for the year to 20 May 2023 is 52.8%, down from an average of 58.1% in 2022, 61.8% in 2021 and 65% in 2020. This sustained decline in the EAF is primarily attributable to an increasing number of unplanned outages amid increasingly frequent breakdowns of generating units at old and unreliable coal-fired power stations (Figure 31). The total unplanned outage factor[22] has averaged 35.9% in 2023 thus far; again the highest on record (the 2022 average was 31.3%). At these elevated levels, higher stages of load-shedding (i.e. stage 4 and above) have become more commonplace, detrimentally affecting business productivity as well as business and consumer confidence.

21 The EAF is the available generation capacity expressed as a percentage of the total installed generation capacity. It excludes renewables, independent power producers (IPPs) and electricity imports.

22 The unplanned outage factor is the generation capacity unavailable due to unexpected and unplanned breakdowns at generation units, expressed as a percentage of the total installed generation capacity.

Figure 31: Eskom EAF and planned and unplanned outages



Sources: Eskom and SARB

What is the impact on economic growth and inflation?

The SARB forecasts GDP growth of merely 0.3% in 2023, with load-shedding expected to detract two percentage points from overall growth this year (assuming 280 days of load-shedding at varying stages, but predominantly at stage 4). Load-shedding is expected to ease to 150 days (lowering GDP growth by 0.8 percentage points) and 100 days (reducing GDP growth by 0.4 percentage points) in 2024 and 2025 respectively, as some of the mitigants discussed below begin to take effect.

Severe stages of load-shedding could also be inflationary as higher operating costs (from running diesel generators) are passed to consumers[23] and higher rates of wastage and spoilage, especially along food value chains, lead to possible goods shortages. SARB analysis shows that load-shedding may add 0.5 percentage points to headline inflation in 2023.[24] Load-shedding will likely adversely impact other macroeconomic variables, for example the contractionary effect on growth could hamper a sustained recovery in employment, while load-shedding concerns will continue to weigh on investor sentiment, in turn raising South Africa's risk premium and placing pressure on the exchange rate.

There is growing evidence to suggest that households and firms are investing in alternative energy sources to mitigate the effects of more severe load-shedding, although at the expense of other priorities. Generator imports (at constant prices) were at multi-year highs in 2022 (Figure 32), while the

23 Power from a generator is as much as 408% more expensive than power from the municipal grid – according to the Council for Scientific and Industrial Research (CSIR). At R15/litre of diesel, the average fuel cost of running a generator is R4.50/kilo-watt hour (kWh). Given that the diesel price in 2022 averaged R22.51/l, the cost of running a generator adds up to R6.75/kWh; Parliament of the Republic of South Africa, Portfolio Committee on Mineral Resources and Energy, 15 March 2022 [YouTube video]. https://www.youtube.com/watch?v=J67bX4irflE

In addition, data from the Global Economy Project estimates average electricity prices (from the municipal grid) in South Africa for businesses using on average 1 000 000kWh at R1.33/kWh. https://www.globalpetrolprices.com/South-Africa/electricity_prices/.

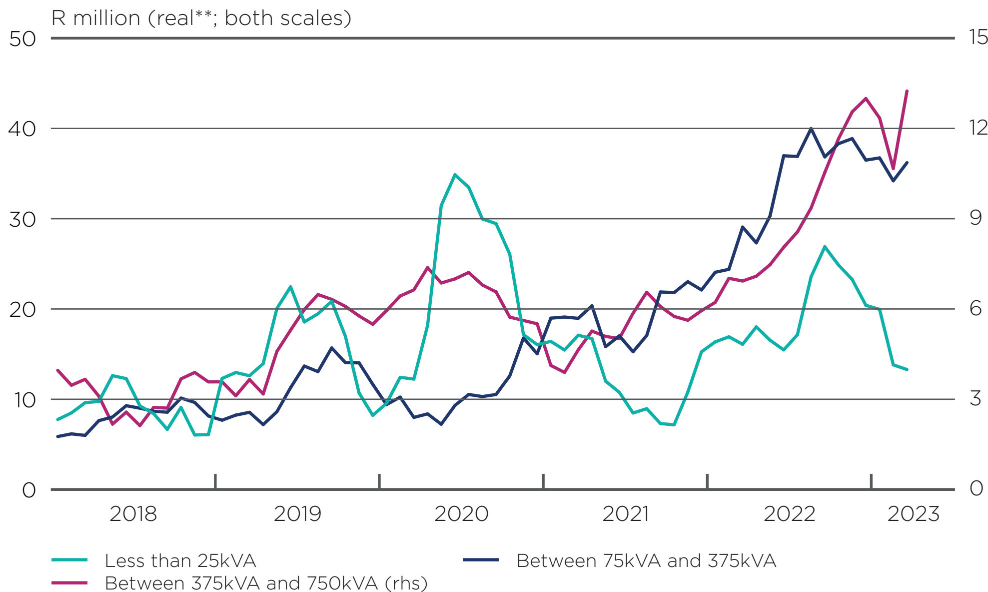
(The quoted figure of 408% is a simple markup of R6.75/kWh over R1.33/kWh).

