FINANCIAL STABILITY REVIEW

First edition
2021

SOUTH AFRICAN RESERVE BANK

SARB 100 YEARS 1921–2021
A purposeful journey

The data and information used in this *Financial Stability Review* cover the period up to 1 April 2021. Therefore, the majority of quarterly data in this edition end at the fourth quarter of 2020, the majority of monthly data end at February 2021 and the majority of daily data end at 31 March 2021. Data may include own calculations made specifically for the purposes of this publication. The graph data used in this publication can be downloaded from the SARB website.

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www.resbank.co.za ISSN: 1811-2226

Printed by the Publishing Section of the South African Reserve Bank

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The provision of financial services has continued unabated, despite the operational and financial challenges caused by the COVID-19 pandemic.

The economy is recovering from the depths of the 2020 recession, but activity remains weak.

Loan defaults increased sharply last year, but signs of stabilisation are emerging.

Although profitability has fallen, large financial institutions remain well capitalised.

Some regulatory support measures have been removed amid the resilience of the financial sector to the 2020 economic downturn.

Debt in the economy is relatively elevated, suggesting that some deleveraging may be required, particularly in the public sector.

COVID-19 continues to pose financial stability risks, making the vaccine roll-out key to the macro-financial outlook.

The financial system is expected to remain stable over the foreseeable future.

The purpose of the *Financial Stability Review*

The primary objective of the South African Reserve Bank (SARB) is to protect the value of the rand in the interest of balanced and sustainable economic growth in South Africa. In addition to this, the SARB's function and mandate of protecting and enhancing financial stability in the Republic of South Africa is affirmed in the Financial Sector Regulation Act 9 of 2017 (FSR Act).

In pursuit of its financial stability mandate, and to promote a stable financial system, the SARB publishes the *Financial Stability Review* (*FSR*) twice a year. The publication aims to identify and analyse potential risks to financial system stability, communicate such assessments, and stimulate debate on pertinent issues. The SARB is not the sole custodian of financial stability, but it coordinates and contributes significantly towards a larger effort involving government, other regulators, self-regulatory agencies, organs of state and financial market participants. In line with the requirements of the FSR Act, both the Minister of Finance and the Financial Sector Oversight Committee (FSOC) provide comments on the *FSR* prior to publication.

Defining 'financial stability'

'Financial stability' refers to a financial system that espouses confidence through its resilience to systemic risks and its ability to efficiently intermediate funds.

Financial stability is not an end in itself, but is an important precondition for sustainable economic growth and employment creation.

Executive summary

The economy is recovering from the depths of the 2020 recession, but activity remains weak in some sectors. Gross domestic product (GDP) and employment growth rebounded in the second half of 2020, but both metrics remain well below 2019 levels. The economic outlook is also highly uncertain and will depend on the pace of the coronavirus disease 2019 (COVID-19) vaccine roll-out. This is particularly important for industries hardest hit by the pandemic, such as tourism.

In line with improving economic activity, asset prices have rebounded and the rate of loan defaults appears to be stabilising. The JSE Limited (JSE) All-Share Index has fully recovered the losses suffered in 2020 and house price growth has improved in recent months (achieving positive real growth for the first time since 2016). While the banking sector's loan defaults may not yet have peaked, the pace of increase slowed significantly in late 2020 amid signs that borrower debt-service capacity is improving. A cautiously optimistic outlook for credit risk is further underpinned by the fact that the value of credit, which was restructured as a result of COVID-19, has more than halved from its peak in mid-2020 (moderating to R293 billion in February 2021). Nevertheless, the potential for heightened future credit losses remains, particularly if interest rates increase or the economic recovery falters.

South Africa's large financial institutions have remained well capitalised despite lower profitability. South Africa's large banks and insurers experienced positive but significantly lower profits in 2020. As a result of ongoing profitability and reduced dividend payouts, at the end of 2020 the regulatory capital ratios for both the banking and insurance sectors remained at roughly the same levels as they were before the onset of the COVID-19 pandemic. This impressive outcome highlights the resilience of the financial sector to a large and unexpected shock.

Some of the regulatory relief provided to the financial sector is being removed. In a sign that the sector is well placed to withstand near-term challenges without extraordinary support, the Prudential Authority (PA) has proposed reinstating bank capital requirements at the pre-COVID-19 level and has adjusted its guidance on the payment of dividends by banks. The Loan Guarantee Scheme, which was implemented in response to COVID-19, is also being phased out. However, there are still a number of extraordinary policy

measures in place to ensure that financial stability remains intact. The most widely used policy measure that remains in place is the allowance for banks to restructure credit agreements for borrowers who have been affected by the pandemic, without the need to hold additional capital against those loans.[1]

High levels of public debt pose a material risk to domestic financial stability. Government's response to the pandemic, alongside weaker tax revenues, has resulted in a steep increase in public debt. COVID-19 occurred at a time of limited fiscal space as the government debt-to-GDP ratio had doubled in the decade leading up to the onset of the pandemic. National Treasury (NT) projects that public debt will stabilise at 89% of GDP by 2026. The cost of servicing this debt is set to account for a fifth of government revenue by 2024, almost double the average recorded during the 2010s. The longer-term deterioration in government's creditworthiness is further evidenced by a total of six sovereign credit rating downgrades by each of the three major rating agencies (Standard & Poor's, Moody's Investors Service and Fitch Ratings) since 2010. As foreign participation in the government bond market dropped during 2020, domestic financial institutions increased their exposure to government debt. Chapter 2 of this review provides a detailed analysis of the potential risks associated with the interconnections between the financial sector and government.

The financial system is expected to remain stable over the foreseeable future. The strength of the domestic financial system has been on display over the past year, as severe operational and financial challenges were successfully managed without major disruptions to the provision of financial services. This resilience is expected to remain an important mitigant against the materialisation of future risks. However, to avoid an erosion of resilience over time, a sustained economic recovery and gradual reduction of debt among vulnerable borrowers will be required.

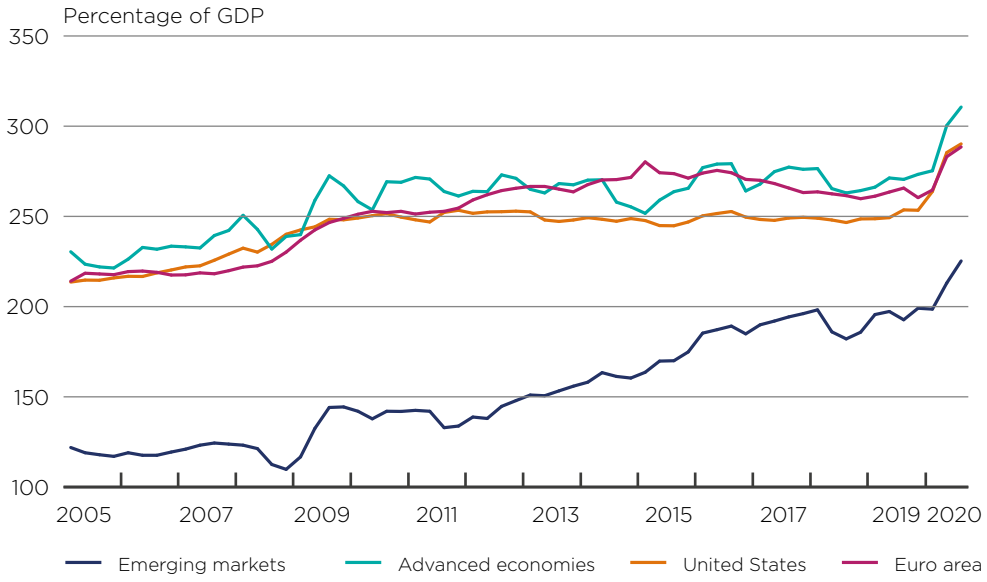
1 This allowance is subject to various conditions, as outlined in the following directive: https://www.resbank.co.za/en/home/publications/publication-detail-pages/prudential-authority/pa-deposit-takers/banks-directives/2020/9844

Chapter 1: Financial stability risks and system resilience

Risk assessment

The global economy is rebounding, but faces a large debt overhang. The International Monetary Fund (IMF) expects global growth to average 5.2% over the 2021–2022 period, reflecting a relatively strong recovery after the growth contraction of 3.3% recorded in 2020. However, as governments and private sector entities borrowed significantly to get through the adverse COVID-19 shock experienced in 2020, economies across the world now face debt burdens of a scale unparalleled in recent history (Figure 1). Borrowing costs are currently low, making this debt manageable in most cases. However, there is a risk that if interest rates increase swiftly from these low levels, debts will become more difficult to service.

Figure 1: Credit to the non-financial sector in various regions of the world



The non-financial sector includes general government, households and the non-financial corporate sector.

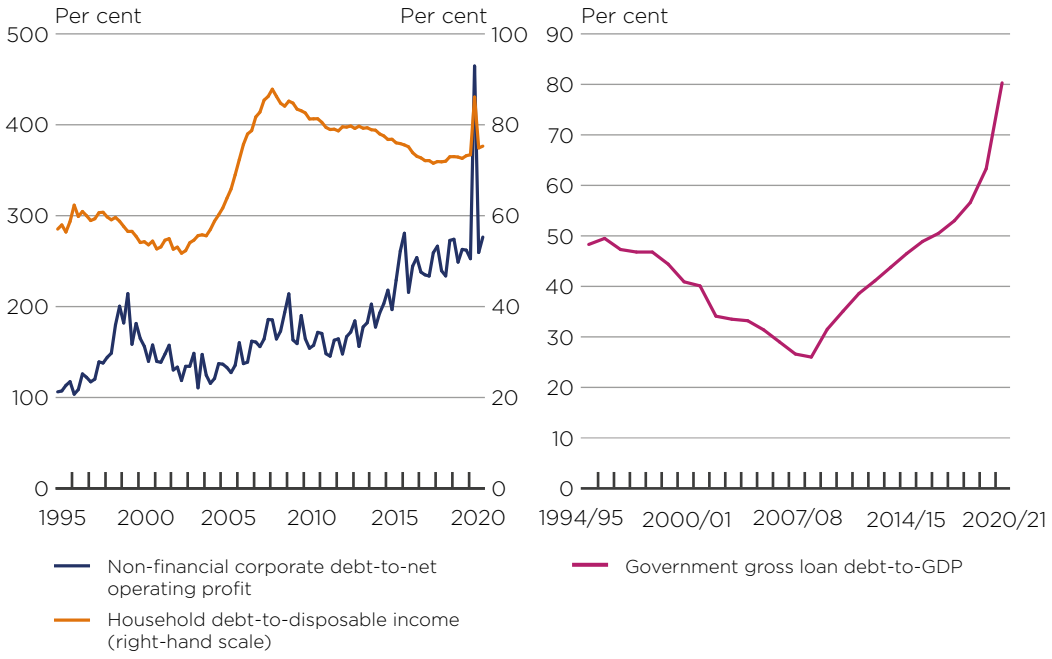
Sources: BIS and SARB

Debt has also increased strongly in South Africa, driven by the public sector. The debt of general government has grown faster than any other sector in South Africa over recent years, rising from below 30% of GDP in 2009 to slightly over 80% in March 2021 (Figure 2). Domestic non-financial corporate sector debt has steadily increased over the past two decades, reaching 276% of net operating profit at the end of 2020. This is the third highest quarterly observation in more than 25 years and well above the long-term average[2] of 177%. However, it is only a slight increase on the average over the past five years. Household debt has followed a different trajectory. After a steep run-up during the lending boom of the mid-2000s, household

2 The long-term averages referred to in this paragraph are calculated for the period 1995–2020.

debt peaked at close to 88% of annual disposable income in 2008. Following the global financial crisis and the introduction of the National Credit Act 34 of 2005, household debt gradually declined as a share of income. However, the debt ratio increased again in 2020 as a result of the impact of COVID-19, ending the year at 75%. Although it is below its 2008 peak, household debt remains above the levels recorded before the mid-2000s and exceeds its long-term average of 70% of disposable income.[3]

Figure 2: Non-financial corporate and household sector debt-to-income ratios (left) and government's debt-to-GDP ratio (right)



The non-financial corporate debt data only include bank debt.

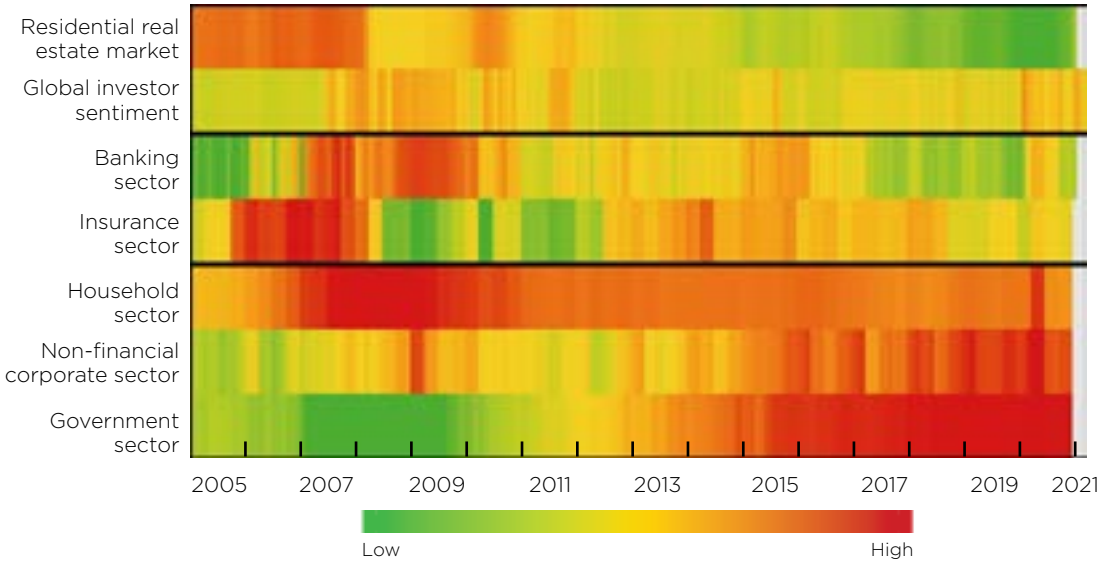
Sources: NT and SARB

The financial stability heat map depicts the vulnerabilities faced by various sectors of the domestic economy. The heat map is a visual representation of the evolution of these vulnerabilities over time.[4] In line with the discussion above, vulnerabilities in the corporate and government sectors are high, reflecting elevated debt levels and revenue pressures. Household vulnerabilities are somewhat lower, as debt is below its historical peak and debt-service costs are well below their long-term average (as a result of interest rate reductions in 2020). Despite experiencing increased pressure during 2020, vulnerabilities are lower in the financial sector due to relatively high solvency and liquidity buffers.

3 Additional information on the government's financial position and that of private sector entities is available in chapters 2 and 3 respectively.

4 For further details on how the heat map is constructed, see the first edition of the *FSR* of 2020.

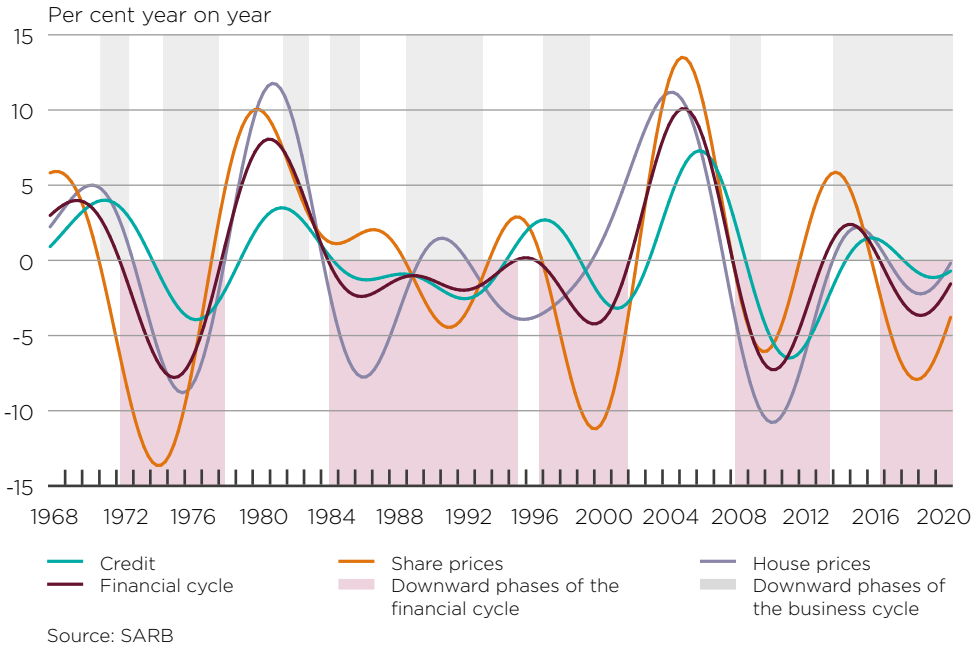
Figure 3: The financial stability heat map



Source: SARB

The financial cycle remains in a downward phase, but is showing signs of a recovery. The financial cycle is measured by the co-movement of a set of financial variables, including private sector credit, house prices and equity prices. Upward phases of the financial cycle occur when growth in asset prices and credit is strong. Hence, they are typically associated with a build-up of risk in the financial system. As the financial cycle has been in a downward phase for four years, there is no evidence of excessive growth in private credit or asset prices. However, this downward phase may be drawing to a close as the financial cycle is turning up from the trough reached in 2019.

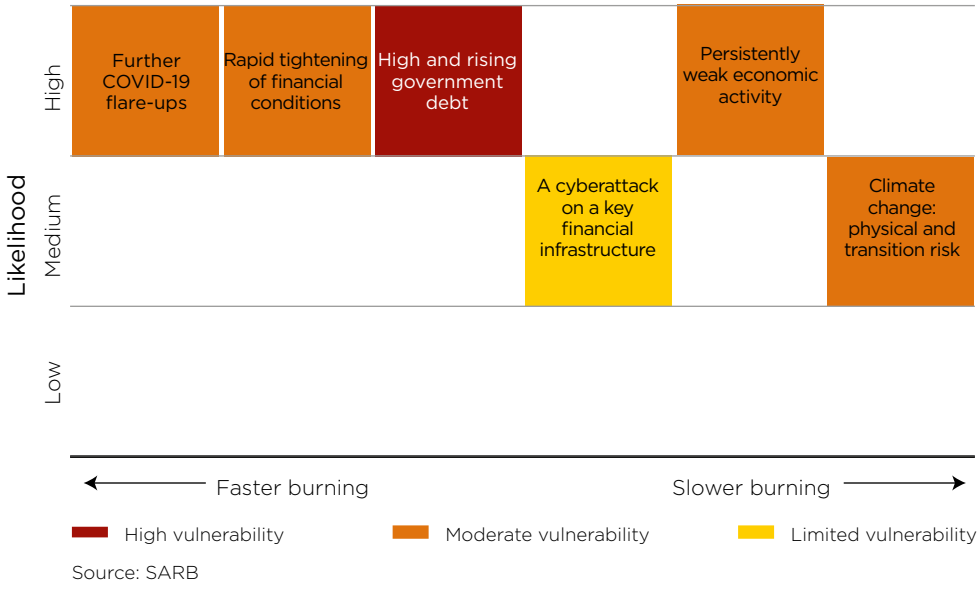
Figure 4: The South African financial cycle



Source: SARB

The risk assessment matrix (RAM) displays the primary risks to financial stability over a medium-term horizon. The SARB has recently made adjustments to the RAM to bring it in line with international best practice (Figure 5). The risks identified in the RAM are similar to those discussed in the previous *FSR*. However, the colours associated with each risk now indicate the vulnerability of the financial system to the risk, after accounting for any significant mitigating factors. Previously, the colours indicated the change in the intensity of the risk. This shift better reflects the SARB's focus, which is primarily on the impact on the financial system if a risk materialises, rather than the risk itself. Each of the risks in the RAM, as well as the vulnerability of the domestic financial system to the risk, is briefly discussed below.

Figure 5: Risk assessment matrix



Source: SARB

Further COVID-19 flare-ups

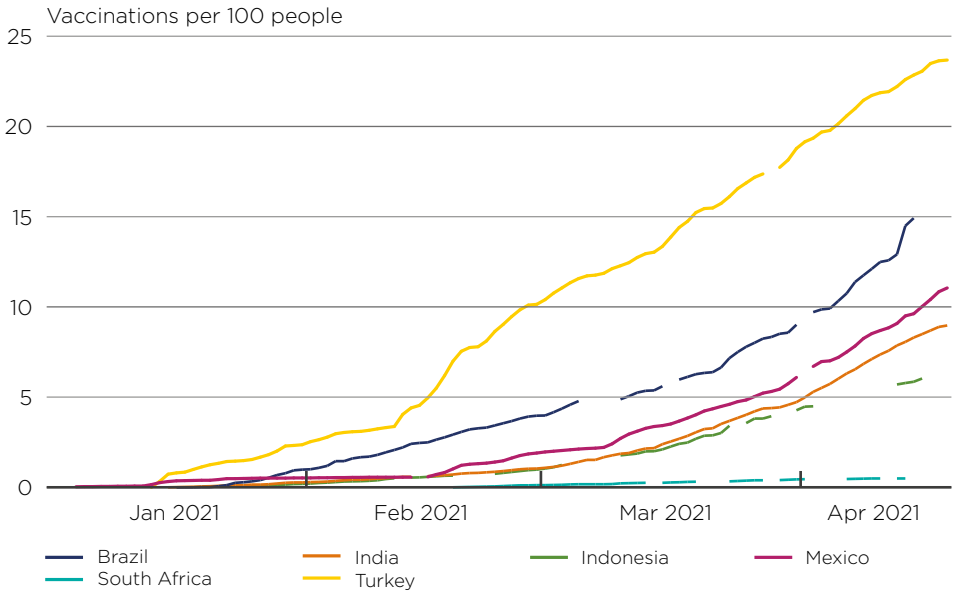
COVID-19 continues to pose a significant threat to financial stability. During 2020, South Africa's economy experienced its worst recession in 101 years, contracting by 7%. This was in large part driven by the pandemic and associated containment measures. While the virus remains a near-term threat to the economy, longer-term structural effects are also emerging which could persist long after the spread of the disease is contained. These include higher levels of debt and increased inequality.[5] COVID-19 has also had a material impact on the domestic financial sector. Banks have experienced an increase in funding cost spreads (see Box 1) and a sharp rise in loan defaults, while insurance companies have reported lower profits and rising claims on life insurance policies.[6] Meanwhile, certain financial markets became dysfunctional amid the wave of uncertainty linked to the initial spread of the virus in the first half of 2020.