24 See Box 1 in the SARB's April 2023 *Monetary Policy Review* for details on the methodology and assumptions behind the SARB's estimate of the inflationary impacts of load-shedding.

first quarter of 2023 saw solar panel imports of around R3.2 billion (at constant prices), compared to approximately R1.4 billion during the first quarter of 2022.

The transition of households to alternative energy sources is likely to widen the already skewed income and development distribution in South Africa, as it is mainly middle- to high-income households that can invest in alternative energy sources, while poorer households are largely without recourse.

Figure 32: Generator imports*



* Alternating current generator imports (6-month moving average)
** Nominal values deflated with CPI: Goods index
Sources: SARS, Stats SA and SARB

Interventions incentivising private electricity generation[25] announced in the 2023 *Budget Review* should continue to support these mitigation efforts.[26] However, investment in and construction of private generation capacity will likely only begin to have materially positive impacts in the medium term. This lagged effect, coupled with the fact that Eskom's major repair, capital investment and maintenance projects are only expected to be completed over the next 12 to 18 months, suggests that load-shedding will remain severe and impact economic activity negatively over at least the next 12 months.

What are the implications for financial stability?

The South African definition of financial stability as per section 4 of the FSR Act is focused on (i) the domestic financial system's ability to keep performing its functions and duties in terms of financial sector laws, without interruption and despite changes in economic circumstances; and (ii) there being general confidence in the ability of financial institutions and market infrastructures to keep providing the said products and services, and to perform their functions and duties. Financial stability therefore refers to a financial system that is resilient to systemic risks and shocks and can efficiently intermediate funds,

25 Measures include expanding existing tax incentives for firms investing in renewable energy, introducing tax deductions for the installation of rooftop solar panels by households and a diesel rebate for food manufacturers for diesel used in the running of generators.

26 National Treasury also outlined a debt relief programme in the 2023 *Budget Review* with the ultimate objective of setting Eskom's financial position on a more sustainable path.

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.

In view of this definition and the broader trends and implications discussed above, it is evident that an insufficient and unreliable electricity supply is a growing risk to financial stability in South Africa. The prevalence of higher stages of load-shedding poses an immediate risk to the efficient functioning of infrastructure such as automated teller machines (ATMs) and cellular networks, which are crucial for the smooth functioning of the financial system. Load-shedding also contributes directly to increased insurance claims and higher excess costs as outage-related claims from households and businesses mount, prompting an increasing number of insurers to exclude load-shedding-related claims from insurance policies.

For some municipalities – especially smaller ones and those in rural areas – the revenue generated by electricity sales constitutes the bulk of municipal revenue. While the transition to alternative energy sources should have long-term benefits for the economy, it will have a structural impact on the income base of municipalities. Higher stages of load-shedding therefore materially threaten the financial viability of numerous municipalities, in turn potentially placing further strain on the fiscus while further negatively impacting service delivery.

Insofar as electricity supply constraints lead to goods shortages and become an active driver of medium-term inflation expectations,[27] load-shedding could influence underlying inflation dynamics, slowing the disinflationary process and possibly contributing to monetary policy and financial conditions remaining restrictive for longer.

A less directly measurable effect of load-shedding is its negative impact on overall investor sentiment and the associated impact on South Africa's country risk premium. Sustained insufficient and unreliable electricity supply is a significant drag on economic growth, which entrenches and contributes to the challenge of slow and inequitable domestic growth outlined in the RVM.

Establishment of the Corporation for Deposit Insurance

CODI became a legal entity on 24 March 2023 as set out in the commencement schedule published by Finance Minister Enoch Godongwana on the same day.[28] The commencement schedule outlined the dates at which the resolution and deposit insurance provisions in the FSLAA come into operation. The FSLAA was signed into law by President Ramaphosa in January 2022 and amends the FSR Act.