5 See, for example, an article on the IMFBlog, 'How COVID-19 will increase inequality in emerging markets and developing economies', 29 October 2020. https://blogs.imf.org/2020/10/29/how-covid-19-will-increase-inequality-in-emerging-markets-and-developing-economies/

6 These impacts are discussed in more detail in Chapter 3.

There is a risk that the pandemic could continue well into 2022. While various advanced economies have successfully vaccinated a large share of their populations, vaccination rates among emerging market and developing economies are lower. Even among its emerging market peers, South Africa has been a laggard, having provided a vaccine to less than 0.5% of its population by mid-April 2021 (Figure 6). A slow rate of vaccination exposes the country to the risk of a third and possibly fourth wave of infections. Furthermore, the potential for the virus to mutate – and for variants to emerge against which current vaccines are less effective – suggests that individual countries may remain at risk of COVID-19 outbreaks until the virus is contained globally.[7]

Figure 6: COVID-19 vaccination rates in various emerging market economies



The data above indicate the percentage of adults who have received at least one vaccine dose.

Source: Global Change Data Lab, *Our World in Data*

Important mitigating policy measures have been put in place to address this risk. The SARB and other financial regulators have undertaken a range of measures to preserve financial stability in the face of the pandemic shock.[8] Moreover, financial institutions began 2020 with high capital and liquidity buffers, which left them well placed to absorb the effects of the initial economic contraction. But the virus could persist well into the future and may continue to have a substantial adverse effect on the economy in both the short and medium term. Therefore, the residual vulnerability of the financial sector to COVID-19 is regarded as moderate.

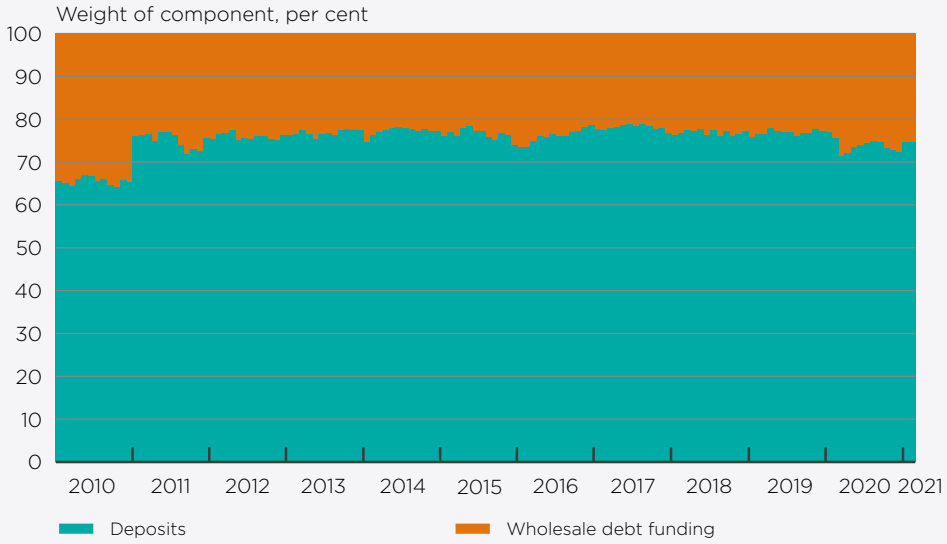
7 See, for example, the 'COVAX statement on new variants of SARS-CoV-2' released by the World Health Organization on 8 February 2021. https://www.who.int/news/item/08-02-2021-covax-statement-on-new-variants-of-sars-cov-2

8 These measures are discussed in more detail later on in this chapter.

Box 1: Bank funding costs amid COVID-19

Changes in bank funding costs affect bank profitability and influence the cost and volume of credit provided by the sector. Through these channels, funding conditions have important implications for financial stability. Bank funding costs depend on a range of factors, including supply and demand conditions in funding markets, monetary policy and financial regulation. The composition of bank funding in South Africa has remained relatively stable over recent years, with deposits representing more than 70% of the sector's liabilities (Figure B1.1). Short-term bank deposits have historically been remunerated at interest rates below market reference rates such as the three-month Johannesburg Interbank Average Rate (Jibar), the most common benchmark rate (Figure B1.2). By contrast, rates on medium- and long-term bank funding tend to be above the three-month Jibar.

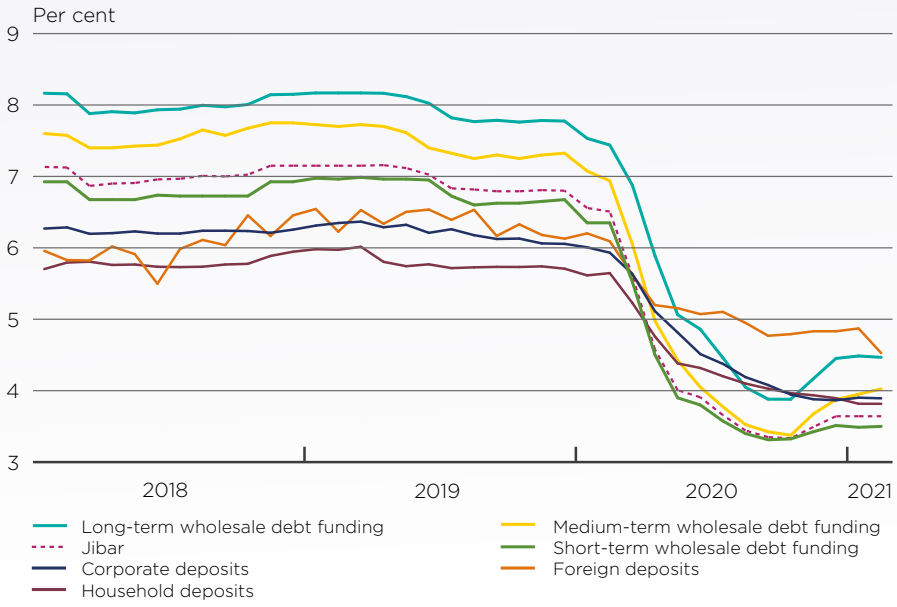
Figure B1.1: The composition of bank funding



Wholesale debt funding consists of repurchase agreements, collateralised borrowing, and foreign currency funding and debt securities issued by banks for a fixed term.

Source: SARB, BA900

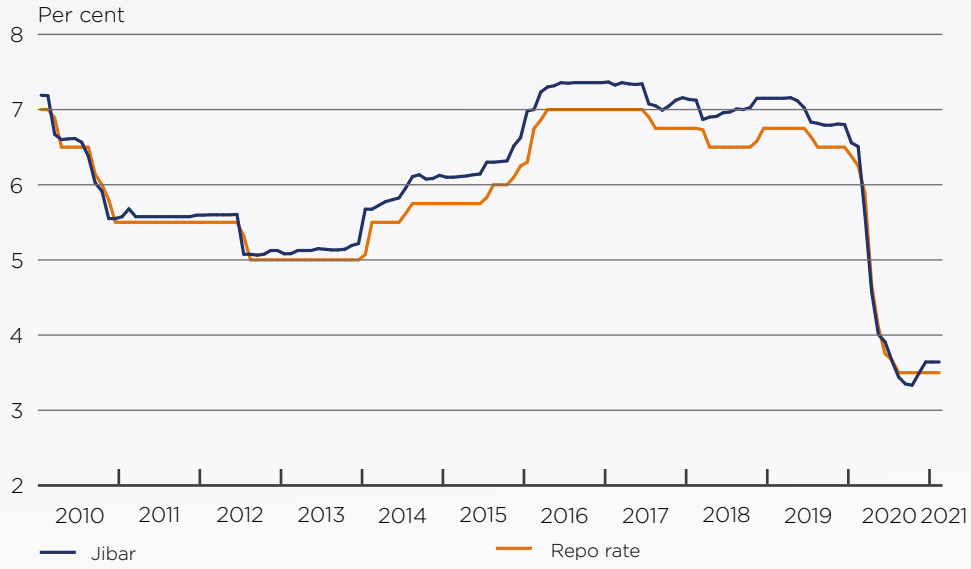
Figure B1.2: Interest rate comparison by funding component



Source: T Olds and D Steenkamp, *SARB Working Paper Series WP/21/05*, 12 April 2021

Prior to the emergence of COVID-19, short-term market interest rates were above the repurchase (repo) rate. This reflected expectations of potential monetary policy tightening as well as increased liquidity premiums. Following the impact of COVID-19, domestic interest rates fell and the spread between the three-month Jibar and the repo rate narrowed (Figure B1.3).

Figure B1.3: Spread between the Jibar and repo rate



Source: T Olds and D Steenkamp, *SARB Working Paper Series WP/21/05*, 12 April 2021

Bank funding costs have not matched the fall in the repo rate since the emergence of COVID-19. The relative cost of raising deposits has increased, as deposit rates have not fallen by as much as the repo rate and other money market rates (including interbank lending rates). This means that while aggregate funding costs have fallen in absolute terms, funding spreads have increased when expressed relative to maturity-matched market reference rates (Figure B1.4). The implication is that funding conditions for banks have not eased to the same extent as recent monetary policy adjustments.

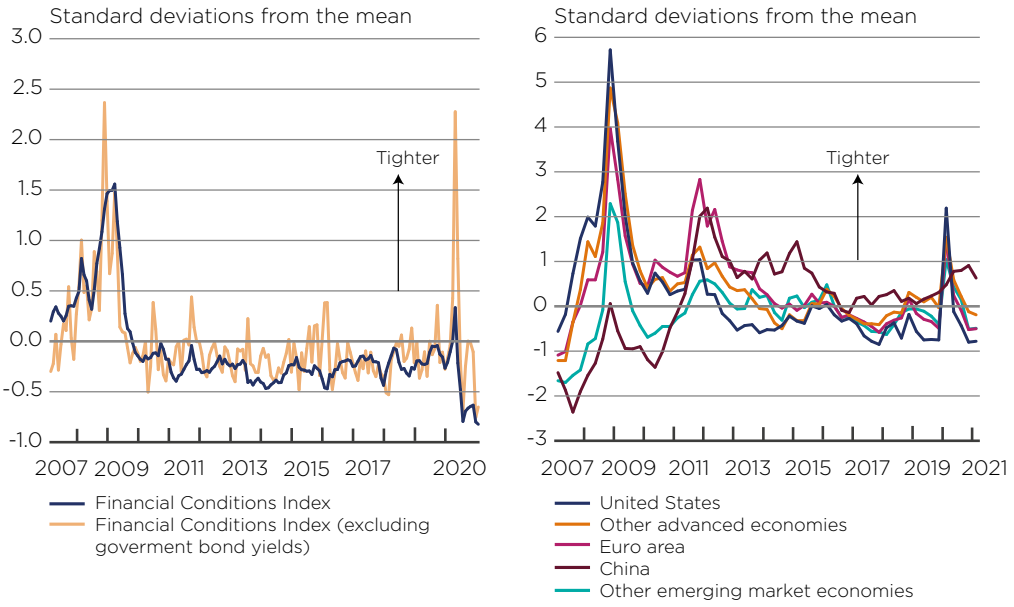
Figure B1.4: Aggregate weighted average bank funding cost spread over the Jibar

Source: T Olds and D Steenkamp, *SARB Working Paper Series WP/21/05*, 12 April 2021

A rapid tightening of financial conditions

Domestic financial conditions are very loose at present. Financial conditions in South Africa tightened significantly in March 2020 as heightened risk aversion in financial markets resulted in falling asset prices, higher borrowing costs and exchange rate weakness (all of which are associated with tighter conditions). Since April 2020, the SARB's Financial Conditions Index (FCI)[9] has adjusted sharply lower, reaching nearly one standard deviation below its mean in December 2020. This is the lowest level on record and is indicative of very loose financial conditions (Figure 7). The lower FCI level reflects the policy and operational measures introduced by the SARB in 2020 (including sizable repurchase (repo) rate cuts and bond market interventions), as well as significant monetary policy easing undertaken by advanced economy central banks, both of which supported asset prices and liquidity in domestic financial markets.

Figure 7: The Financial Conditions Index for South Africa (left)* and various other regions (right)



* During 2020, the government bond yield curve steepened. This has historically been linked to a positive economic outlook and rising optimism in markets; hence, in the FCI it is associated with loosening financial conditions. However, the SARB is of the opinion that the COVID-19 episode produced a confounding signal, as the steeper yield curve was likely driven by rising fiscal risk rather than optimism about the economy. For this reason, Figure 7 also includes an FCI that strips out bonds yields. This adjusted FCI shows much greater stress during the first half of 2020, but has converged towards a similar level as the headline FCI recently.

Sources: IMF and SARB

Financial conditions tend to be mean-reverting over time. As financial conditions are particularly loose in South Africa and internationally, it is likely that there will be some degree of tightening in the future. It remains to be seen whether that tightening will be gradual or rapid and if there will be an overshooting episode. Both global and domestic factors have a bearing on South Africa's FCI. An important factor domestically will be the quantum and pace of adjustments to the repo rate, which influences the borrowing costs for

9 The SARB FCI is a composite index of asset prices and funding costs across the domestic and global economy. The FCI measures the ease of accessing finance and links the financial variables within it to a future outlook for economic activity. An increase in the FCI is indicative of a rising cost of funding and thus tighter financial conditions. While loose financial conditions are generally supportive of short-term economic growth, they may also be associated with increased risk-taking in financial markets.

households and businesses across the economy. The SARB's latest projections indicate that the repo rate is likely to rise gradually over the medium term as it is currently well below its neutral rate.[10] Global factors are also likely to contribute towards tighter domestic financial conditions over time. In particular, investors are pricing in a strong recovery in United States (US) economic activity and inflation over the medium term, which has led to an increase in US government bond yields (Figure 8). Rising US yields tend to make emerging market financial assets less attractive. This trend has started to place downward pressure on capital inflows into South Africa and various other emerging markets. If it persists, it could result in currency weakness, inflation concerns and higher domestic interest rates. This occurred in 2013 when US Federal Reserve officials discussed tapering asset purchases undertaken to support the economy after the global financial crisis. That episode, colloquially known as the 'taper tantrum', caused rapid capital outflows from emerging market economies as US yields increased.

Figure 8: The US 10-year government bond yield and market-implied five-year-ahead inflation expectations

Source: Bloomberg

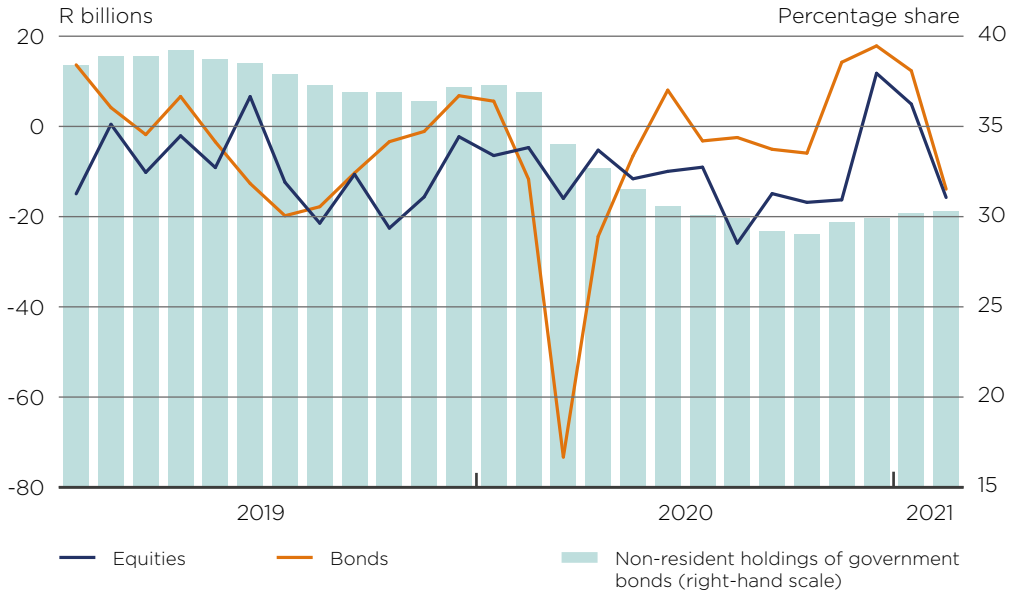
Non-resident capital inflows have been muted over the past two years, which may limit the adverse impact of a further outflow shock. The probability of experiencing a severe drop in capital flows increases for countries that had previously received strong inflows.[11] The financial stability risks associated with a capital flow sudden stop also tend to be greater under conditions of rampant prior inflows. The reason is that elevated foreign inflows may give rise to asset price bubbles, strong credit growth and increased risk-taking in the financial sector. Even prior to the sharp drop in capital flows caused by COVID-19, South Africa had experienced weak net portfolio investment from foreigners (Figure 9). After a sharp decline in March and April 2020, foreign purchases of domestic financial assets gradually recovered, but have remained muted by historical standards. While a lower starting point may limit the quantum of any future decline in capital flows, the risks associated with such an episode could still be material, as loose financial conditions are

10 For more detail, see the SARB's latest monetary policy projections and assumptions: https://www.resbank.co.za/en/home/publications/statements/mpc-statements

11 B Eichengreen and P Gupta, 'Managing sudden stops'. *World Bank Policy Research Working Paper 7639*, April 2016.

currently an important source of support for the weak economy. If financial conditions do tighten sharply, the debt-service challenges faced by many private sector borrowers may be exacerbated, while government's relatively large funding requirements could become more costly to source.

Figure 9: Net purchases of domestic bonds and equities by non-residents



Source: SARB

High and rising government debt

There are various linkages between government and the financial sector which could pose risks to financial stability in the current environment of high and rising public debt. This is known as the financial sector-sovereign nexus. Given the significance of this threat, as well as its complexity, Chapter 2 in this *FSR* is dedicated to exploring the issue in more detail.

A cyberattack on a key financial infrastructure

A cyberattack is a type of operational risk resulting from a breach or disruption to an information technology (IT) system. Cyberattacks remain a clear and present danger to the availability of financial services, the functioning of financial infrastructures and the confidentiality of data, creating both reputational and direct financial risks. If these attacks are sufficiently large in scale, they can have adverse implications for the broader economy and may cause financial instability. As reliance on IT has grown in the wake of COVID-19, new attack paths have emerged. A number of high profile international cyberattacks have occurred recently, undertaken by both state and private attackers. One prominent example is the hack on Microsoft email software that occurred early in 2021 and is estimated to have affected tens of thousands of businesses and public sector entities, providing the hackers with access to confidential emails. Among those affected was the European Banking Authority (EBA), which is the European Union's banking sector regulator.[12] However, this attack did not have a material impact on the domestic financial sector.

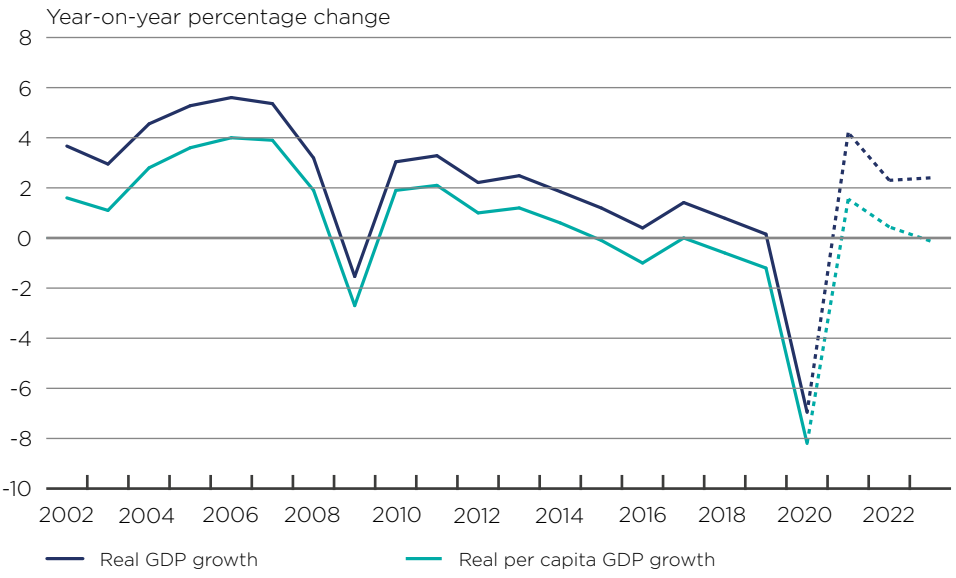
12 See the EBA press release of 7 March 2021 for further details: https://www.eba.europa.eu/cyber-attack-european-banking-authority

Recent research suggests that the financial sector faces a larger number of attacks compared to other sectors globally. This research from the Bank for International Settlements (BIS)[13] finds that, despite the large number of attempted attacks, the financial sector actually faces lower average costs from cyberattacks due to its substantial investments in cybersecurity. South Africa's systemically important financial institutions (SIFIs) have followed global best practice by enhancing their IT security. This has kept the losses associated with cyber incidents low relative to other risks (such as credit and market risks). Consequently, the SARB views the residual financial stability risk associated with cyberattacks as relatively low. Nevertheless, as reliance on third-party IT service providers has grown, the risk associated with an attack on these providers has increased. This risk is accentuated by the fact that many large financial intermediaries rely on the same third-party firms for key services. While domestic financial institutions have been relatively successful in addressing cyber-risks to date, even one successful attack could be damaging to the financial sector. For this reason, cyber-risk remains on the RAM.

Persistently weak economic activity

Prior to the impact of COVID-19, domestic economic growth was on a downward trend. Real GDP growth has been moderating since the mid-2000s and was only 0.2% in 2019 (prior to the onset of the COVID-19 pandemic). On a per capita basis, GDP has not grown since 2014 (Figure 10). These poor outcomes reflect structural challenges in the economy, such as infrastructure shortages and delays in passing critical reforms across various network industries. As discussed in the next chapter, disappointing economic growth has contributed to government's increased debt burden. The trajectory of the economy also affects the capacity of borrowers to service existing debts.

Figure 10: Real GDP growth on an aggregate and per capita basis



The dotted lines reflect forecasts: the SARB's forecast is used for GDP growth and the IMF's forecast for per capita GDP growth.

Sources: IMF and SARB

13 | Aldasoro, et al., 'The drivers of cyber risk', *BIS Working Papers 865*, 20 May 2020.

Large financial institutions are vulnerable to this risk due to their high exposure to the South African economy. Approximately 85% of South Africa's systemically important banks' loans are to South African domiciled entities. Therefore, domestic economic developments have a large bearing on the credit risk exposures of these institutions. The risk of weak economic activity is partially mitigated by strong supervisory and regulatory frameworks, large capital buffers and a diversification of product lines by the large institutions.

Climate change: physical and transition risks

Both the physical and transition risks associated with climate change are material in South Africa. Physical risks are caused by damage to property resulting from extreme weather events linked to climate change. Transition risks reflect the global move towards less carbon-intensive activities and the impact this could have on South Africa's economy and financial system. Transition risks are growing as global policy efforts to curb carbon emissions are picking up pace. In particular, the new US administration re-joined the Paris Agreement, a legally binding international treaty on climate change, in February 2021, and recently outlined plans for the US to achieve carbon neutrality by 2050 (matching the time frame set by the European Union). Such targets have also been set by emerging market economies, most notably China (the world's largest consumer of raw commodities), which aims to be carbon neutral by 2060. Attempts to reduce carbon emissions could meaningfully impact South Africa because there is a high level of carbon intensity of many domestically produced goods.[14] Financial institutions that have invested in, or lent to, industries exposed to transition risks could incur losses if global demand for the output produced by these industries were to decline sharply.

Government is exposed to a large share of the climate risks. Transition risks are sizable for the government as various state-owned enterprises (SOEs) have invested heavily in infrastructure that is geared towards carbon-intensive activities (such as coal power plants as well as port and rail facilities designed to transport fossil fuels). Such infrastructure may face reduced demand, which could result in the need for early replacement.[15] This could impose costs which may ultimately need to be borne by government. Physical risks are also a challenge for government. This was most recently evidenced by the financial distress of the Land Bank (an SOE) whose high level of non-performing loans was caused, in part, by 'sustained droughts'.[16]

A sustainable finance working group led by NT recently published a technical paper.[17] The paper's focus is on harnessing the opportunities and containing the financial sector risks associated with climate change. The working group, of which the SARB is a member, has a adopted a number of key recommendations, including developing guidance on climate risk disclosures by the financial services industry, adopting a taxonomy for sustainable finance initiatives, and disclosing progress in climate risk management as part of the

14 For further details, see the second edition of the *FSR* of 2020.

15 M Huxman, M Anwar and D Nelson, 'Understanding the impact of a low carbon transition on South Africa'. Climate Policy Initiative, 26 March 2019.

16 See National Treasury, *Budget Review 2021*.

17 For further details, see the Sustainable Finance Initiative website: https://sustainablefinanceinitiative.org.za

supervision of financial institutions. The technical paper outlines important objectives for both the financial sector and its regulators to support the transition to a lower-carbon economy.

The SARB is currently developing new tools to determine the degree to which domestic financial institutions are exposed to climate risks. Disclosures of climate-related exposures remain incomplete in South Africa, which has made a comprehensive analysis of the risks faced by the financial system challenging. The SARB is working with banks to develop climate-related stress tests that measure the risks faced by the sector under different plausible scenarios.

Resilience statement

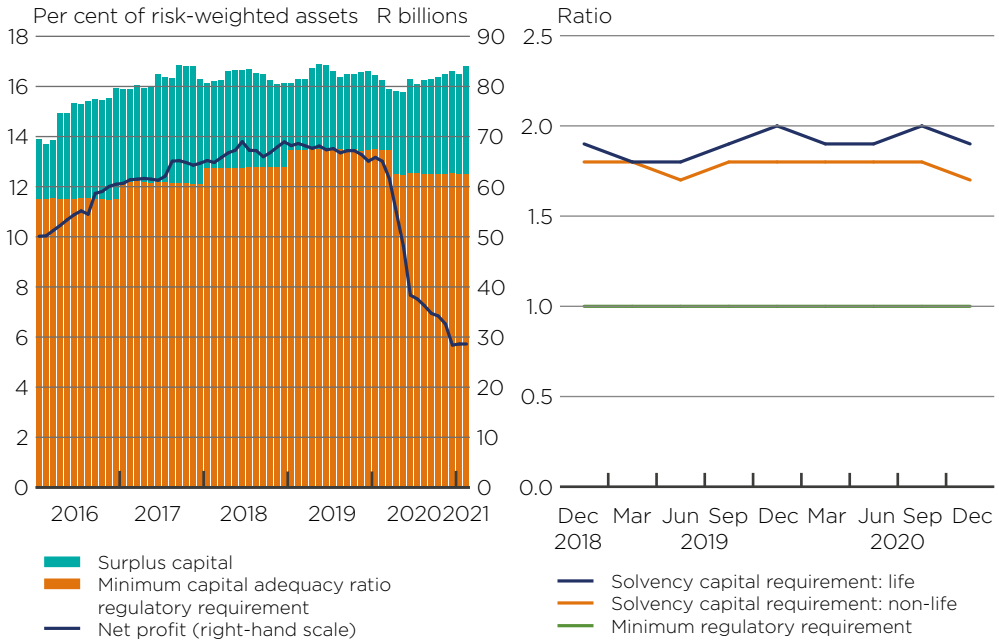
A year after the emergence of COVID-19 in South Africa, the financial system remains strong and continues to function effectively. Over the past year, financial institutions have faced operational challenges, heightened financial market volatility, increased credit risk and sharp changes in demand for various products. Nevertheless, the provision of financial services has remained largely unaffected by COVID-19. Financial institutions have also worked closely with regulators and government to give effect to crucial interventions aimed at supporting the economy. Importantly, the financial sector has been a source of stability rather than vulnerability, as it entered this extraordinary period in a sound financial position with large capital and liquidity buffers.

South Africa's large banks and insurers have maintained high levels of capitalisation despite lower profitability. Both the banking and insurance sectors ended 2020 with levels of capitalisation similar to those that they began the year with (Figure 11). The stress test conducted in 2020 confirms that South Africa's systemically important banks are expected to maintain a capital adequacy ratio (CAR) above the minimum requirement, even under a severe stress scenario.[18] The actual experience of the sector has been better than the baseline forecast of the 2020 stress test. This strong result reflects a number of factors, including that net interest margins held up better than expected and that regulatory adjustments to the treatment of loans restructured as a result of COVID-19 reduced the amount of capital required to be held against these loans.[19] Profitability across both the banking and insurance sectors has been materially lower, but remains positive, which has bolstered capital levels. As a result of the strong financial position of large financial institutions and the comprehensive regulatory framework, the financial sector is expected to remain resilient to the risks outlined in this edition of the *FSR*.

18 For further details, see the second edition of the *FSR* of 2020.

19 Many of these restructured loans are now rolling off, limiting any risk associated with this regulatory concession. See Chapter 3 for more details on the loan restructures.

Figure 11: Capital adequacy ratios of the domestic banking (left) and insurance (right) sectors



Sources: PA and SARB

Share prices, including those of financial firms, are recovering. The JSE All-Share Index is currently trading well above the level at which it started in 2020. The share prices of financial firms have rebounded substantially off their 2020 lows, signalling improving prospects for these entities. However, the JSE Financials Index remains about 20% below its pre-COVID-19 level, highlighting the ongoing challenges that financial institutions face in the current economic environment.

Figure 12: Equity prices of the JSE All-Share Index and Financials Index

Sources: Bloomberg and SARB

Policy actions undertaken to enhance financial stability

Since March 2020, the SARB and the PA have undertaken a range of policy interventions to enhance financial stability. These interventions cut across a variety of policy areas and, in many cases, their aims extend beyond financial stability alone. These interventions included:

- the increased provision of liquidity by the SARB to the banking sector;
- government bond purchases by the SARB in the secondary market to address market dysfunction;
- an easing of commercial bank capital requirements, specifically a reduction in the Pillar 2A capital requirement by 1 percentage point of risk-weighted assets (RWA) for all banks;
- an easing of commercial bank liquidity ratio requirements, specifically a reduction in the liquidity coverage ratio (LCR), from 100% to 80% for all banks;
- a differentiated regulatory treatment of loans restructured as a result of COVID-19;
- the introduction of a Loan Guarantee Scheme administered by the SARB, but with risk shared between government and the commercial banks;
- guidance on the payment of dividends and bonuses by commercial banks, specifically that no dividends (on ordinary shares) or bonuses to material risk takers should be paid out; and
- a reduction in the repo rate during 2020 by a total of 300 basis points (to a level of 3.5%). While this is primarily a monetary policy response to muted inflation and weak economic activity, lower interest rates have also supported activity in the financial sector and the debt repayment capacity of borrowers.

These policy actions have supported the flow of credit and the broader economic recovery from COVID-19, while maintaining the soundness and functioning of the domestic financial system. Each one was discussed at length in the second edition of the *FSR* of 2020. Readers are encouraged to consult that publication for specific information about the justification for, and impact of, each of these policy interventions. In this edition of the *FSR*, only material adjustments to the pre-existing policy interventions are discussed.

Commercial bank capital requirements and dividend payment guidance: returning to normal

The PA is seeking to normalise bank capital requirements by 2022. During the onset of the COVID-19 pandemic last year, the PA made provision for a reduction in the minimum capital requirement for all banks by 1 percentage point of RWA. This came through a reduction in the Pillar 2A requirement (also known as the systemic risk buffer) from 1% to 0% of RWA. This temporary reduction was intended to provide banks with additional scope to lend into the real economy, even if the banking sector faced downward pressure on its capital adequacy levels. As the economy is

expected to recover this year, and with bank capital adequacy well above minimum requirements, the PA has proposed that the Pillar 2A capital buffer be reinstated at 1% of RWA from January 2022 onwards.[20]

The PA has also relaxed its previous guidance requesting that banks avoid paying dividends on ordinary shares or bonuses to material risk takers. In conjunction with the decision to lower bank capital requirements in 2020, the PA advised banks not to pay out dividends on ordinary shares or bonuses to material risk takers. This was to ensure that bank capital is preserved to absorb any potential losses incurred as a result of COVID-19 as well as to support additional lending. However, with bank capital levels having remained stable, the PA recently softened its guidance on the payment of dividends and bonuses.[21] Banks are required to ensure that the benefits of the regulatory relief measures provided by the PA are not utilised for the payment of bonuses and dividends. Banks have also been encouraged to plan ahead to ensure that capital remains adequate in the current environment.

The Loan Guarantee Scheme winds down

The Loan Guarantee Scheme (LGS), which was implemented in response to COVID-19, is in the process of being closed for new applications. New applications for the LGS will be closed in mid-July 2021. The LGS has facilitated the provision of more than R18 billion in loans. Loans provided under the scheme are partially guaranteed by government, but the risk of non-repayment is shared with the banking sector. The intention of the LGS was to provide funding to businesses affected by COVID-19, in particular to support the payment of operating expenses. The LGS has seen a lower take-up than expected, largely as a result of the reluctance of distressed companies to take on additional credit. Repayment of the loans provided under the scheme will take place over five years.

Recent decisions taken by the SARB's Financial Stability Committee

The Financial Stability Committee (FSC) has opted to maintain the countercyclical capital buffer (CCyB) at 0%. The CCyB is a key macroprudential tool of the FSC. Through adjustments in the buffer, the FSC can require the banking sector to hold additional capital over and above the minimum requirements set by the PA. The primary intention of the CCyB is to ensure that banks build up additional capital during upswings in the financial cycle (i.e. at times when credit growth exceeds its long-term trend). As the economy is currently in a downturn, it was deemed appropriate to maintain the CCyB at 0%.

20 See the proposed directive issued by the PA on 18 February 2021. https://www.resbank.co.za/content/dam/sarb/publications/prudential-authority/pa-documents-issued-for-consultation/2021/Proposed%20directive_Capital%20Framework.pdf

21 See PA Guidance Note 3/2021 of 18 February 2021. https://www.resbank.co.za/content/dam/sarb/publications/prudential-authority/pa-deposit-takers/banks-guidance-notes/2021/G3%20-%202021%20Distribution%20of%20dividends%20on%20ordinary%20shares%20and%20payment%20of%20cash%20bonuses%20to%20executive%20officers.pdf

The Financial Sector Laws Amendment Bill (FSLAB) will designate the SARB as South Africa's resolution authority for failing financial institutions. To enable the SARB to execute its resolution mandate, the FSC has established a Resolution Policy Panel (RPP). The RPP functions as a subcommittee of the FSC and considers issues related to the development of resolution policies and requirements. Once the FSLAB is promulgated, the RPP will also assist the SARB with the review of resolution plans and resolvability assessments, and it will advise the Governor on the orderly resolution of designated institutions.[22]

The FSC has approved the issuance of four discussion documents pertaining to resolution. The first two were approved in 2020, namely (i) the 'Group structure requirements for resolution purposes'[23]; and (ii) 'A methodology to determine which insurers are systemically important within the South African context'.[24] The other two documents that were approved in February 2021 are: 'Proposed principles and requirements for Flac instruments' and 'Proposed requirements for funding in resolution'. Of the two most recent documents, the former sets out the SARB's proposals on the characteristics, calibration and implementation period for Flac[25] instruments. The latter sets out the proposed requirements for designated institutions to estimate, assess and develop ex ante funding arrangements needed to preserve their critical functions in a resolution. It also outlines the proposed arrangements to be put in place by the SARB as a participant in the financial safety net. The policy proposals in these discussion documents take into account applicable international standards as well as country-specific characteristics, and are aimed at improving the resolvability of designated institutions. Once the FSLAB is promulgated, these discussion documents will be adapted into regulatory instruments.

22 A 'designated institution' as defined in the FSLAB, includes banks, non-bank SIFIs, holding companies and subsidiaries of the holding companies not excluded by the Governor.

23 For further information, see https://www.resbank.co.za/en/home/publications/publication-detail-pages/media-releases/2020/10278

24 For further information, see https://www.resbank.co.za/en/home/publications/publication-detail-pages/media-releases/2020/10294

25 In terms of the FSLAB, the SARB may require designated institutions to issue instruments, termed 'Flac instruments', that will be specifically earmarked for bail-in to recapitalise a bank in resolution. The Flac discussion paper sets out the proposed characteristics and calibration requirements for these instruments.

Box 2: A methodology to determine which insurers are systemically important in South Africa

By law, the Governor of the South African Reserve Bank (SARB) may designate systemically important financial institutions (SIFIs). The methodology to assist with the identification of banking SIFIs was published in February 2019.[1] In October 2020, the SARB published a discussion document setting out the proposed methodology for the identification of insurer SIFIs.[2] Subsequent to the publication, public comments were received and are being considered to identify possible amendments to the methodology. The South African approach to determining insurer SIFIs is based on the requirements of the Financial Sector Regulation Act 9 of 2017 (FSR Act), guidance by the international community as well as the approach followed to identify systemically important banks. Table B2.1 lists the indicators and their weightings (as they currently stand) used to identify potential SIFI insurers in South Africa. Each broad indicator is composed of various sub-indicators. Owing to the differences in their business models, the indicators distinguish between life and non-life insurers.[3] The weightings of the sub-indicators are also adapted to reflect their relevance to the insurer type (life or non-life) and business model.

Table B2.1: Indicators and weightings*

Indicator	Weighting
Size	40%
Interconnectedness	30%
Substitutability	20%
Complexity	10%

* The weightings in the table indicate the sum of all the sub-indicator weightings used. For example, there are five sub-indicators used for the size indicator, and between these five sub-indicators, the overall weighting of the size component is 40%.

The size indicator has a high weighting due to the greater impact that the failure of a large insurer may have on the financial system. This could include the possible negative effect on the broader economy and financial markets, and confidence in the insurance industry. Furthermore, the larger the institution, the higher the number of policyholders and employees that may be adversely affected by its failure.

Interconnectedness also has a high weighting and is measured through an insurer's exposure to other financial institutions. The degree to which a financial institution is linked or connected to other parts of the financial system determines the channels through which, and the speed at which, any distress could spread to the rest of the system.

The substitutability of a financial institution, together with its product and service offering, is another factor that can affect its systemic importance. The less substitutable a financial institution is, the more systemically important it becomes, especially if the functions it performs are deemed to be critical to the functioning of the wider economy.

The systemic impact of a bank's failure is influenced by the complexity of its business model, organisational and group structure, and operating model. The greater a financial institution's complexity, the more difficult it becomes to resolve in the event of failure. Therefore, the disruption to the financial sector could be more severe as complexity grows. In addition, the more complex an insurer's operations, the more difficult it becomes to assess the exact level of its systemic risk.

No quantitative methodology is able to capture all potential risks. Institutional risks may be more systemic than indicated by the standard methodology, and regulators often have qualitative information that cannot easily be incorporated into this methodology. Hence, there should be room for judgement to be applied by the SARB Governor to ensure that all areas and risks are sufficiently considered. Section 29 of the FSR Act provides the Governor with the ability to use his/her discretion when making the determination of a SIFI.

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1 Information on the banks that were designated as SIFIs, as well as the approach to designation, was set out in the second edition of the *FSR* of 2019.

2 Refer to the published methodology at https://www.resbank.co.za/en/home/publications/publication-detail-pages/media-releases/2020/10294

3 For example, the size indicator has various sub-indicators and, depending on the type of insurer, the weighting of a sub-indicator may be zero. For example, the total assets sub-indicator is a better indicator of size for life insurers than for non-life insurers.

Chapter 2: The financial sector-sovereign nexus

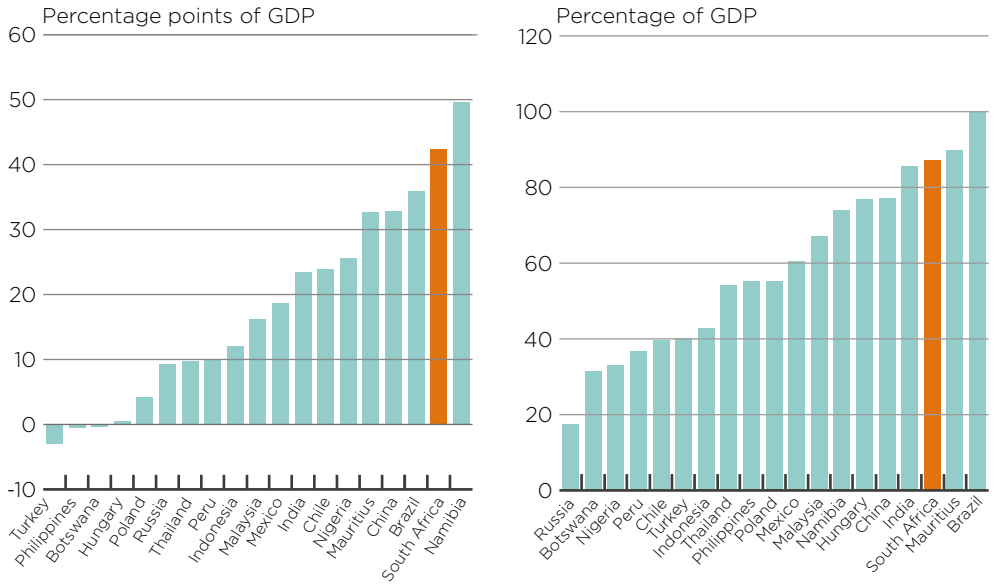
Introduction

The interconnections between the financial sector and the sovereign present a rising systemic risk in South Africa. While there have always been large dependencies between these two sectors, a few key developments have underpinned the emerging financial stability risk in this area. First and foremost, the high and rising level of public debt is exposing the financial sector to both credit and market risk, while also weighing on the perceived creditworthiness of the financial sector. Second, government's borrowing requirements and spending patterns are putting upward pressure on domestic interest rates, with adverse implications for investment activity in South Africa. Third, there are channels of risk moving from the financial sector to government. In particular, if any banks face financial challenges resulting in the need for public sector support, this could place further pressure on public finances. This chapter provides an overview of the current fiscal position and discusses the three main channels of systemic risk transmission between the financial sector and the sovereign.

The fiscal position

The combination of anaemic GDP growth, high and rising public debt as well as increasing debt-service costs poses a material risk to the sustainability of public finances. Figure 13 depicts the sharp increase in government debt that South Africa has experienced over the past decade, bringing its debt burden above that of most of its peer emerging market economies. The 2021 National Budget set a target of stabilising government debt at 89% of GDP in 2025/26. This is a slightly lower level than the target of 95% of GDP set by the *2020 Medium Term Budget Policy Statement*. However, it remains well above the debt stabilisation target of 60% of GDP set as recently as the 2019 National Budget (prior to the impact of COVID-19).