Although CODI is now established as a legal entity, it will only be fully operational from 1 April 2024. The FSR Act contains high-level primary legislation for the establishment and operation of a deposit insurance scheme. CODI will spend the next year working with National Treasury to take the more granular secondary legislation through Parliament for approval and sign-off by the President. The secondary legislation contains detailed rules relating to the operations of CODI and the funding of the deposit insurance fund (DIF).

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27 Business surveyed inflation expectations rose sharply during 2022. While this increase likely also reflects other inflationary pressures, such as higher fuel prices, it is noteworthy that, when looking at survey responses by sector, those sectors most likely affected by power outages, like agriculture and manufacturing, saw noticeable upticks in two-years-ahead inflation expectations in the fourth quarter of 2022 and the first quarter of 2023.

28 The commencement schedule is available at https://www.gov.za/sites/default/files/gcis_document/202303/48291gon3187.pdf

CODI's primary responsibilities are establishing, maintaining and administering the DIF to protect the banks' covered depositors and to inform the depositors of its benefits and limitations should a bank be placed into resolution. While CODI is a statutory body and a subsidiary of the SARB, it has an independent board of directors which will manage and oversee its affairs. CODI has been collaborating with South African banks and other stakeholders, including the World Bank, to ensure a smooth implementation of the deposit insurance scheme.

In terms of the FSR Act, banks became members of CODI on its establishment date. Membership is compulsory for all banks registered in terms of the Banks Act 94 of 1990 (Banks Act), the Mutual Banks Act 124 of 1993 and the Co-operative Banks Act 40 of 2007. The members include foreign banks operating in South Africa that are regulated and supervised by the PA as the host supervisor.

One of the key benefits of an explicit deposit guarantee scheme is that it provides certainty to depositors, not only about the amount of compensation that they will receive in the event of a bank failure, but also about the process and timing of compensation. To enable CODI to make fast and efficient payouts, it has to put in place a technology system through which to collect, process and store depositor information on an ongoing basis. This information will also be used to calculate the financial contributions of individual banks. CODI has completed the work on a target operating model which will provide important inputs for the development of such a system. The governance and administrative processes to collect levies for CODI's operational costs and premiums are underway for implementation from April 2024. This will make CODI operationally ready to protect qualifying depositors in the event that their bank should fail.

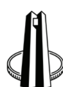
The CODI team has set up a webpage (https://www.resbank.co.za/en/home/what-we-do/Deposit-insurance) to answer the questions the public may have about the deposit insurance scheme and the DIF.

Implementation of the resolution framework

In terms of the FSLAA commencement schedule published on 24 March 2023, the SARB will officially assume its role as the Resolution Authority on 1 June 2023. This means that with effect from 1 June 2023, the resolution framework provided for under Chapter 12A of the FSR Act will be applied to deal with failing designated institutions, thus replacing the curatorship provisions as currently stipulated in section 69 of the Banks Act. However, it should be noted that institutions falling under the scope of the resolution framework that were placed under curatorship prior to 1 June 2023 will continue to be dealt with as if the curatorship framework had remained in force.

The resolution provisions under Chapter 12 of the FSR Act will be supplemented by requirements to be expressed through prudential standards, regulatory directives and, where relevant, guidance notes. In order to provide clarity to the industry, two of these prudential standards, namely (i) stays on early-termination rights and resolution moratoriums on contracts of designated institutions in resolution; and (ii) the transfer of assets and liabilities of a designated institution in resolution, will come into effect on the same date as the resolution provisions (i.e. on 1 June 2023). In addition to these two prudential standards, the SARB will issue an interpretation ruling in terms of section 142 of the FSR Act to provide clarity and certainty on how it will interpret and apply the resolution powers provided for under section 166S of the FSR Act in relation to securities lending transactions and repurchase transactions.

Although the resolution provisions in the FSR Act will become legally effective on 1 June 2023, some of the new requirements imposed on the SARB and on



banks, especially the systemically important banks, will be phased in over several years. However, despite the constraints of these phase-in requirements, the provisions in the FSR Act strengthen the SARB's ability to deal with the failure of designated institutions more effectively.[29]

Risk of secondary sanctions imposed on South Africa

Section 11 of the FSR Act makes the SARB responsible for protecting and enhancing financial stability. This responsibility places an obligation on the SARB not only to take actions to protect financial stability, but also to refrain from taking actions that would harm financial stability. The SARB is legally obliged to take steps to avoid the materialisation of such a risk.