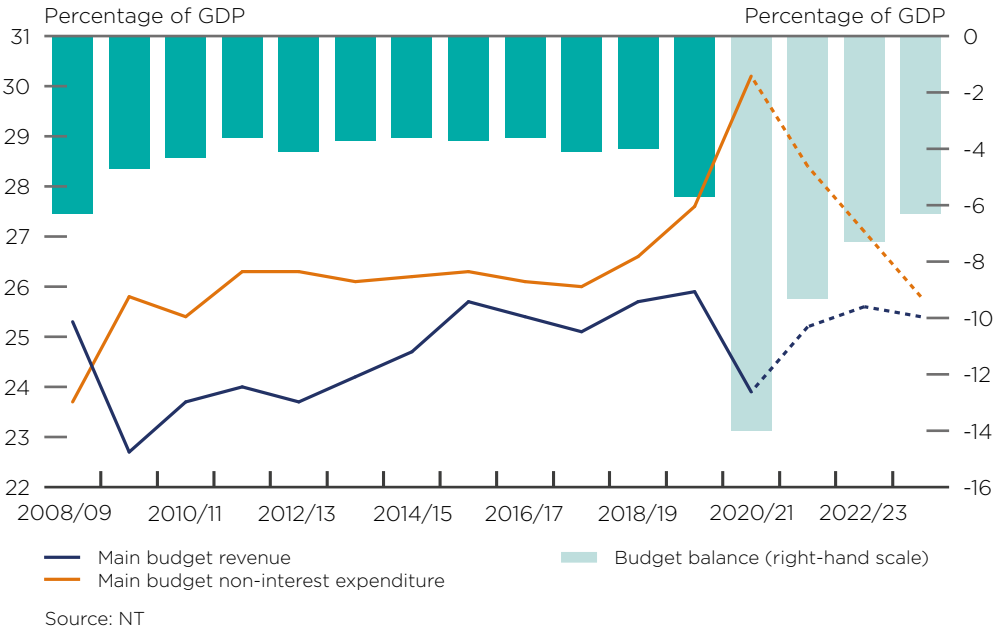
Figure 13: The change in gross government debt in 2010–2020 (left) and the projected level of gross government debt in 2023 (right)



Source: IMF

South Africa entered the COVID-19 period with limited fiscal space due to the sizable budget deficits recorded over the past decade. Government has not achieved a primary budget surplus[26] since the 2008/09 fiscal year as non-interest expenditure has consistently exceeded revenue (Figure 14). The COVID-19 pandemic has exacerbated pre-existing weaknesses in public finances as it has resulted in reduced tax revenues and increased spending requirements on items such as healthcare and social security.

Figure 14: Government's budget balance, revenue and expenditure

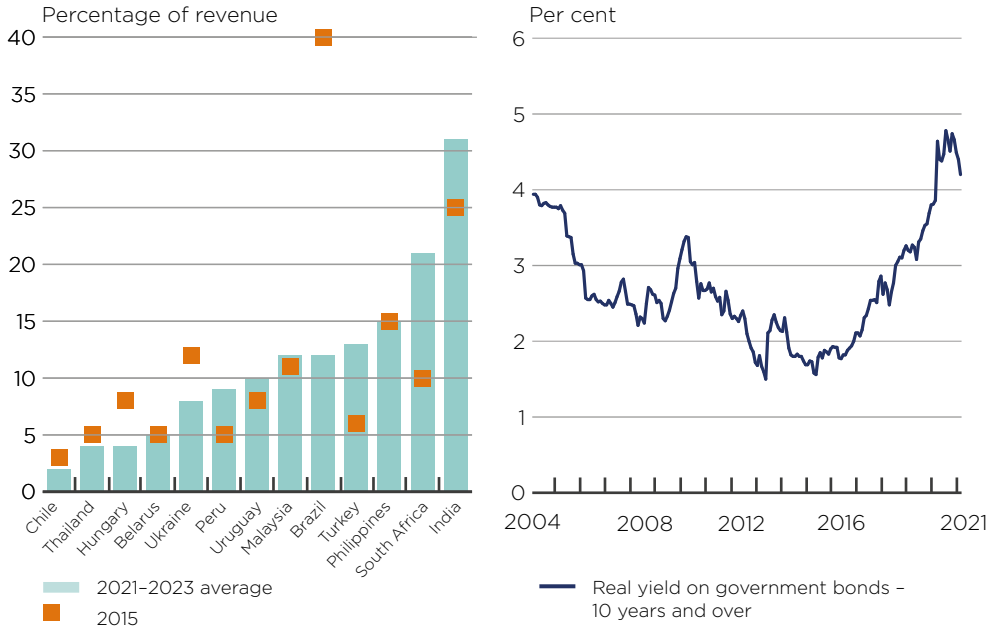


Source: NT

26 The primary budget balance measures the difference between revenue and non-interest expenditure. A primary surplus is achieved when the former exceeds the latter.

As a consequence of the increasing level of public debt, debt-service costs are consuming a growing share of expenditure. Debt-service costs are the fastest growing item in the 2021 National Budget, projected to increase by an annual average of 13.3% over the next three years. As a result, servicing debt will account for 20% of the main budget revenue by the end of the current fiscal year, which is roughly double the share it accounted for in 2015. This implies that fewer resources are available in the budget for expenditure on other priorities. Furthermore, real interest rates on longer-duration government bonds have been rising steadily in recent years, suggesting that further upward pressure on debt-service costs could materialise as the stock of debt is refinanced (Figure 15).

Figure 15: Debt-service costs as a share of government revenue (left) and the real yield on South African government bonds 10 years and over (right)



The real yield is calculated as the observed yield minus the rate of headline inflation.

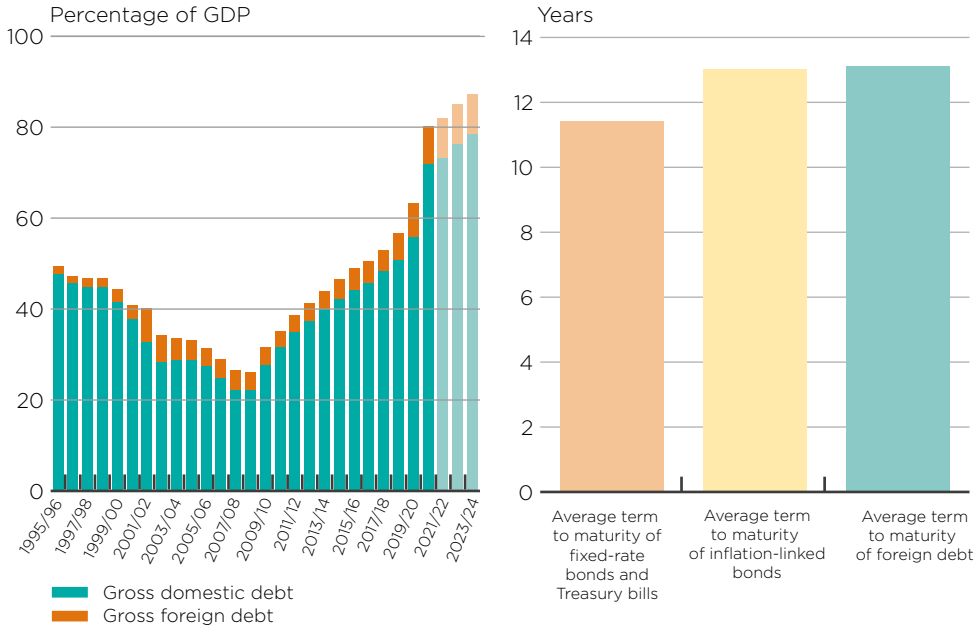
Sources: IMF and SARB

The composition of public debt has been important in mitigating the risk of a debt spiral. The average term to maturity of government's debt is long at almost 12 years, while nearly 89% of public debt is denominated in local currency (Figure 16). The long maturity profile of this debt works to contain the risk that debt-service costs will sharply increase, as much of the debt is issued at a fixed interest rate (which remains in place until maturity). The maturity profile has also provided government with the ability to increase its issuance of short-dated debt in 2020 to take advantage of low short-term interest rates. This strategy has resulted in the average nominal interest rate on government debt falling slightly. Despite the shift towards short-term debt in 2020, the average maturity profile remains long, which comes at a cost because of the historically large term premium (the higher compensation investors require to lend to government on a long-term basis).[27] Meanwhile, the preponderance of local currency debt does largely insulate the fiscus from exchange rate risk (the risk that exchange rate depreciations drive up the local currency value of the debt and the associated servicing costs). However, it does not on its own guarantee the sustainability of public debt. Indeed,

27 L Soobyah and D Steenkamp, 'Term premium and rate expectation estimates from the South African yield curve'. *South African Reserve Bank Working Paper Series WP/20/03*, June 2020.

recent research from the Bank of England and Bank of Canada highlights that local currency public debt defaults have been relatively common over the past 60 years, with at least 32 defaults having been recorded.[28] Box 3 discusses debt stabilisation in South Africa, which is something that will need to happen to ensure the sustainability of public finances.

Figure 16: The composition of public debt: foreign and local debt (left) and term to maturity (right)



The right-hand figure is based on data for the 2020/21 fiscal year.

Source: NT

28 D Beers, E Jones and J Walsh, 'Special topic: How frequently do sovereigns default on local currency debt?' Bank of England, June 2020. https://www.bankofcanada.ca/wp-content/uploads/2020/06/BoC-BoE-Sovereign-Default-Database-Local-Currency-Default-Frequency.pdf

Box 3: Public debt sustainability and stabilisation

Public debt sustainability requires that government can meet its current and future financial obligations without resorting to default or exceptional financial support from an institution such as the International Monetary Fund (IMF). An analysis of debt sustainability is complex as it requires knowledge of the long-term trajectory of various economic and fiscal indicators. As the future is uncertain, it is impossible to do this with precision. Given the various moving parts associated with a debt sustainability analysis, one relatively simple approach is to estimate the primary budget balance required to stabilise public debt (as a share of gross domestic product (GDP)) under different scenarios. This is a useful approach because debt sustainability requires, at a minimum, that public debt eventually stabilises. One can then assess the magnitude of the fiscal adjustment required to achieve a debt stabilisation under these scenarios.

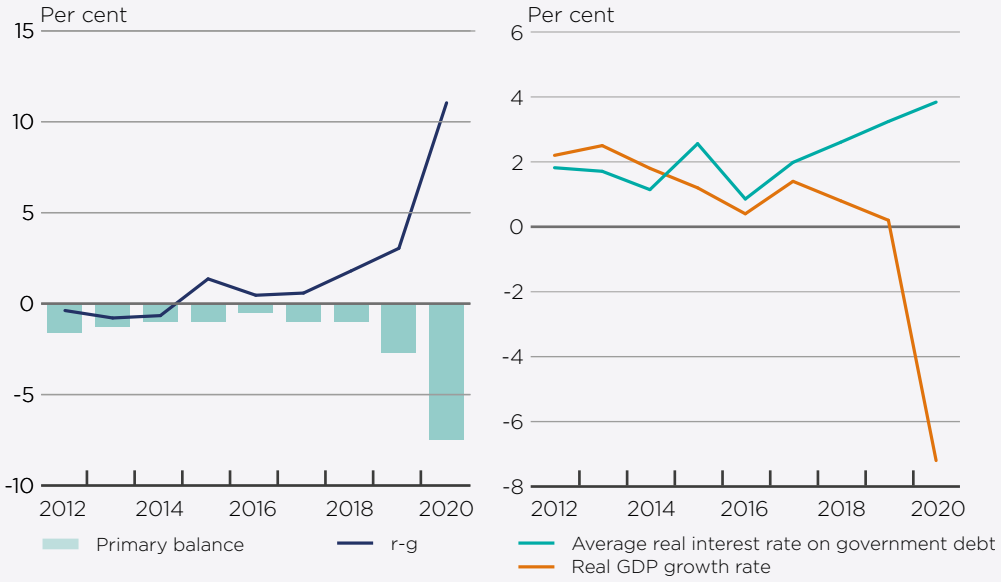
The evolution of the public debt-to-GDP ratio is determined by the primary balance, the interest rate that government pays on its debt and the GDP growth rate. The equation below can be used to calculate the primary balance required to stabilise the public debt-to-GDP ratio (with stabilisation denoted by a *). In the equation, 'r' refers to the average real interest rate on government debt and 'g' refers to the real GDP growth rate.[1]

1 O J Blanchard, J Felman and A Subramanian, 'Does the new fiscal consensus in advanced economies travel to emerging markets?', Peterson Institute for International Economics, *Policy Brief 21-7*, March 2021.

$$\text{primary balance}_t = \left(\frac{r-g}{1+g}\right).\ (\text{debt/GDP})^*$$

This equation indicates that the primary balance required to stabilise public debt becomes larger as the stock of debt increases. It also becomes larger as the difference between the 'r' and 'g' increases.

Figure B3.1: Historical outcomes for 'r' and 'g'



'r' is calculated as total debt-service costs in time t, divided by the stock of debt in t-1

Sources: NT and SARB

Government has recorded a consistent primary deficit in recent years. Meanwhile, the real interest rate–GDP growth differential has increased over time. This divergence grew considerably in 2020 when the COVID-19 shock adversely affected government revenues and economic growth.

Table B3.1 shows that a perpetual primary budget surplus is required to stabilise public debt under reasonable assumptions. In 2019, prior to the COVID-19 shock that caused substantial volatility in economic data, the potential growth rate of the economy averaged only 0.3% (based on SARB estimates) and the real interest rate on public debt averaged 3.2%.[2] If one were to extrapolate that forward, a primary surplus in the order of 2.6% of GDP would be required to stabilise debt at 89% of GDP (as targeted by National Treasury (NT) in the latest Budget). NT projects that real interest rates will moderate and GDP growth will improve so that a primary balance between 1.6% and 1.8% of GDP will be sufficient to stabilise debt. If economic growth accelerates, the task of stabilising debt will be made much easier, but if debt-service costs rise, it would be more challenging.

Table B3.1: The primary balance required to stabilise the government debt-to-GDP ratio under various scenarios

Real GDP growth	Real debt-service costs							
	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%
0.0%	1.3	1.8	2.2	2.7	3.1	3.6	4.0	4.5
0.5%	0.9	1.3	1.8	2.2	2.7	3.1	3.5	4.0
1.0%	0.4	0.9	1.3	1.8	2.2	2.6	3.1	3.5
1.5%	0.0	0.4	0.9	1.3	1.8	2.2	2.6	3.1
2.0%	-0.4	0.0	0.4	0.9	1.3	1.7	2.2	2.6
2.5%	-0.9	-0.4	0.0	0.4	0.9	1.3	1.7	2.2
3.0%	-1.3	-0.9	-0.4	0.0	0.4	0.9	1.3	1.7

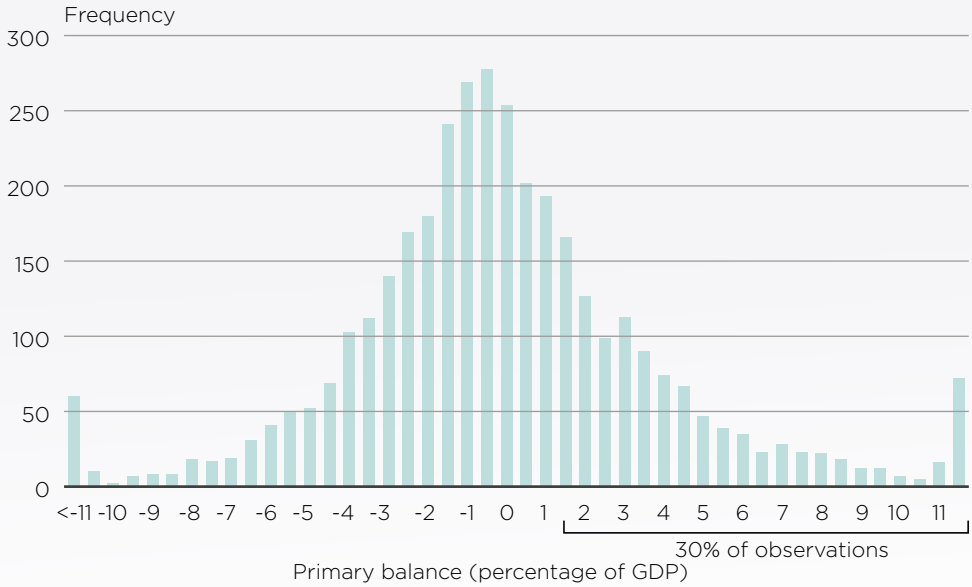
The table assumes that debt is stabilised at 89% of GDP as per NT's announced target.

Source: SARB

2 This is calculated as the total debt-service costs in period t divided by the total government debt in period t-1, and then adjusted for headline inflation in period t.

What can history tell us about the plausibility of attaining a primary surplus of more than 1.5% of GDP? In South Africa, a primary surplus exceeding 1.5% of GDP was achieved for 11 consecutive years between 1998 and 2008. This resulted in a considerable reduction in public debt. Another way to answer this question is to look at cross-country historical data. Figure B3.2 displays the observed primary balance for a group of 136 emerging market and developing economies over the period 1980–2019. In approximately 30% of observed outcomes across this sample, primary budget surpluses exceeded 1.5% of GDP. Hence, the primary surplus required to stabilise public debt (as estimated by NT) is clearly achievable, which implies that public debt is currently sustainable. However, it will require a sizable fiscal adjustment from the primary balance of -4.1% of GDP projected by NT for the 2021/22 fiscal year. Furthermore, it would be even better for macroeconomic resilience if the stock of debt were reduced rather than simply stabilised, which would call for larger primary surpluses (or more favourable 'r-g' dynamics).

Figure B3.2: Historical primary balances of selected emerging market and developing economies, 1980–2019



The figure reflects an unbalanced panel of 136 emerging market and developing economies for which there are data.

Source: IMF

Channels of risk transmission

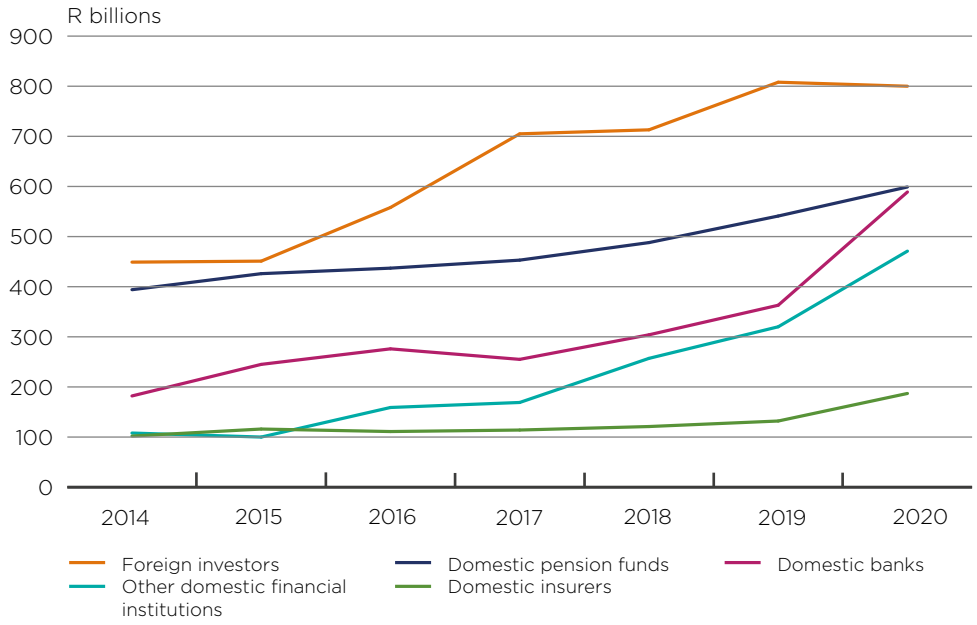
In this section, three key channels of systemic risk transmission between the financial sector and the sovereign are discussed. These are the direct exposure channel, the safety net channel and the macroeconomic channel. While each is discussed independently, it is important to bear in mind that these channels are interrelated and that there are significant spillovers among them.

Exposures

This is the primary channel of systemic risk transmission and refers to the direct exposures that financial institutions have to the sovereign. It is perfectly normal for financial intermediaries to have exposure to their sovereign. However, the significant increase in the size of these exposures, recently coupled with government's increasingly precarious financial position, has raised a number of risks for the domestic financial sector. The increasing

exposure of both banks and other financial institutions to government bonds is depicted in Figure 17. As government bond yields are currently relatively high, these bonds are an attractive investment class which has contributed to increased holdings by financial institutions. Meanwhile, Figure 18 looks at the exposures of the banking sector to the broader public sector. It shows that, on average, approximately 17% of the banking sector's assets are composed of credit extended to the public sector. This ratio is significantly higher among the smaller banks.

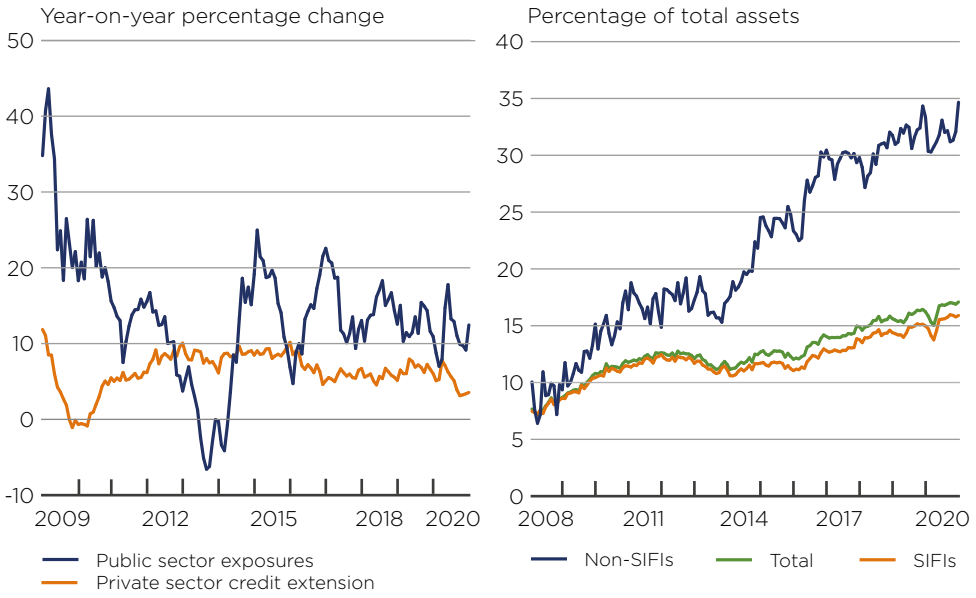
Figure 17: Holdings of government bonds by sector



The figure includes local currency fixed-rate and inflation-linked general government bonds. It does not include Treasury bills and foreign currency government debt, nor does it include loans to government or the debt of state-owned entities.

Source: NT

Figure 18: Domestic bank credit extended to the public sector (broadly defined): growth rate (left) and as a share of total bank assets (right)



In the figures, credit extended to the public sector includes holdings of government bonds and other listed debt such as Treasury bills as well as loans to general government, local government and state-owned enterprises.

Sources: PA and SARB

The most prominent risk associated with this channel is that institutions could face losses on their sovereign exposures. These losses could materialise in the event that the value of marketable government debt declines or, under an extreme scenario, if government is forced to restructure its debts. This will not only harm institutions directly through its effects on the value of their assets but can also reduce the value of sovereign collateral that institutions use when raising funding. This indirect effect can be material as many wholesale funding arrangements are based on collateralised lending. If the value of the collateral declines sharply, a borrower may be forced to post additional collateral or face a premature end to the funding arrangement. Such events can lead to a squeeze in wholesale credit markets (particularly for leveraged borrowers), which may have severe ramifications for the broader financial system.

Banks are in the business of lending funds with an uncertain prospect of repayment. This means that they take on credit risk (the risk of non- or incomplete repayment of the funds) as a normal part of their business. However, it is imperative that banks are appropriately capitalised to withstand any risk of non-repayment. A core part of the current financial regulatory architecture involves the setting of capital requirements for banks. These requirements are set as a proportion of RWA and are in place to absorb losses. Different asset types (e.g. home loans or vehicle finance) are assigned a risk weight commensurate with the risk of incurring a loss. Risk weights can either be assigned using a standardised approach (which most smaller banks follow) or they can be determined through the internal ratings-based (IRB) approach, which involves the use of internal bank models subject to the approval of the prudential supervisor (as most systemically important banks do). Table 1 displays the risk weights to be assigned to sovereign exposures under the standardised approach, based on guidelines issued by the Basel Committee

on Banking Supervision (BCBS). The guidelines suggest applying a risk weight of 100% on exposures to the South African sovereign, given its current credit rating (Figure 20 charts the changes in the sovereign credit rating.)

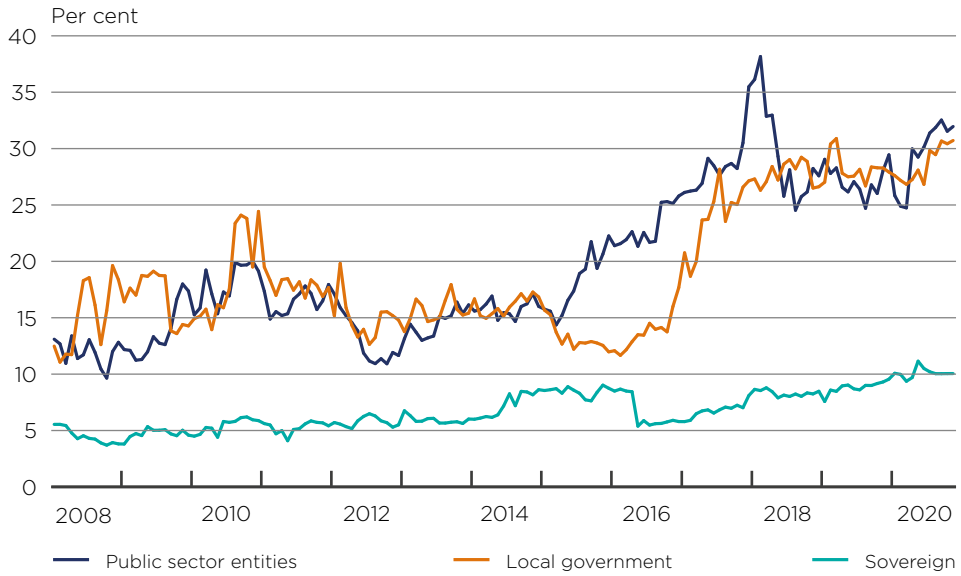
Table 1: BCBS standardised approach to risk weights for exposures to sovereign issuers based on credit rating

Credit assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk weight	0%	20%	50%	100%	150%	100%

Source: BCBS

However, sovereign exposures are exempt from many regulations pertaining to credit and concentration risk. The BCBS standards make provision for national discretion to apply a preferential risk weight for sovereign exposures denominated and funded in domestic currency. South Africa (along with all other member countries) has chosen to apply this exemption, meaning that under the standardised approach, a zero risk weight is applied to local currency sovereign exposures[29] (i.e. no capital is required to be held against these exposures). Banks following the IRB approach are applying positive risk weights to their sovereign exposures, indicating the presence of credit risk (Figure 19). However, these risk weights are well below the levels suggested in Table 1. Sovereign exposures are also not subject to concentration limits (banks can hold as much as they see fit), but are included as part of the leverage ratio.[30]

Figure 19: Average model-based risk weights associated with various types of public sector exposures



Risk weights are estimated by calculating the weighted average of IRB banks' risk-weighted exposures and expressing them as a share of the total exposures for each of the three categories.

Source: PA

29 This applies only to national government debt, not to exposures to state-owned enterprises.

30 The leverage ratio is a simple minimum regulatory requirement that measures the total value of a bank's capital relative to its assets. For further details on the leverage ratio, consult the first edition of the *FSR* of 2020.

The differentiated regulatory treatment of sovereign exposures is common globally, and with good reason. Government debt is generally the most liquid and safest financial asset in an economy. Consequently, various prudential regulations require banks to hold government debt instruments. For example, liquidity regulations designate government debt as a high-quality liquid asset that banks should hold to mitigate liquidity risk in the event of a funding squeeze. It is also the case that the SARB's lending to the banking sector through its main repo auction requires collateral in the form of government bonds. Also, some banks are primary dealers in the government bond market. They play a key role as buyers of government bonds in primary auctions and as market makers in the secondary government bond market. Thus, from a regulatory perspective, it has historically been pragmatic to treat sovereign exposures differently to those of the private sector. However, it is becoming apparent that regulatory exemptions with respect to sovereign exposures may also give rise to concentration risk and possibly insufficient holdings of bank capital against these exposures.

Safety net

This channel refers to the fact that government tends to provide a backstop to key financial intermediaries if they face financial distress. The failure of some financial institutions can be so damaging to the broader economy or to certain sectors thereof, that the government often takes it upon itself to provide explicit or implicit support to failing institutions and/or to their creditors. For example, when African Bank was placed under curatorship in 2014, NT issued a guarantee of R7 billion to facilitate the bank's restructuring.[31] This created a contingent liability for government. If a larger bank were to face financial distress, the implications for government's finances in aiming to address this could be much larger. As South Africa does not yet have a deposit insurance scheme in place, depositors are legally treated the same as other unsecured creditors in the event of a bank failure. Therefore, even retail depositors could experience losses if a bank fails. This could be regarded as suboptimal from a social or political perspective. As such, government generally steps in to at least ensure that vulnerable depositors are protected, even if the bank itself is allowed to fail.

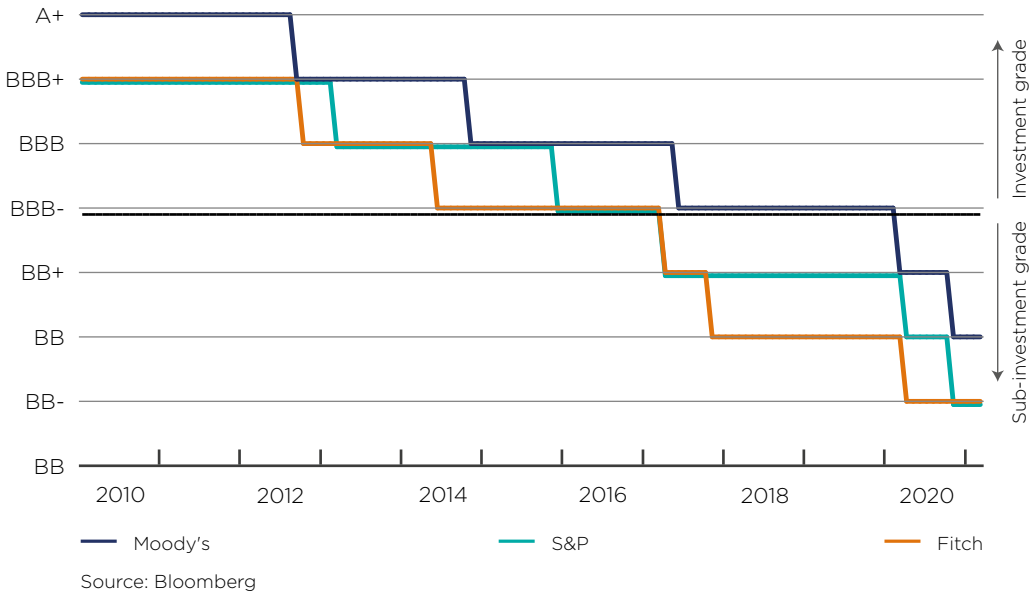
Limited fiscal space could call into question government's ability to provide a substantial backstop to the financial sector. The SARB assesses the financial sector to be stable at present. However, if any sizable financial institutions were to face the risk of insolvency, there is a growing chance that market participants could question the credibility of a government backstop, given its deteriorating fiscal position. If the market believes that a backstop will cause more risk than it alleviates (perhaps due to the adverse effects for the public sector balance sheet), this could give rise to greater contagion risk across the financial sector. For example, bank depositors may be more prone to bank runs and other forms of risk-averse behaviour. This type of behaviour was seen among wholesale depositors during the eurozone sovereign debt crisis.[32]

31 See the 2014 *Medium Term Budget Policy Statement*. http://www.treasury.gov.za/documents/mtbps/2014/mtbps/MTBPS%202014%20Full%20Document.pdf

32 A Mody and D Sandri, 'The eurozone crisis: how banks and sovereigns came to be joined at the hip', *Economic Policy* 27 (70), 2012, pp 199–230.

The importance of the public sector backstop creates a link between the credit ratings of banks and the sovereign. South African bank credit ratings are capped at the same level as that of the sovereign. Rating agencies have indicated that this link exists, in part, because bank creditworthiness relies on the capacity of the sovereign to support the banking sector in the event of an adverse shock. Since 2010, South Africa's foreign currency sovereign credit rating has been downgraded six times by each of the three large rating agencies, bringing it to sub-investment grade status (Figure 20). These credit rating downgrades have been passed on to the large banks, with implications for the cost of funding faced by these institutions.

Figure 20: South Africa's foreign currency sovereign credit rating



Source: Bloomberg

The FSLAB seeks to reduce costs to the fiscus in the event of a bank failure. The FSLAB contains two components: (i) strengthening the resolution framework for financial institutions; and (ii) introducing a deposit insurance scheme for South Africa. A key aim of these reforms is that public funds should no longer be the default source of funding used to bail out failing financial institutions or compensate retail depositors in these institutions. This will be achieved, in part, by ensuring that losses incurred due to the failure of a financial institution are first borne by shareholders and creditors, in accordance with the creditor hierarchy. Encouragingly, credit rating agencies have also indicated that if the mooted reforms to the bank resolution framework are convincingly implemented, it could be possible for banks to have credit ratings above that of the sovereign. The FSLAB is currently before Parliament, but even if it is promulgated in its current form, it could take a number of years to be fully implemented and before the orderly failure of large financial institutions could be achieved without government support. Therefore, while current developments aim to contain the risks associated with the safety net channel, it is likely to remain part of the financial sector-sovereign nexus threat over a medium-term horizon.

Macroeconomic links

Both government and the financial sector materially affect, and are affected by, macroeconomic developments. Government is affected by the economy primarily through its impact on tax revenues, which in turn influence the size of the budget deficit (and over time determine the level of spending that government can undertake). Fiscal policy decisions also affect the trajectory of the economy. From the perspective of the banking sector, adverse growth outcomes, such as that of 2020, can result in higher credit losses and increased funding spreads.[33] Similarly, asset allocation decisions by financial intermediaries can have large macroeconomic effects. One clear example is when financial firms take on excessive risk, which can crystalise in the form of a financial crisis.

A key macroeconomic linkage between the public and financial sectors is through domestic interest rates. Higher public debt levels have lifted government bond yields (all other things remaining equal), with spillovers onto the borrowing costs of the private sector. This can most clearly be illustrated in two ways. First, the issuance of bonds by private firms often takes place at a yield which references a similar-duration government bond. Second, the country risk premium[34] is directly incorporated into the neutral interest rate[35], which is considered by the SARB Monetary Policy Committee when setting the repo rate. As a consequence of South Africa's rising risk premium (which is driven largely by growing fiscal risk), the domestic neutral real interest rate has been increasing steadily since 2015. Consequently, South Africa faces a higher equilibrium repo rate than would otherwise be the case if fiscal risks were lower. Higher interest rates are associated with lower private investment. Weak GDP growth, alongside relatively high real debt-service costs, also implies a larger primary budget surplus requirement in order to stabilise public debt (as discussed in Box 2).

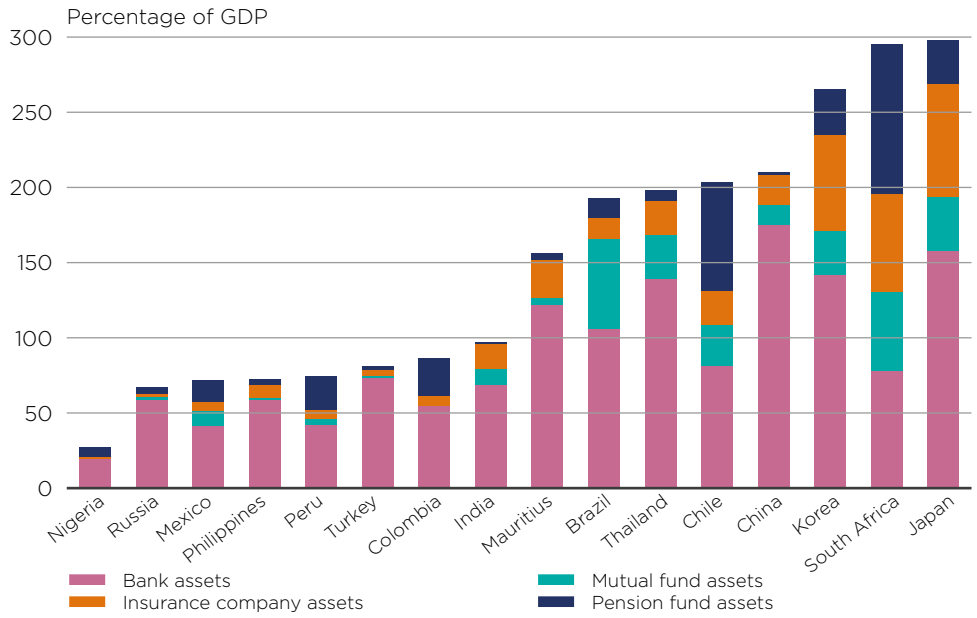
An important factor that has contained the effects of higher government debt on borrowing costs in South Africa is the size of the domestic financial sector. The combined assets of pension funds, insurance companies, banks and mutual funds is approximately 300% of GDP. This is much larger than most other emerging market economies (Figure 21). Consequently, there is more capacity among domestic financial intermediaries to absorb government debt issuance. This is likely to have contained the upward pressure on government borrowing costs as its issuance of debt has increased. Nevertheless, there are limits on the extent to which domestic financial intermediaries can absorb government debt while maintaining a balanced and diversified portfolio of assets. Furthermore, there is a risk that increased holdings of public debt by the financial sector may crowd out private borrowing.

33 See Box 1 for more information on bank funding costs during COVID-19.

34 This risk premium is derived from the JPMorgan Emerging Markets Bond Index Plus (EMBI+) spread and is incorporated into the neutral rate as a filtered equilibrium estimate of country risk.

35 The neutral real interest rate is the interest rate that would prevail if the economy was operating at full capacity and if inflation was expected to remain at the target level.

Figure 21: Financial sector assets by country



Based on the latest available data (varying from 2014 to 2017)

Sources: World Bank, IIF and SARB

Conclusion

The government's rising debt burden has created the need for a fiscal adjustment to ensure that the debt remains sustainable. The longer it takes to effect this adjustment, the larger the adjustment will need to be, and the more challenging it will be to achieve. South Africa's deteriorating sovereign credit ratings indicate that the risk of debt-service challenges is increasing. Debt sustainability relies on the confidence of investors. If investors become concerned that government lacks the will or ability to maintain a manageable stock of debt, they may opt to reduce their bond holdings, which can lead to a rapid rise in debt-service costs. Should the country reach a point at which a public debt restructuring is required, the financial sector would incur large losses as a result of its significant exposure to government debt. These losses, under plausible assumptions, could lead to a financial crisis. The optimal solution to this challenge is a growth-friendly fiscal consolidation which stabilises and then reduces the stock of debt as a share of GDP.

Elevated public debt appears to be weighing on economic activity and is lifting domestic interest rates. This trend is creating a variety of challenges for the financial sector, which are contributing to higher funding costs and weaker new business growth. Thus, even if one rules out the risk of a public debt default, the current fiscal position is still a concern for financial stability.

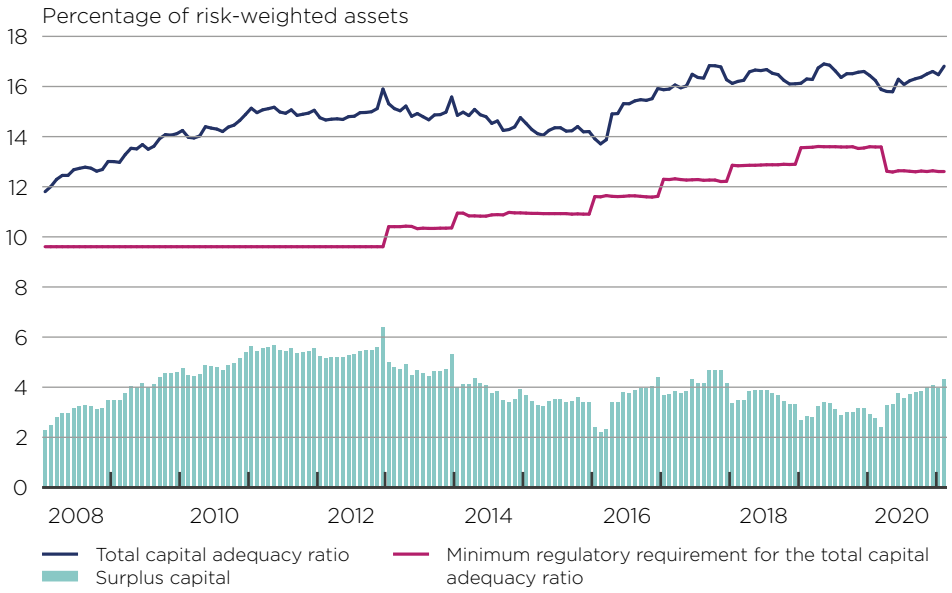
The SARB is currently investigating policy options to address the financial sector-sovereign nexus. As discussed earlier in this chapter, the passing of the FSLAB will be a key intervention to protect both the banking sector and the government in the event of a bank failure. The SARB is also researching other potential policy interventions to address the financial stability risks associated with this nexus.

Chapter 3: Sectoral overview

Banking sector

The banking sector has been resilient over the past year, strengthened by sizable capital and liquidity buffers. Despite the adverse economic conditions, the banking sector's average CAR was at an identical level at the end of 2020 (16.6% of RWA) to its end-2019 level (Figure 22). The sector's aggregate CAR remains approximately 4 percentage points above its current minimum regulatory requirement, a surplus that is relatively high by recent historical standards. The sector's LCR is also well above the minimum requirement (which is currently 80%) as it averaged 142% in 2020.[36]

Figure 22: The banking sector's capital adequacy ratio

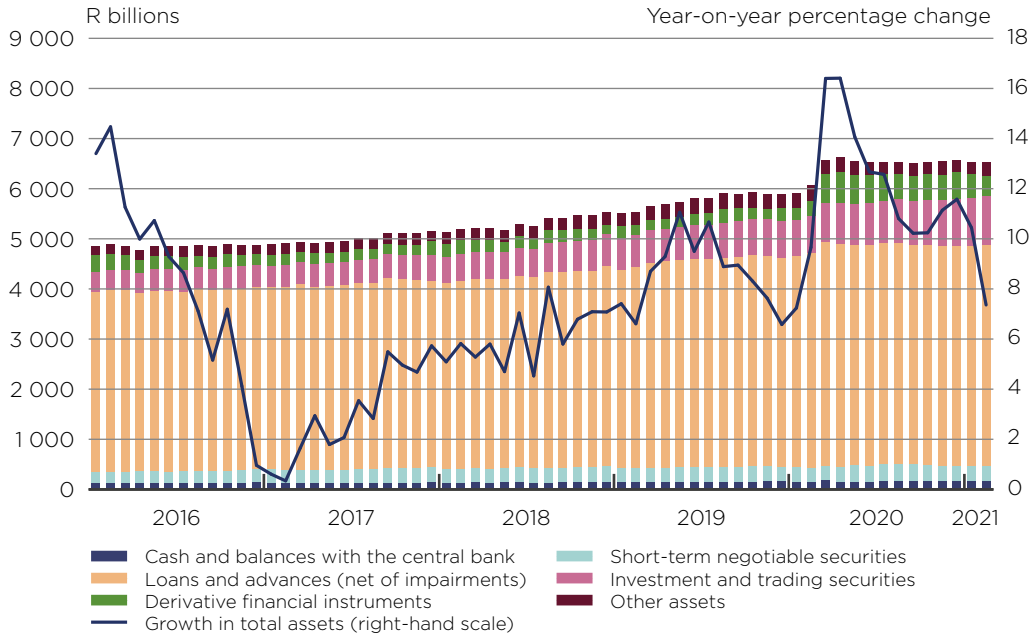


Source: PA

The sector achieved relatively strong asset growth in 2020. Assets grew by 11.6% in 2020, which is an increase on the 6.6% growth rate recorded in 2019 (Figure 23). This was driven by strong increases in the derivative financial instruments (110%) and investments and trading securities (27%) categories. The former category typically increases during times of market volatility as banks hedge and trade more actively, while the latter category is largely made up of holdings of government securities and has grown faster than total sector assets for each of the past five years. The sector's largest asset – loans to customers – increased by 5.6% in 2020 (after adjusting for impairments), suggesting that lending continued at a cautious pace during the year.