Section 12 of the FSR Act also places a responsibility on the SARB to manage systemic events. A systemic event is an event or circumstance that may reasonably be expected to have a substantial adverse effect on the financial system or on economic activity in South Africa, whether the event occurred (or arises) from within or outside South Africa.

During her recent visit to South Africa in January 2023, the US Secretary of the Treasury, Janet Yellen, provided the following warning to South Africa: *"My main message is that we take very seriously these sanctions that we've placed on Russia in response to its brutal invasion of Ukraine. Violation of those sanctions by local businesses or by governments – we would respond to quickly and harshly and we certainly urge that there be compliance with those sanctions. That's the discussion I've had here."*

Numerous media articles published over recent months have highlighted the growing challenges posed by South Africa's efforts to maintain its neutral stance on Russia.[30] The events reported in the media and recent remarks by the US Ambassador to South Africa[31] could change perceptions about South Africa's neutrality, which could build up to a point where it triggers secondary sanctions being imposed on South Africa. Considered along with the recent FATF greylisting, the potential implications for the South African economy are severe, and the considerations from a financial stability perspective pertinent. Even in the absence of formal secondary sanctions, counterparts to South African financial institutions could put institutions under intensified scrutiny and decide to reduce their exposure to South Africa as part of their own risk management processes.

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29 For a detailed description of the SARB's intended approach to resolution under the FSLAA, refer to the relevant discussion papers on the SARB website, available at https://www.resbank.co.za/en/home/what-we-do/financial-stability/resolution-planning.

30 https://www.businesslive.co.za/fm/opinion/editorial/2023-04-12-editorial-sacrificing-south-africa-to-protect-a-war-criminal/
https://times-e-editions.pressreader.com/article/281500755530400
https://www.dailymaverick.co.za/opinionista/2022-05-16-ukraine-south-africa-is-not-neutral-we-are-non-aligned/
https://www.wsj.com/articles/janet-yellen-warns-south-africa-about-breaching-russia-sanctions-11674828642
https://www.aljazeera.com/news/2023/3/17/icc-issues-arrest-warrant-for-russias-putin-over-ukraine-crimes
https://www.news24.com/news24/africa/news/us-passes-law-to-monitor-russias-activities-in-africa-20220517
https://www.biznews.com/global-citizen/2022/06/23/us-sanctions-africa-russia-love-affair
https://www.dailymaverick.co.za/article/2023-04-08-dangerous-liaisons-sas-russian-roulette-jeopardises-trade-agreements-with-us-and-other-western-nations/?utm_source=TouchBasePro

31 Watch: US Ambassador to South Africa, Reuben Brigety, addresses the media in Pretoria. https://www.youtube.com/watch?v=48H5qqj6Lds

The SARB has identified the following key risks to, and implications for, domestic financial stability that would result from the imposition of potential secondary sanctions on South Africa:

i. FATF greylisting and financial system integrity

   a. The double impact of secondary sanctions and the recent FATF greylisting may cause severe and long-lasting damage to South Africa's reputation in the global financial system, with a range of adverse consequences.

ii. Impact on cross-border payments and correspondent banking relationships:

   a. Should secondary sanctions be imposed on South Africa, the most immediate impact would be the tightening or termination of correspondent banking relationships and increasing costs of cross-border payments. There would also be a regional impact as many countries in the Southern African Development Community (SADC) region depend on South African banks for correspondent relationships and cross-border transactions.

   b. The ZAR is one of 18 currencies that participate in the continuous linked settlement (CLS) system.[32] It is both the only African and BRICS currency that participates in CLS. CLS is regulated and supervised by the Federal Reserve Bank of New York (FRBNY). The oversight of CLS is one of collaboration between the countries whose currencies participate in CLS, and the oversight committee is chaired by the FRBNY. Should secondary sanctions be imposed on South Africa, pressure could possibly be placed on CLS to remove the ZAR from the CLS system, which would expose South African banks to principal risk when settling FX transactions in CLS currencies, in turn significantly increasing FX settlement risk for these South African banks.