36 The sector's capital and liquidity ratios were subject to regulatory relief measures, as directed by the Prudential Authority.

Figure 23: Asset growth in the banking sector



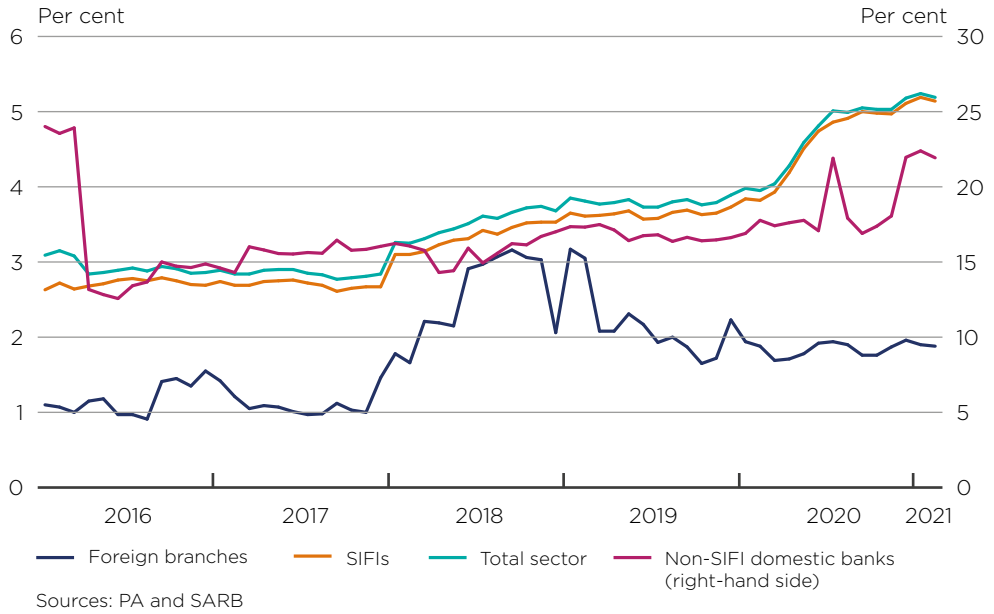
Source: PA

Credit risk appears to be stabilising at elevated levels. The ratio of impaired advances to gross loans and advances – a key indicator of credit risk – increased sharply following the COVID-19-induced restrictions in March 2020, but subsequently flattened from September 2020 to December 2020 (Figure 24). The indicator edged up slightly in January 2021, reaching 5.2%, which is the highest level since September 2011.[37] Branches of foreign banks have shown less stress than domestically domiciled banks since the start of COVID-19, while smaller (non-SIFI[38]) domestic banks are facing much higher levels of impaired advances (reaching a peak of 22.4% of total advances in January 2021) than the rest of the sector.

37 Over the past 12 years, the highest reported level for total sector impaired advances to gross loans and advances was 6% in November 2009 amid the global financial crisis.

38 Smaller banks are defined as banks, other than the six that were designated as systemically important financial institutions, or SIFIs. Refer to the second edition of the *FSR* of 2019 for systemically important bank designations.

Figure 24: Impaired advances as a share of gross loans and advances

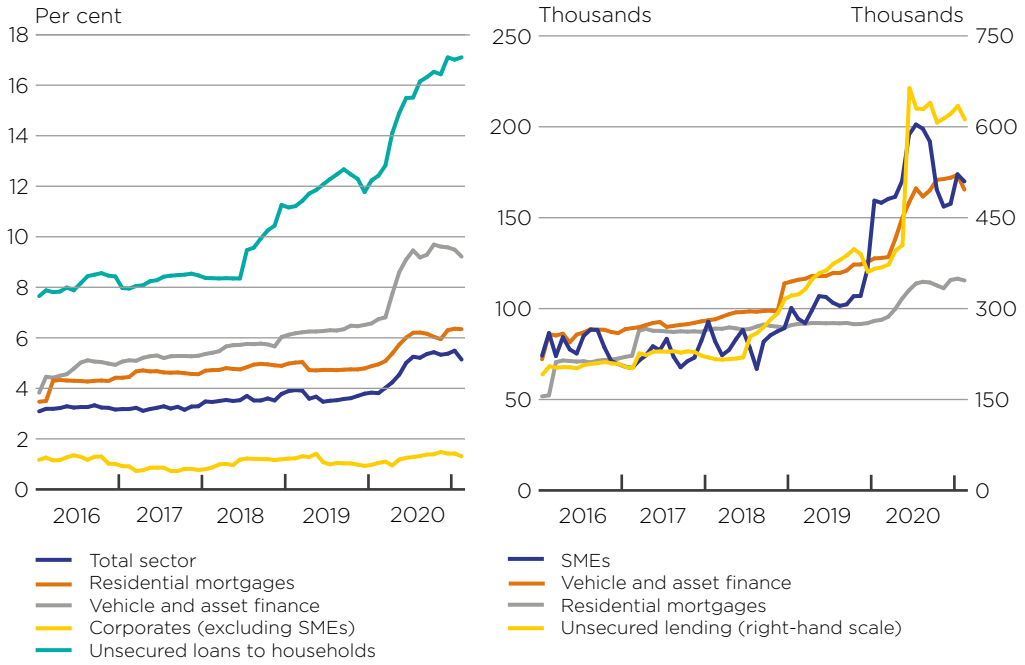


Sources: PA and SARB

Most of the sector's credit portfolios have shown higher stress since early 2020. With the increased number of retrenchments and furloughs since March 2020, there has been a significant rise in the number of counterparties defaulting on residential mortgage, vehicle and asset finance (VAF) as well as unsecured household loans (Figure 25). Compared with five years ago, the number of customers in default has more than doubled for each of these categories (with the latter category having more than tripled). While the residential mortgage default ratio[39] in February 2021 (at 6.3%) was well below the peak it reached in 2010 (9%), the VAF default ratio exceeded its global financial crisis high in the final quarter of 2020 (reaching 9.7%). The default ratio in the corporate portfolios has been lower than that of retail portfolios, suggesting greater resilience among firms than households to the current downturn. A corporate portfolio that is showing significant stress is small- and medium-sized enterprises (SMEs), where defaulted exposures increased by more than 50% year on year in January 2021. However, this category accounts for only 14% of total corporate lending.

39 A default ratio is an indicator of credit risk. Banks report defaulted exposures for certain loan portfolios that have been approved to use the internal ratings-based approach for measuring and reporting credit risk. A default ratio is calculated as defaulted exposures as a percentage of the exposures at default, with a higher ratio indicative of increased defaulted exposures in the loan portfolio.

Figure 25: Default ratios (left) and number of counterparties in default (right) for selected banking sector portfolios*



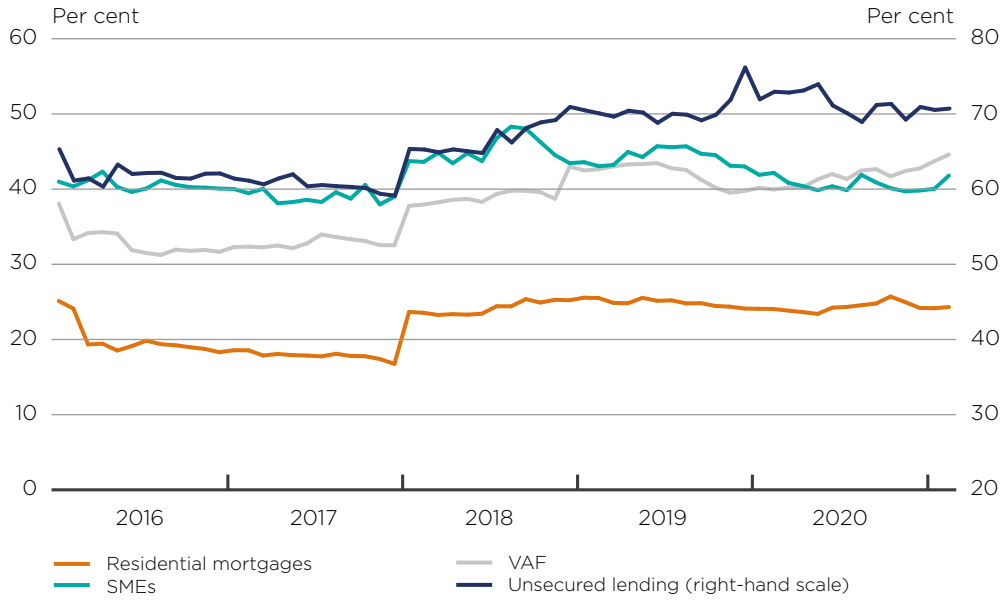
* The data in the figure are for IRB banks only.

Source: PA

The increase in the sector's loan provisions has broadly matched the rise in defaulted exposures. An important measure banks can take to mitigate against the risk of deteriorating asset quality is to ensure that loan provisions increase commensurately. The increasing riskiness of the SME, residential mortgages, VAF and unsecured lending portfolios has largely been matched by an increase in provisions for these portfolios (Figure 26). There has been a slight deterioration in the SME and unsecured term lending coverage ratios[40] over the past two years, but each one remains in line with its long-term average of 40% and 71% respectively. In addition to specific loan provisions, the sector holds general provisions and regulatory capital buffers.

40 Coverage ratios indicate the level of provisions held as a share of defaulted exposures in a loan portfolio. Secured lending portfolios usually have lower provisions because collateral is held should the loan default.

Figure 26: Coverage ratios for SMEs, residential mortgages, VAF and unsecured lending portfolios



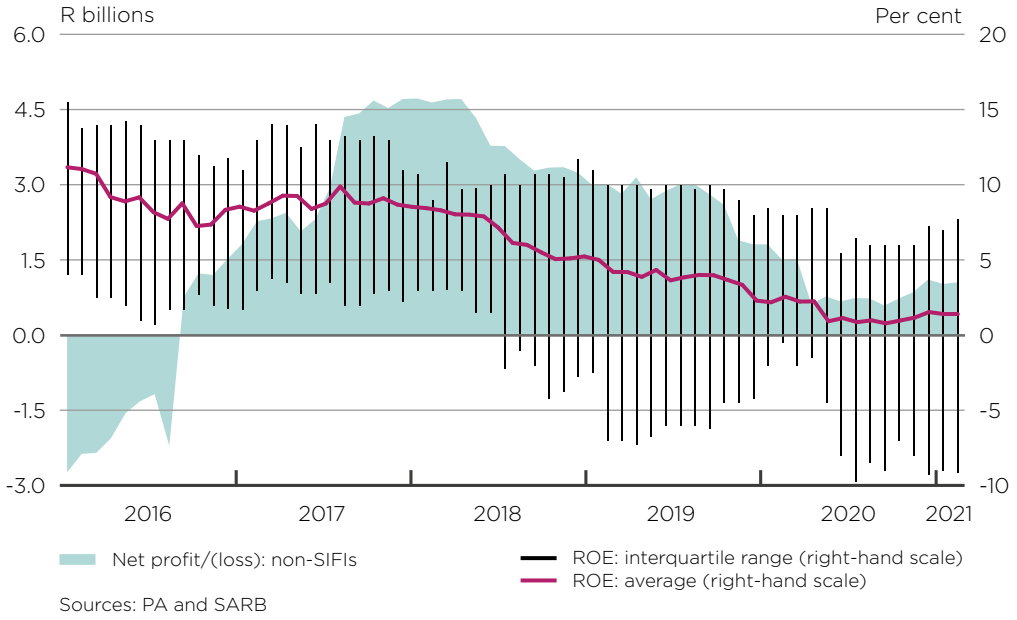
Sources: PA and SARB

Prior to COVID-19, smaller banks faced challenges with declining profitability. After dropping in the first half of 2020, smaller banks' return on equity (ROE)[41] flattened and increased only slightly in late 2020 (Figure 27). Despite this marginal improvement, these banks' ROE has averaged just 1.3% since March 2020. The distribution of smaller banks' ROEs has also widened as more than a quarter of these banks have fallen into loss-making territory. Smaller banks tend to be more vulnerable to large-scale shocks as a result of business models that are less diversified in terms of geography, sector focus and product mix.[42] While the broader banking sector is expected to remain adequately capitalised, sustained low economic growth could pose material risks to the solvency of smaller banks.

41 The ROE ratio is a key indicator of a bank's profitability. It is calculated as 12-month net profit (loss) adjusted for non-trading and capital items as a percentage of 12-month average equity.

42 Foreign branches, which form part of smaller banks, are generally more resilient, in part due to them forming part of larger, foreign banking groups.

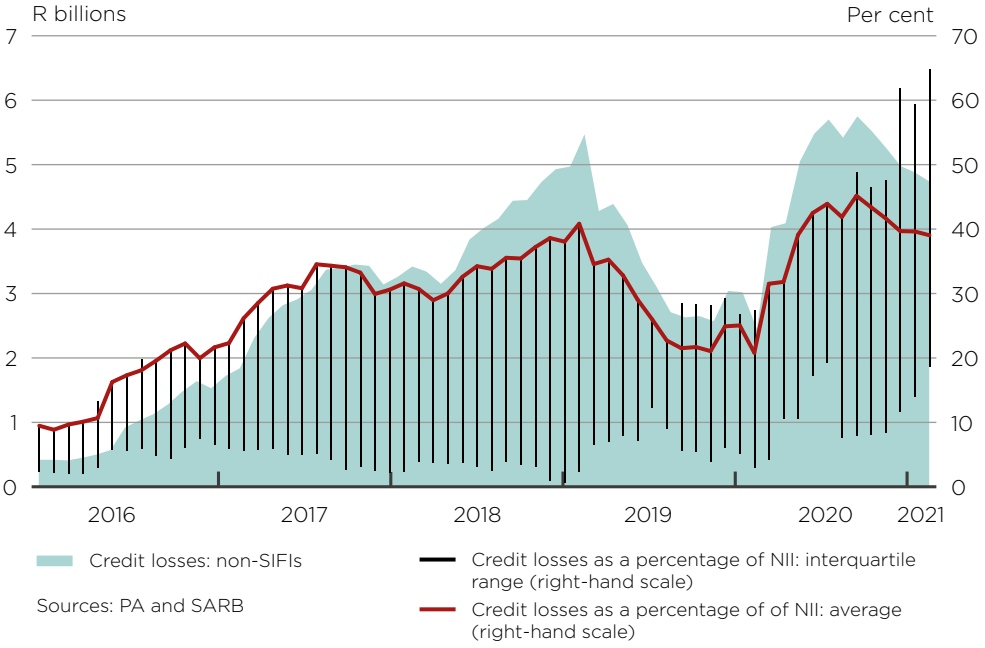
Figure 27: Smaller banks' profitability



Sources: PA and SARB

The main reason for the deterioration in smaller banks' profitability has been a significant increase in credit losses. The ratio of smaller banks' credit losses to net interest income[43] (NII) peaked at 45% in September 2020, before moderating to 39% in February 2021 (Figure 28). This was a significant acceleration compared to the average of 29% for the ratio recorded in 2019. The distribution of credit losses among banks has also widened, suggesting a more varied default experience across the sector recently.

Figure 28: Credit losses as a percentage of net interest income for smaller banks

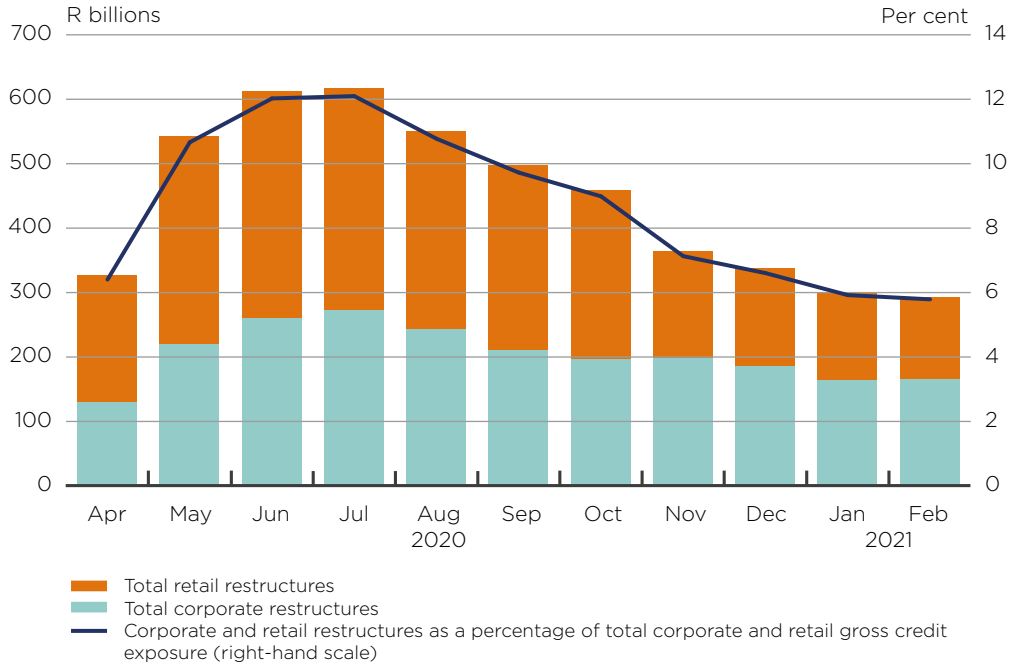


Sources: PA and SARB

43 Credit losses as a percentage of net interest income gives a broad indication of the profitability and quality of a bank's interest-bearing assets (i.e. loans and investments). An increase in the indicator could be as a result of higher credit losses on loans, lower interest income from loans and investments, or a combination of these factors.

The most widely used regulatory relief measure provided to the banking sector as a result of COVID-19 has been the adjusted treatment of restructured loans. This measure was intended to support the sector's efforts to provide payment holidays (or other forms of loan restructuring) to customers, previously in good standing, who had been affected by the pandemic. The measure allowed restructures to take place without the usual requirement of additional capital to be held against such restructures. Since peaking at just over R600 billion in July 2020, the value of COVID-19-related restructured loans had halved to R293 billion in February 2021 (or 5.8% of all corporate and retail credit exposures) (Figure 29). Approximately two thirds of the restructured loans that are still active relate to corporate loans, residential mortgages and VAF. Most of the loan restructuring took place during the second quarter of 2020, with new restructures since December 2020 constituting, on average, less than 2% of total restructures.

Figure 29: Active COVID-19 restructured loans



Sources: PA and SARB

Non-bank financial institutions

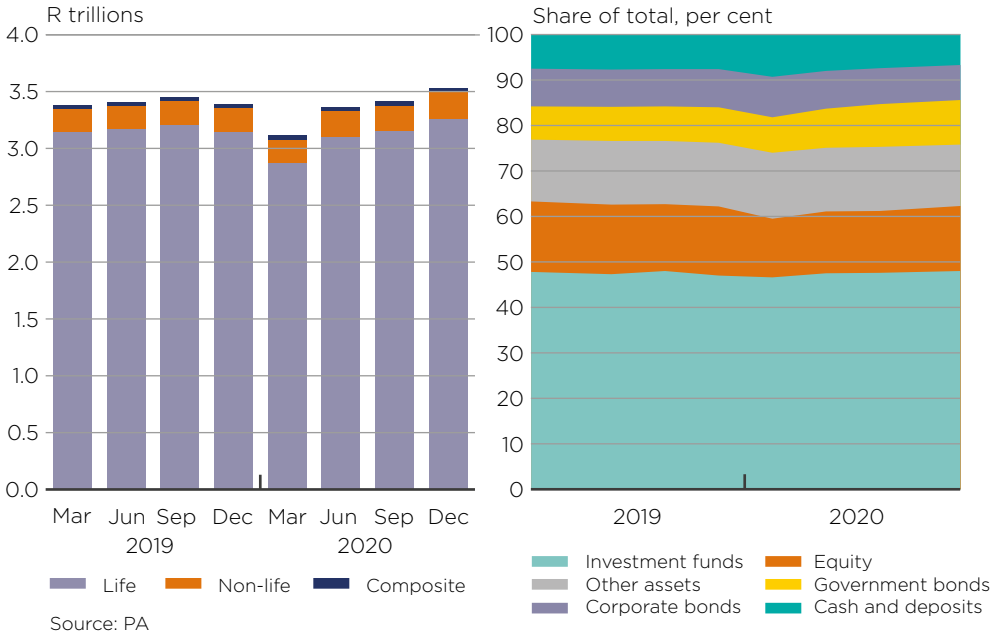
This edition of the *FSR* covers the following non-bank financial institution sectors: insurers, collective investment schemes and pension funds.

Insurance sector

Assets of insurance companies grew in the second half of 2020, boosted by a double-digit increase in non-life insurance assets. In 2020, the assets of insurance firms grew by 4.2% year on year to R3.5 trillion, supported by a 15.6% year-on-year increase in the assets of non-life insurers (which reached R239 billion in December 2020). Meanwhile, life insurers grew the asset base by 3.5% year on year to R3.3 trillion. Despite a strong increase in the assets of non-life insurers, life insurers continue to hold more than 90% of the sector's assets (Figure 30).

The insurance sector's investments are well diversified. Between 2019 and 2020, the sector's largest exposure – investment funds – increased slightly as a share of assets to 48% (Figure 30). Holdings of government bonds increased strongly over the same time frame from 7.8% to 9.8% of total sector assets. This may be attributed to the high yields available on government bonds. Meanwhile, holdings of cash, equities and corporate debt declined slightly as a share of assets.

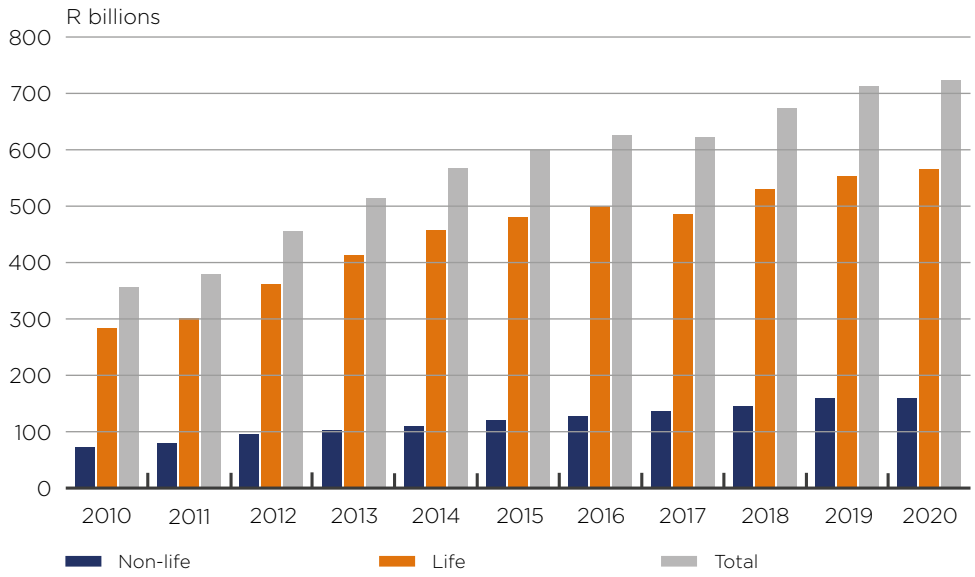
Figure 30: Insurance sector assets by entity type (left) and as a share of holdings (right)



Source: PA

The insurance sector's aggregate gross written premiums increased slightly in 2020, despite a challenging trading environment. Life insurance gross written premiums increased by 2%, while non-life premiums decreased by 0.6% in 2020. The decline in non-life premiums was mainly driven by lower income from guarantees as well as travel, motor and legal insurance.

Figure 31: Insurance sector: gross written premiums

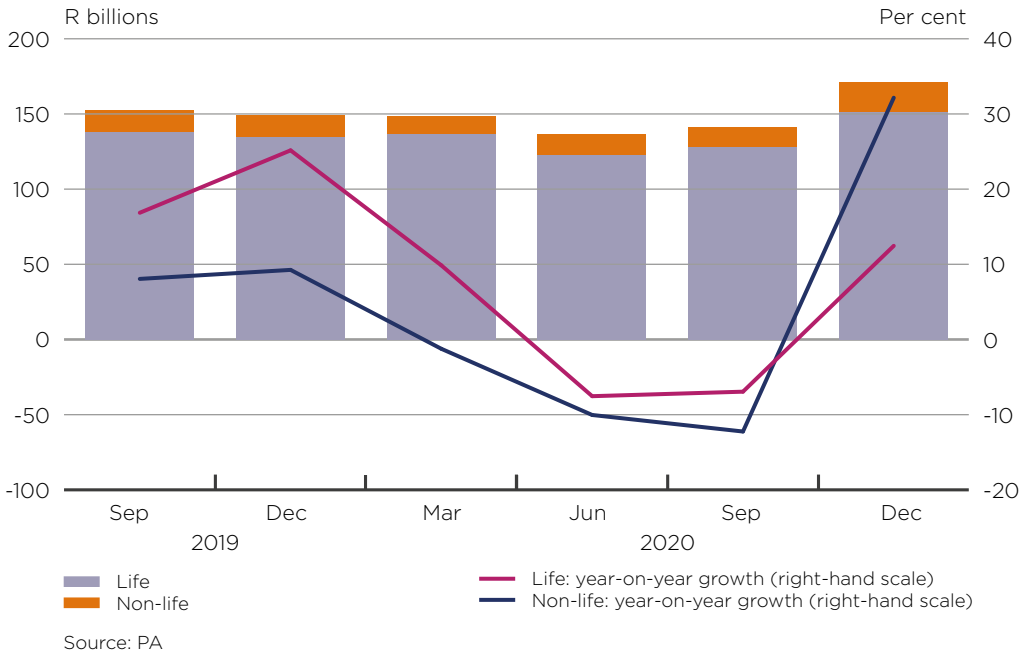


Source: PA

Insurance claims increased for both life and non-life insurers during the second wave of COVID-19. Life insurance claims increased in the fourth quarter of 2020, amid rising COVID-19-related infections and deaths. Non-life insurance claims also grew in the fourth quarter of 2020, following three successive quarters of negative annual growth. The increase in this category was attributed to higher claims for property insurance (27%), liability insurance (68%), trade credit (57%) and consumer credit (57%). However, motor insurance claims, which account for the majority of non-life claims, saw a decrease over the period due to continued lockdown restrictions. The recent ruling on business interruption claims in favour of the insured implies that more claims in the non-life insurance space could be paid out over the coming months, which may impact profitability in this segment.[44]

44 After months of uncertainty between non-life insurers and the insured, it was ruled that the insured, if eligible, may claim against insurers for business interruption. Some insurers had argued that business interruptions were not as a result of COVID-19 but rather due to the national lockdown imposed by the government. In the Supreme Court of Appeal case on 17 December 2020 between Guardrisk and Café Chameleon, the court ruled in favour of Café Chameleon and ordered Guardrisk to pay claims and legal costs. This ruling set a precedent for non-life insurers.

Figure 32: Insurance sector: net claims paid

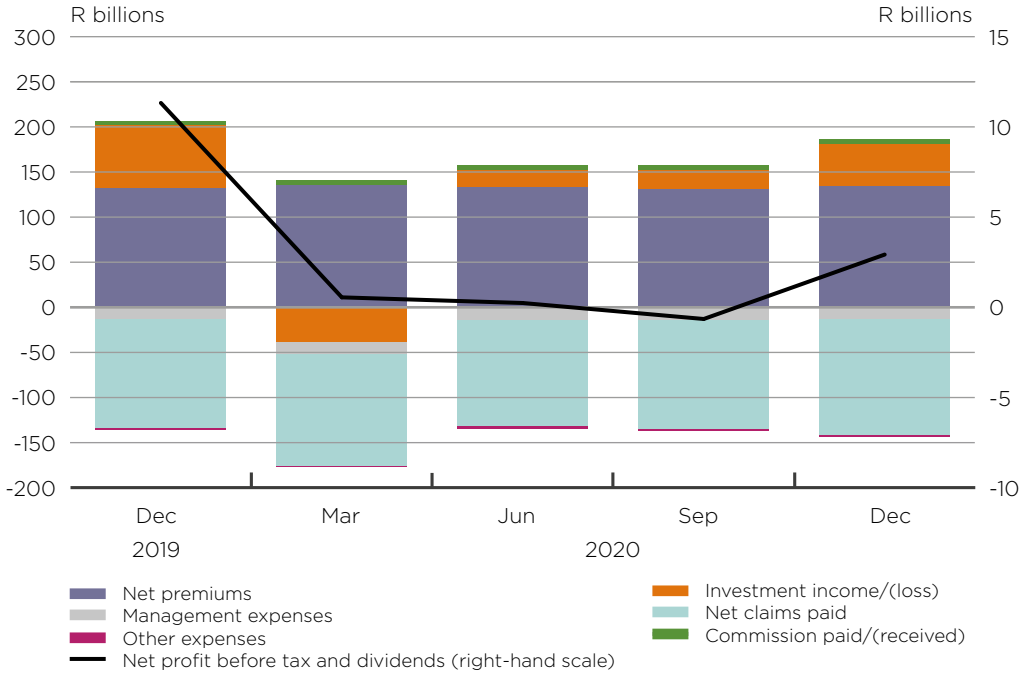


Source: PA

Despite rising claims, life insurers' profits have started to increase. Net profit before tax for life insurers[45] increased in the fourth quarter of 2020 to R2.9 billion, after a loss of over R600 million was recorded in the third quarter (Figure 33). The rebound in life insurance profits was driven largely by a sharp rise in investment income and a moderate increase in premiums earned. Investment income was boosted by improved stock market returns in the second half of 2020. However, the increasing trend on claims continues to pose risks to profitability in the near term, particularly if sustained (possibly due to a third wave of COVID-19 infections).

45 This is measured on a four-quarter moving-average basis.

Figure 33: Life insurance profits and selected drivers

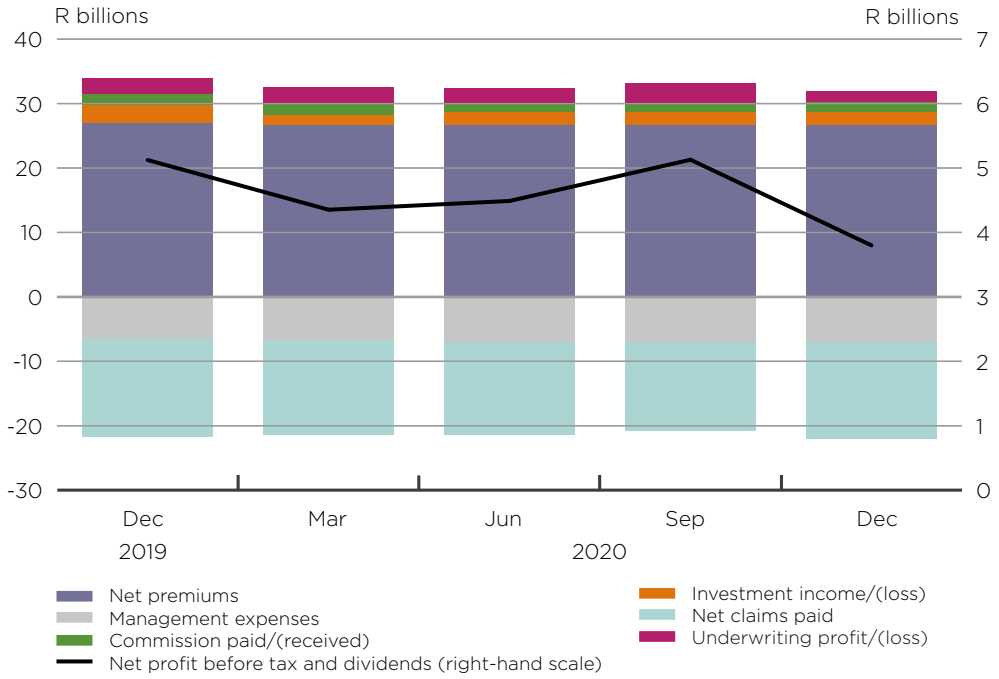


The data in this figure are recorded as a four-quarter moving average. Not all subcomponents of net profit are included in the figure, therefore the various subcomponents may not add up to the total net profit amount.

Source: PA

The profitability of non-life insurers moderated in the fourth quarter of 2020, but remained positive. This was mainly as a result of a substantial increase in claims paid, particularly for property insurance. A marginal drop in premiums earned (mostly due to a decline in motor insurance premiums) also contributed to the decline in profit. On a four-quarter moving-average basis, net profit before tax decreased to R3.8 billion in December 2020, from R5.1 billion in September 2020 (Figure 34).

Figure 34: Non-life insurance profits and selected drivers thereof



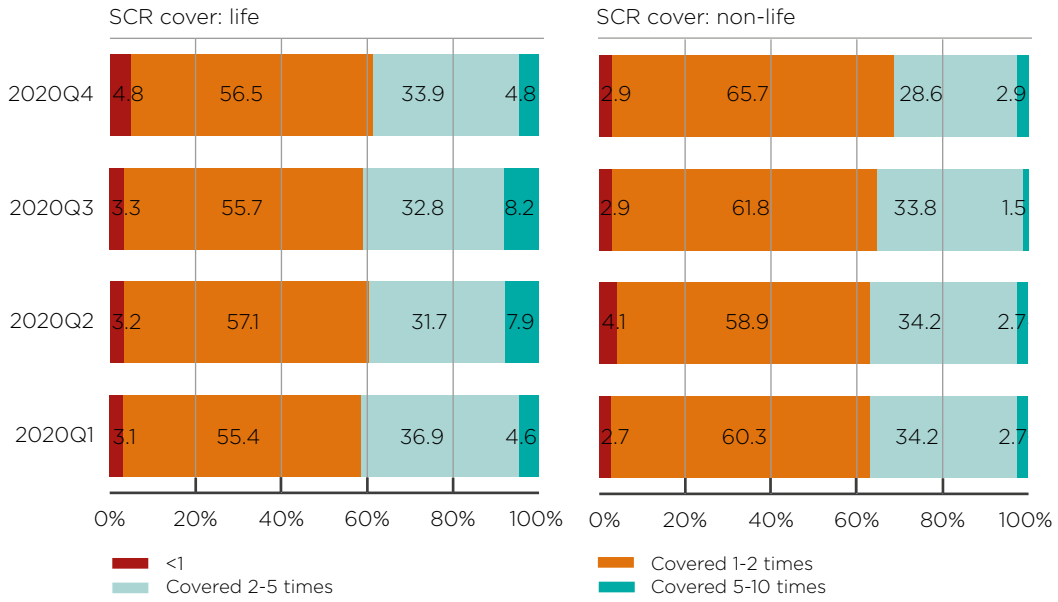
The data in this figure are recorded as a four-quarter moving average. Not all subcomponents of net profit are included in the figure, therefore the various subcomponents may not add up to the total net profit amount.

Source: PA

The insurance sector remains adequately capitalised. The solvency capital requirement (SCR) is the main regulatory requirement for insurers and reflects the amount of own funds that a company requires to survive a 1-in-200-year loss event. On a weighted-average basis, both the life and non-life insurance industries maintained average SCR coverage ratios well above the minimum requirement in 2020. A small number of insurers are currently operating below their minimum requirement which, given the large number of insurers in the sector,[46] is not unusual (Figure 35). While the share of undercapitalised firms in the life insurance space has increased relative to the first quarter of 2020 to 4.8% (at the end of 2020), the share of non-life insurers operating with an SCR below 1 at the end of 2020 was broadly similar to its level at the start of the year. The persistent threat of COVID-19 could still place additional downward pressure on profitability and solvency ratios in the sector. Consequently, the timing of the vaccine roll-out will be an important determinant of the sector's performance over the short to medium term.

46 There were 134 active life and non-life insurers in the fourth quarter of 2020.

Figure 35: The distribution of solvency capital ratios for insurance entities



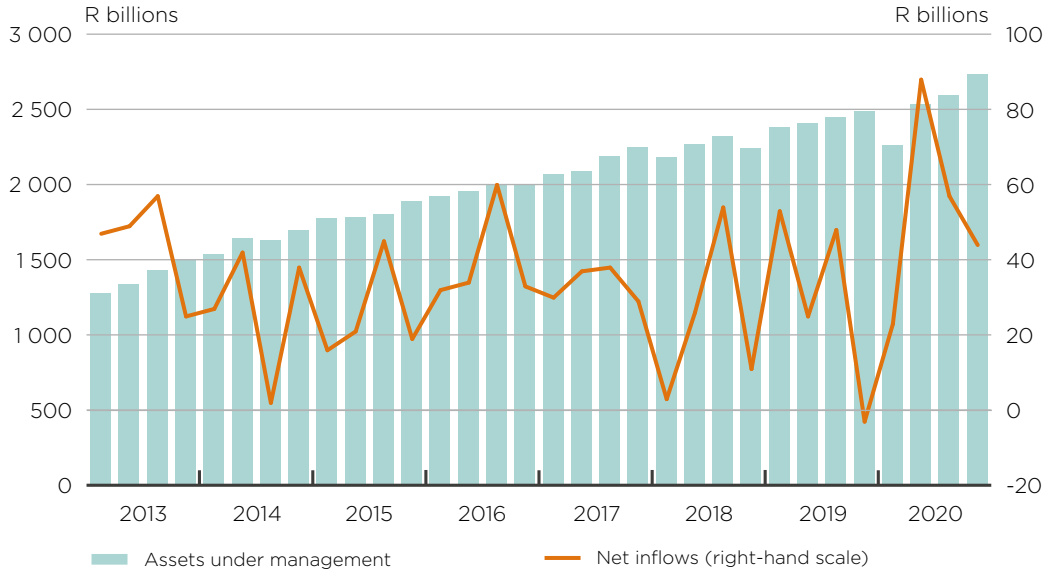
The data above are not weighted by insurer size. The weighted average SCRs of the sector are displayed in Figure 11.

Source: PA

Collective investment schemes and pension funds

Assets under management (AUM) of collective investment schemes (CIS) has more than doubled over the past eight years. This growth trend continued in 2020 with CISs recording their highest ever nominal net annual inflow (R213 billion), bringing the CIS AUM to R2.7 trillion by the end of the year. The sharp increase in investment into CISs took place despite higher market volatility and an uncertain trading environment. The second quarter alone marked the highest ever net quarterly inflow into CISs of R88 billion, followed by R57 billion and R44 billion in the third and fourth quarters respectively. This indicates significant confidence in CISs.

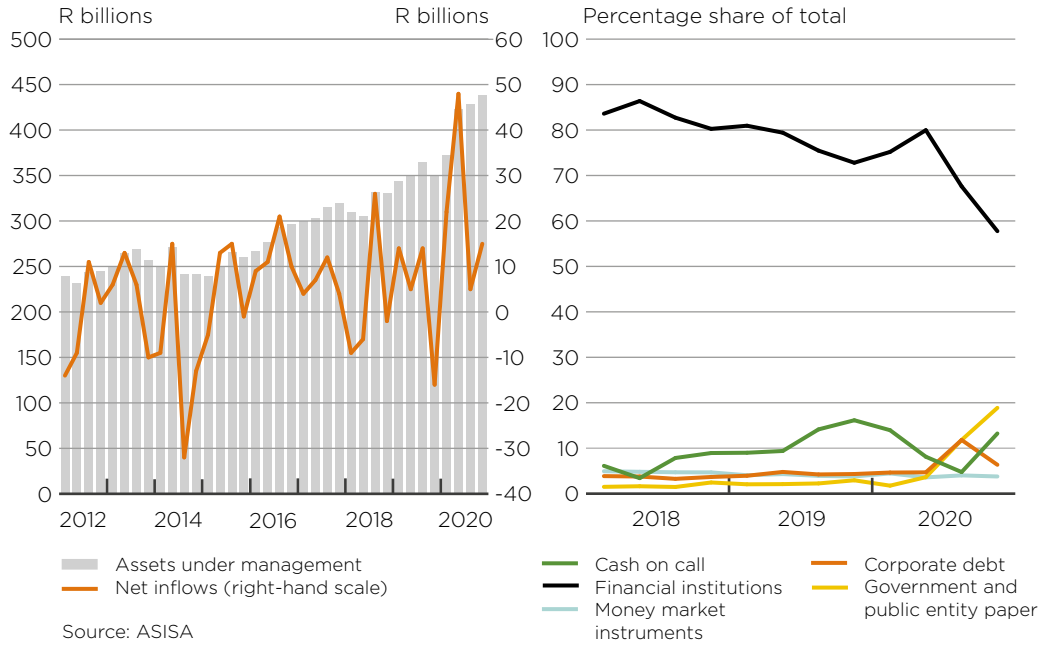
Figure 36: Assets under management and net flows into collective investment schemes



Source: ASISA

Money market funds (MMF) recorded significant inflows throughout 2020. MMFs remained the largest CIS fund type, generating a total of R90.2 billion worth of inflows during 2020. Following a significant jump in the AUM of MMFs between the first and second quarters of 2020, AUM continued to increase steadily throughout the remainder of 2020. Exposures to financial institutions decreased significantly as a share of MMF holdings during the second half of 2020. However, instruments issued by financial institutions remain the largest exposure of MMFs at over 50% of assets.

Figure 37: Assets under management and net flows into money market funds (left) and money market fund exposures (right)

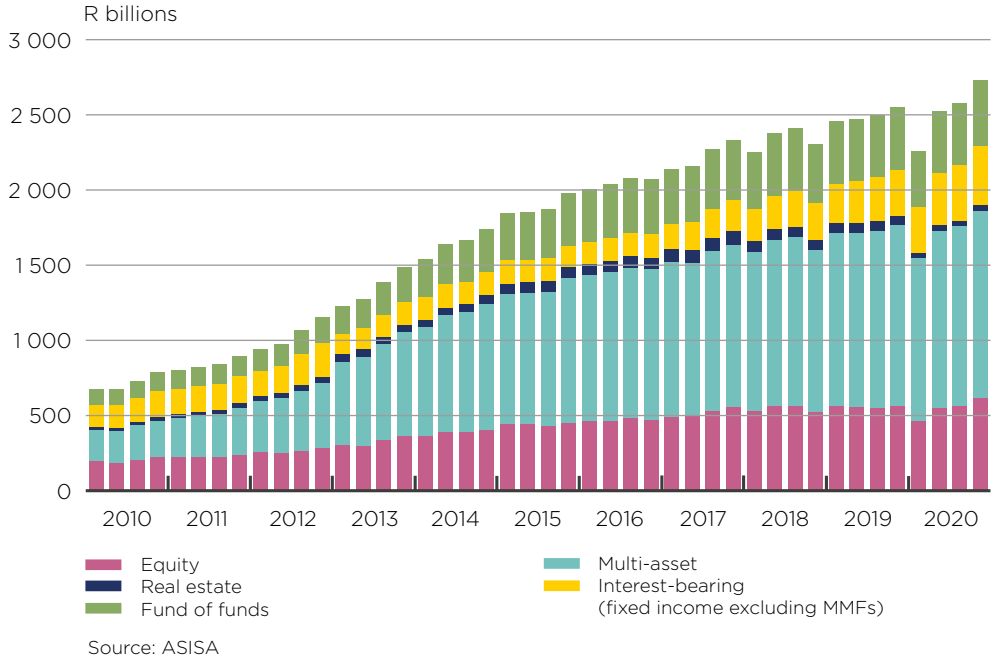


Source: ASISA

MMFs remain vulnerable to large and unexpected redemptions. MMFs typically perform liquidity transformation, meaning that they offer the option for investors to withdraw funds at short notice, but invest in some assets that are not highly liquid (i.e. not always easy to sell on demand without a sizable price penalty). This can pose risks to MMFs if investors seek to withdraw their funds rapidly. This occurred briefly during March 2020 as investors repositioned towards cash amid market turmoil, resulting in temporary redemptions out of MMFs. Some funds were forced to sell assets to accommodate the redemptions, which drove asset prices lower and caused a temporary squeeze on these funds. This was in line with the global experience during the initial COVID-19 shock.[47] Interventions by the SARB in the bond market and a recovery in global markets contributed towards a stabilisation in domestic market pricing, leading to increased confidence, which in turn limited the demand for redemptions. As a result, no MMFs were forced to halt or limit redemptions. Given that MMFs are important sources of short-term funding for banks and some corporations, risks to MMFs can rapidly spread across the economy.