iii. The risk of damaging relations with South Africa's largest trading partners

   a. There is a risk that South Africa's favourable access to the US market in terms of the US African Growth and Opportunity Act (AGOA) may not be renewed when it expires in 2025, which will have severe consequences for corporates and industries who have benefitted from this agreement since its inception in 2000.

   b. The South African banking sector's claims on the UK amounted to R324 billion at the end of 2022, or close to 38% of the total banking sector's claims on the rest of the world, while banking sector claims on the US was R70 billion, or 8% of total South African banking sector claims. Claims on Russia were immaterial.

   c. As at 31 December 2022, 82.5% of foreign direct investment into South Africa originated from the US, EU and UK, compared to 0.003% from Russia.

   d. Foreign markets (in particular European markets) are a stable source of term funding for South African banks. Any secondary sanctions would constrain or even completely close off access to international capital markets for South African banks, other financial institutions and corporates. This will also spill over into the cost and availability of funding for the rest of the financial sector and the real economy.

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32 The CLS system is an FX settlement system with the purpose of settling both legs of an FX transaction simultaneously to reduce/eliminate FX settlement risk. The participating currencies are the USD, British pound (GBP), euro (EUR), Canadian dollar, Mexican peso, Australian dollar, Danish krone, Hong Kong dollar, Hungarian forint, Israeli new shekel, Japanese yen, New Zealand dollar, Norwegian krone, Singapore dollar, ZAR, South Korean won, Swedish krone and Swiss franc.

e. International market participants providing USD clearing, settlement and payment services to South African banks would either fundamentally reduce or completely halt such transactions and services, based on the aspects related to the imposition of secondary sanctions as described above.

f. Many of the above factors would significantly increase regulatory capital requirements for banks and constrain revenues due to a loss of business, counterparties and clients.

iv. Impact on South Africa's foreign reserves

a. The SARB's foreign reserves are denominated mainly in gold and hard currencies such as USD, euro (EUR) and British pound (GBP). The management of these foreign reserves may be impacted if secondary sanctions were to be imposed on South Africa.

How secondary sanctions imposed on South Africa could result in a systemic event

If secondary sanctions are imposed on South Africa, it will make it impossible to finance any trade or investment flows, or to make or receive any payments from correspondent banks in USD. There is also the risk that such sanctions could be expanded to include payments in EUR or GBP. This will be catastrophic for the South African economy and has the undeniable potential to trigger a financial crisis in the following manner:

i. The South African financial system will not be able to function if it is not able to make international payments in USD. The impact of this on the economy and financial markets will be far-reaching.

ii. More than 90% of South Africa's international payments, in whichever currency, are currently processed through the Society for Worldwide Interbank Financial Telecommunication (SWIFT) international payment system. Should South Africa be banned from SWIFT as a result of secondary sanctions, these payments will not be possible.

iii. As a country with low domestic savings and a current account deficit, South Africa is highly dependent on foreign investment inflows to fund this deficit. South Africa is already plagued by foreign investment outflows as a result of its weak economic conditions and the recent FATF greylisting. Jeopardising remaining investment inflows, which come predominantly from the US, EU and UK, could therefore lead to financial instability.

The failure of SVB: A spotlight on accounting treatments

The recent US banking turmoil has illustrated several channels through which financial instability could manifest in the banking sector, including but not limited to large holdings of uninsured deposits, a concentrated depositor base, unhedged interest rate risk, the rapid spread of information enabled by social media, and the speed with which bank runs occur in the age of digital banking.

In the case of SVB specifically, the bank's assets were highly concentrated in US Treasuries, which did not raise undue concern as they are generally regarded as safe assets. However, in terms of the accounting treatment that was followed, SVB's holdings of US Treasuries were not recognised at market value on its balance sheet and significant valuation losses were triggered when it had to sell some of these assets to raise liquidity. The case of SVB highlights how valuation gaps could arise due to different accounting treatments for banks' holdings of government debt, either by accounting for holdings that are 'available for trade' (AFT) or 'available for sale' (AFS) at current market

prices (i.e. mark to market or MTM), or for holdings that are intended to be held until maturity (i.e. hold to maturity or HTM).

SVB was a niche bank in the US, based in Silicon Valley, California. As a niche bank focusing on start-ups in the technology sector, it had a concentrated corporate client base, with 95% of SVB's deposits exceeding the $250 000 deposit insurance limit of the US Federal Deposit Insurance Corporation (FDIC). Over half of SVB's assets comprised US Treasuries, which had been accumulated during a period of low interest rates at higher historical prices than the prevailing market prices.[33] SVB applied an HTM accounting practice to a large part of its holdings of government debt, and as a result accumulated material unrealised losses on its balance sheet. These losses remained unnoticed until SVB had to sell part of its Treasuries portfolio to fund deposit withdrawals. The acknowledgement of realised losses in a market update on 8 March 2023 caused a digital run of unprecedented speed, exacerbated by the spread of commentary on social media. On 10 March, SVB, broadly regarded as a fully compliant and safe bank until two days prior, failed.

The failure of SVB highlighted the different accounting treatments applied to portfolio investments, and the implication of these accounting treatments for internal risk management processes. International accounting standards require securities to be classified and valued based on their intended purpose. Securities can be classified as intended to be HTM, AFS or AFT purposes. International accounting standards preclude the arbitrary reclassification of securities after an initial classification and provide different guidelines for the treatment of gains or losses on securities under the different classifications.

The value of securities in an HTM portfolio is amortised over the period to their maturity dates. The value of a security in an HTM portfolio could be materially different from its prevailing market value, but because HTM securities are not intended to be sold, it would not normally matter because the amortised value of the security will be realised over time through coupon and principal payments. However, if a bank is forced to sell part of its HTM portfolio in a liquidity crunch, as was the case for SVB, the whole HTM portfolio becomes compromised and has to be revalued at prevailing market prices.

Securities not meeting the HTM definition are classified as part of the AFS portfolio and are required to be valued and accounted for at their prevailing market values (i.e. MTM). Changes in the market value of MTM portfolios are reflected in the bank's comprehensive income statement as either valuation gains or losses, and in bank equity through changes in retained earnings. MTM securities thus provide a relatively real-time market reflection of their current market value as well as their impact on book equity and, in some cases, regulatory capital.[34]

The SVB case emphasised the need for banks to apply effective interest rate risk management practices. Even if accounting practice allows the accounting value of HTM portfolios to deviate from their market values, the interest rate risk inherent in these portfolios still has to be measured and managed, for example, through effective hedging strategies. Risk managers and regulators should also be sensitive to the fact that even though the credit risk of high-quality liquid assets may be low, this does not imply that interest rate risk or concentration risk can be ignored. To this end, the PA – as part of its supervisory programme – has collected information from all banks to assess the extent to which the SVB scenario may be applicable to South Africa.

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33 For a detailed overview of the events leading up to SVB's failure, refer to Chapter 1 of the IMF's April 2023 *Global Financial Stability Report*, available at https://www.imf.org/-/media/Files/Publications/GFSR/2023/April/English/text.ashx.

34 This section draws from Marsh and Laliberte (2023). See Marsh, W.B. & Laliberte, B. (2023). 'The implications of unrealized losses for banks' Federal Reserve Bank of Kansas City *Economic Review.*

Abbreviations

AE	advanced economy
AFS	available for sale
AGOA	African Growth and Opportunity Act
AML	anti-money laundering
AUM	assets under management
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BoE	Bank of England
CCyB	countercyclical capital buffer
CFT	countering the financing of terrorism
CIS	collective investment scheme
CODI	Corporation for Deposit Insurance
Constitution	Constitution of the Republic of South Africa Act 108 of 1996
COVID-19	coronavirus disease 2019
CRE	commercial real estate
EAF	energy availability factor
ECB	European Central Bank
EM	emerging market
ESG	environmental, social and governance
EU	European Union
FATF	Financial Action Task Force
FDIC	US Federal Deposit Insurance Corporation
Fed	US Federal Reserve
FSC	Financial Stability Committee
FSCF	Financial Sector Contingency Forum
FSLAA	Financial Sector Laws Amendment Act 23 of 2021
FSOC	Financial Stability Oversight Committee
FSR	*Financial Stability Review*
FSR Act	Financial Sector Regulation Act 9 of 2017
FX	foreign exchange
GDP	gross domestic product
HTM	hold to maturity
ICR	interest coverage ratio
IIF	Institute of International Finance
IMF	International Monetary Fund
IT	information technology
MMF	money market fund
MTBPS	*Medium Term Budget Policy Statement*
MTM	mark to market
MPC	Monetary Policy Committee
NBFI	non-bank financial institution
NFC	non-financial corporate
NPL	non-performing loan
PA	Prudential Authority
RVM	Risk and Vulnerability Matrix
SAGB	South African government bond
SARB	South African Reserve Bank
SCR	solvency capital requirement
SME	small- and medium-sized enterprise
SOE	state-owned enterprise
SVB	Silicon Valley Bank
Stats SA	Statistics South Africa
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UK	United Kingdom
US	United States
USD	United States dollar
ZAR	South African rand

Annexure A: Banking and insurance sector indicators

Table A.1: Banking sector indicators*

	2019	2020	2021	2022	2023***
Market share in terms of assets (five largest banks)	90.37	89.99	89.84	89.55	89.44
Gini concentration index	83.21	83.11	82.68	82.36	81.46
Herfindahl-Hirschman Index (H-index)	0.18	0.18	0.18	0.18	0.18
Total assets (R billions)	5 769.3	6 457.3	6 562.3	7 020.1	7 342.5
- Year-on-year percentage change	8.63	11.93	1.74	6.97	10.17
Total loans and advances (R billions)	4 249.5	4 542.5	4 643.1	4 984.0	5 282.6
- Year-on-year percentage change	7.8	6.9	2.2	7.3	10.8
Total capital adequacy ratio	16.53	16.21	17.49	17.68	17.80
Tier 1 capital adequacy ratio	13.45	13.14	14.47	14.96	15.10
Common equity tier 1 capital adequacy ratio	12.69	12.33	13.30	13.63	13.60
Impaired advances (R billions)**	161.7	211.9	229.2	226.7	250.3
Impaired advances to gross loans and advances	3.8	4.7	4.9	4.5	4.7
Specific credit impairments (R billions)	73.6	92.2	105.5	109.7	118.2
Specific credit impairments to impaired advances	45.51	43.56	46.07	48.45	47.24
Specific credit impairments to gross loans and advances	1.73	2.03	2.27	2.20	2.24
Return on assets (smoothed)	1.24	0.79	0.81	1.12	1.13
Return on equity (smoothed)	15.31	10.22	10.62	14.27	14.91
Interest margin to gross income (smoothed)	56.80	58.17	58.65	58.77	59.52
Operating expenses to gross income (smoothed)	58.22	58.26	58.73	58.09	56.66
Liquid assets to total assets (liquid asset ratio)	11.1	12.2	13.3	14.0	14.9
Liquid assets to short-term liabilities	22.4	24.1	24.1	25.2	27.0
Liquidity coverage ratio	146.9	142.2	144.1	145.7	149.8

* Updated as of 3 April 2023. All figures are in percentages unless indicated 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.

*** 2023 includes data up to February 2023.

Source: PA

Table A.2: Insurance sector indicators

	2017	2018	2019	2020	2021	2022
Market share in terms of assets (five largest life insurers)	73	73	74	73	73	74
Market share in terms of gross written premiums (five largest non-life insurers)	47	46	48	47	50	49
Balance sheet						
Total assets: life insurers (R millions)	2 928 973	3 011 459	3 143 872	3 254 815	3 724 257	3 705 455
Total assets: non-life insurers (R millions)	160 976	196 726	206 831	239 132	260 616	290 127
Total liabilities: life insurers (R millions)	2 769 335	2 638 347	2 760 773	2 909 562	3 343 586	3 353 525
Total liabilities: non-life insurers (R millions)	98 152	114 828	117 377	141 422	178 516	177 446
Profitability						
Gross written premiums: life insurers (R millions)	485 507	529 741	551 175	564 327	620 821	631 629
Net profit before tax and dividends: life insurers (R millions)		45 067	45 373	11 766	48 731	19 848
Individual lapse ratio: life insurers	63.0	61.0	91.1	66.0	77.0	76.2
Gross written premiums: non-life insurers (R millions)	136 774	144 265	159 548	158 632	169 846	181 916
Combined ratio: non-life insurers (%)	77	97	97	113	119	98
Operating profit ratio: non-life insurers (%)	22.0	15.0	23.0	16.0	-14.4	14.0
Solvency and capital*						
Solvency capital requirement cover ratio (median): life insurers		1.9	2.0	1.9	1.7	1.7
Minimum capital requirement cover ratio (median): life insurers		4.3	4.2	4.3	4.2	4.7
Solvency capital requirement cover ratio (median): non-life insurers		1.8	1.8	1.9	1.8	1.5
Minimum capital requirement cover ratio (median): non-life insurers		3.9	4.0	4.4	3.8	3.7

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

Source: PA

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