Other investment funds' AUM increased steadily throughout the second half of 2020. The biggest increases in AUM in the second half of the year were recorded by equity funds and interest-bearing funds (excluding MMFs). Multi-asset funds make up the largest portion of other investment funds' exposures, followed by equity funds and fund of funds (Figure 38).

Figure 38: Other investment funds: assets under management

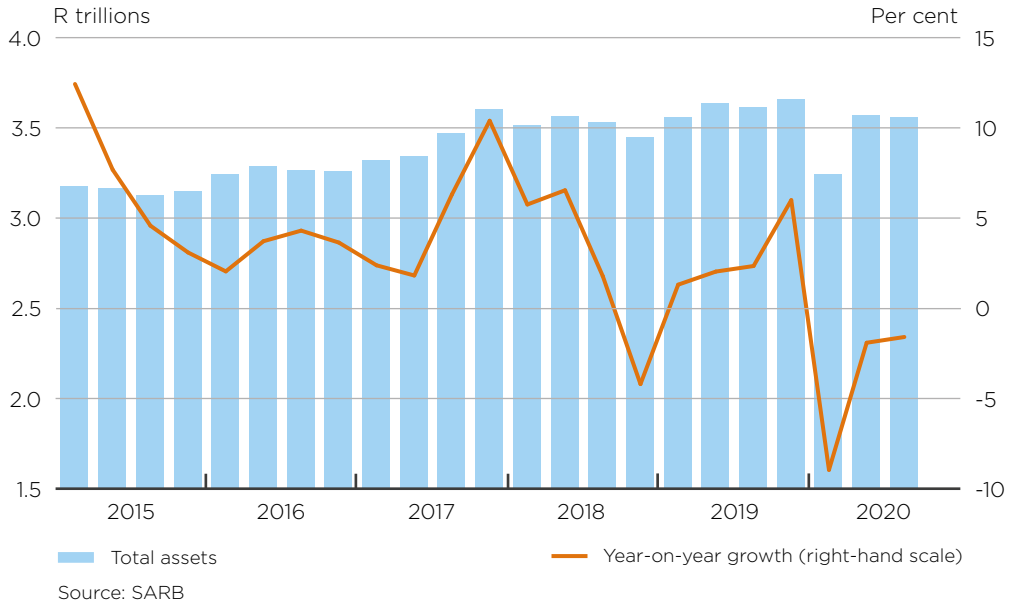


Source: ASISA

47 See the Financial Stability Boards' *Global Monitoring Report on Non-Bank Financial Intermediation 2020*. https://www.fsb.org/wp-content/uploads/P161220.pdf#page=70.

Pension fund assets declined in 2020 amid challenging economic and financial conditions. Pension fund assets decreased by 1.6% year on year to R3.6 trillion in the third quarter of 2020 (Figure 39). This was due to a decline in private self-administered pension fund assets,[48] which fell by 3.6% year on year. Official pension fund assets,[49] which account for more than half of total pension assets, remained unchanged in the third quarter (on a year-on-year basis).

Figure 39: Total pension fund assets



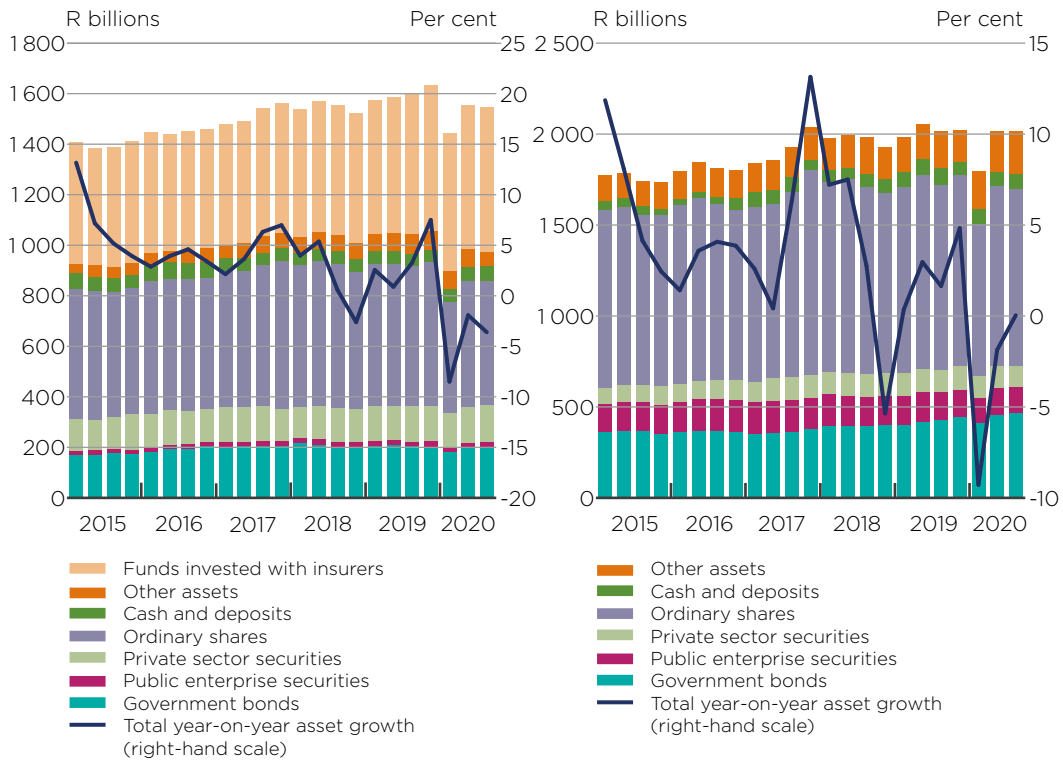
Source: SARB

The growth in government pension fund assets outstripped that of privately administered pension fund assets throughout 2020. Both private and government pension fund assets fell sharply in the first quarter of 2020 on the back of declining financial asset prices. However, there has been a slight divergence since then as government pension fund assets had almost returned to their end-2019 level by the third quarter of 2020, while privately administered pension fund assets remained 5.5% below their end-2019 level in the third quarter. Although differences in the composition of assets could have contributed to this divergence, it is likely that a large share of the decline in private pension fund assets was due to the significant loss of jobs in the private sector during 2020, as some of the newly unemployed accessed their pension savings to meet financial commitments. The reduced private sector workforce is also likely to have resulted in smaller pension contributions since the second quarter of 2020.

48 'Private self-administered pension fund assets' refers to the various private sector pension funds.

49 'Official pension fund assets' refers to the Government Employees Pension Fund.

Figure 40: Privately administered (left) and government (right) pension fund assets

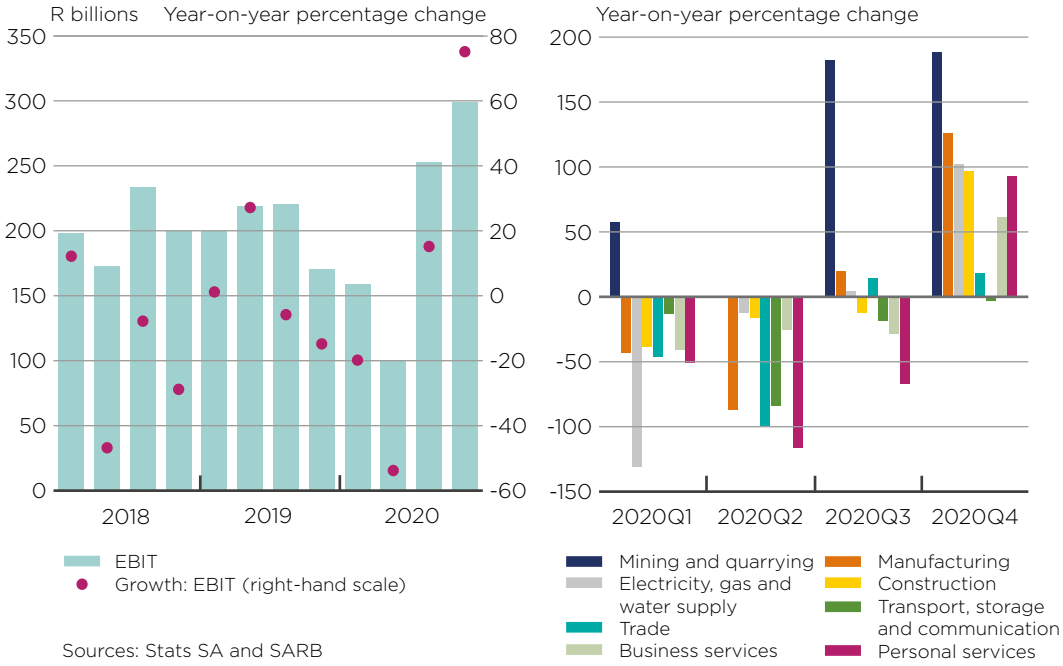


Source: SARB

Non-financial corporates

Non-financial corporate earnings recovered as COVID-19 containment measures were lifted. Following a year-on-year decline in corporate earnings before interest and taxes (EBIT) of 54% in the second quarter of 2020, EBIT rebounded by 17% and then 75% year on year in the third and fourth quarters respectively (Figure 41). EBIT in the third quarter exceeded 2019 levels for the first time in 2020, while fourth-quarter EBIT rose to a three-year high. While it is encouraging to see such a strong earnings rebound, the sustainability thereof is highly dependent on the direction of the pandemic as well as on the nature of possible future containment measures.

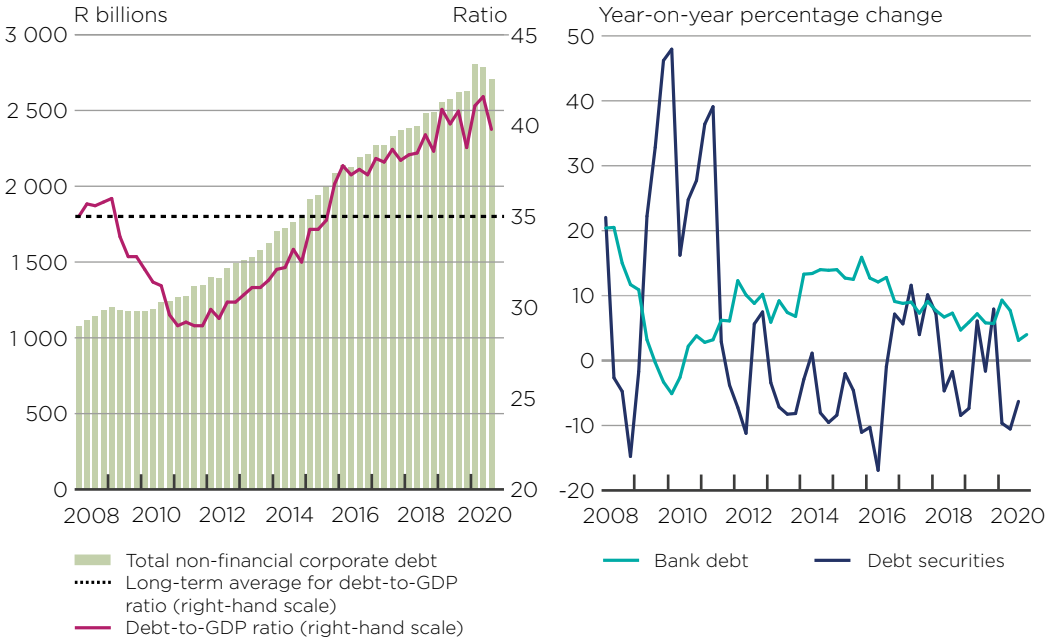
Figure 41: Aggregate (left) and sectoral (right) non-financial corporate EBIT



Sources: Stats SA and SARB

The sector's debt-to-GDP ratio is well above its long-term average, but has recently moderated. The rand value of corporate debt peaked at just over R2.8 trillion in the first quarter of 2020 and declined slightly over the following two quarters. This was driven by weak growth in bank credit extended to the sector (averaging 3.5% year on year in the second half of 2020) as well as a decline in the issuance of debt securities by corporates (Figure 42). Growth in total outstanding debt securities remained negative throughout the first three quarters of 2020. When expressed as a share of GDP, corporate debt moderated to 39.8% in the third quarter of 2020 after reaching a high of 41.6% in the previous quarter. The corporate debt-to-GDP ratio is currently about 5 percentage points above its long-term average.

Figure 42: Non-financial corporate sector debt* (left) and credit extension to the sector (right)

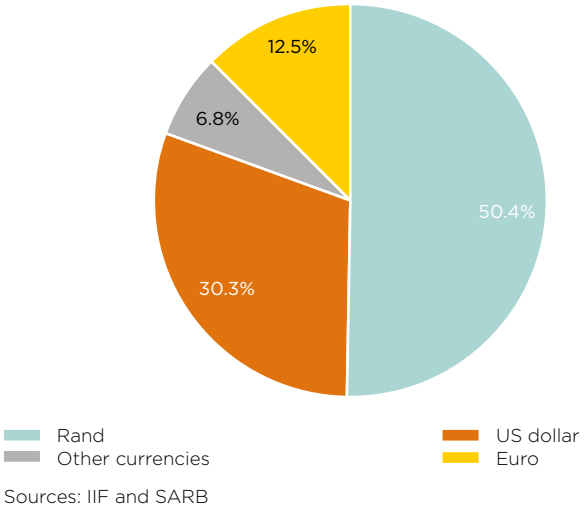


* Non-financial corporate debt excludes cross-border bank loans.

Sources: BIS and SARB

A significant portion of corporate debt is denominated in foreign currency, but many corporates also have large foreign currency revenues. As at the fourth quarter of 2020, approximately 50% of the non-financial corporate sector's debt was denominated in foreign currency (Figure 43). The high share of foreign debt exposes the sector to the risk of a rapid tightening of global financial conditions should monetary policy begin normalising in advanced economies. If this were to materialise, it could drive up the cost of foreign currency funding over time. A key component of the risk associated with foreign debt is the extent to which a firm's asset mix matches its debt in terms of currency composition and term structure. Firm-specific data are difficult to match precisely, but many large corporates in South Africa have a significant presence abroad with substantial foreign currency revenues and assets. This is likely to materially mitigate currency risk on these firms' balance sheets.

Figure 43: Currency composition of non-financial corporate debt as at the fourth quarter of 2020



Sources: IIF and SARB

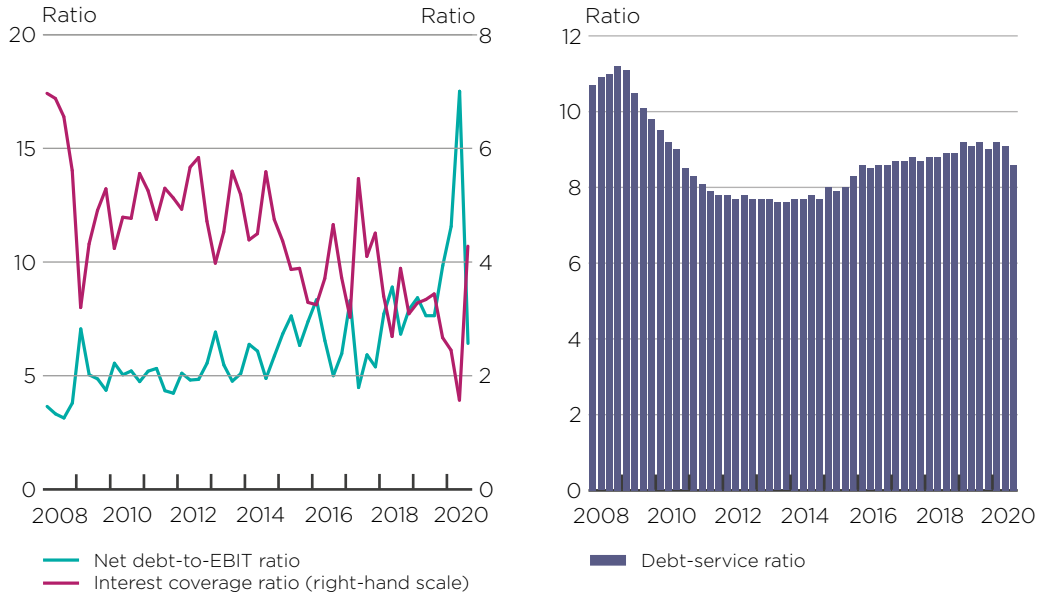
Low interest rates and increased earnings are translating into improved debt-service capacity. Firms have become increasingly leveraged in recent years, as evidenced by the elevated ratio of net debt to EBIT[50] (Figure 44). This ratio peaked at 17.5 in the second quarter of 2020 as earnings collapsed in the wake of COVID-19. The ratio then moderated to 6.4 in the third quarter, but remains above the general threshold for high leverage (at a ratio of 4). Despite relatively high levels of debt in the sector, debt-service capacity is improving. The sector's interest coverage ratio (ICR)[51], which assesses a firm's ability to generate cash to service debt obligations, increased from 1.6 in the second quarter of 2020 to 4.3 in the third quarter. In addition, firms are facing a declining debt-service ratio[52], indicating that less of their income is being used to service debt. The debt-service ratio fell to a four-year low of 8.6% in the third quarter of 2020 (from 9.1% in the second quarter). The lower debt-service ratio reflects in large part the drop in domestic interest rates that occurred during 2020.

50 Net debt is calculated as total debt minus local and foreign currency deposits. Deposits are used as a proxy for cash and cash equivalents. As a general rule, firms with a net debt-to-EBIT/EBITDA ratio higher than 4 are considered highly leveraged. See the *IMF Global Financial Stability Report*, April 2018.

51 The ICR estimates a firm's ability to generate enough cash flow to finance its interest expenses on outstanding debt by dividing a firm's EBIT by its annual interest expenses. A conservative IMF benchmark identifies firms with income that covers interest expenses by less than two times as 'weak'. According to the IMF, an ICR below 1 is defined as a 'technical default'. In such a situation, many of these firms can survive for some time by selling assets to meet their debt obligations, but if their ICRs remain below 1 for a sustained period of time, they could eventually run out of assets and default on their debt obligations.

52 The debt-service ratio reflects the share of income used to service debt.

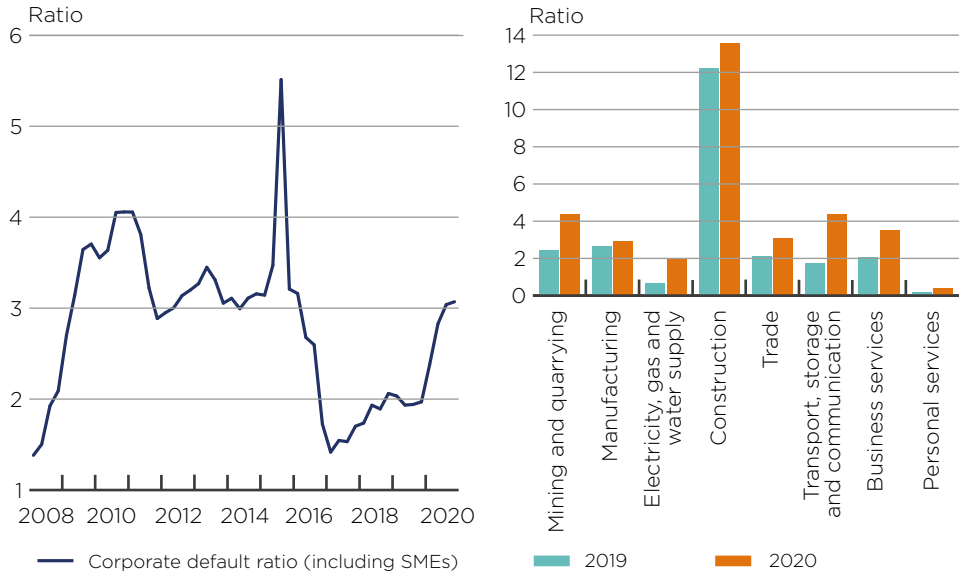
Figure 44: Leverage, debt-service capacity (left) and the debt-service ratio (right)



Sources: BIS, Stats SA and SARB

Corporate defaults increased in 2020, but remain well below the levels seen following the global financial crisis. The sector's default ratio[53] jumped from 2% at the end of 2019 to 3.1% in the fourth quarter of 2020. Every major industry reported an increased rate of defaults in 2020 (Figure 45). Encouragingly, the default ratio remains well contained by historical standards (it peaked at 4.1% after the global financial crisis) and the rate of increase slowed significantly in the fourth quarter of 2020.

Figure 45: Corporate sector (left) and industry level (right) default ratios



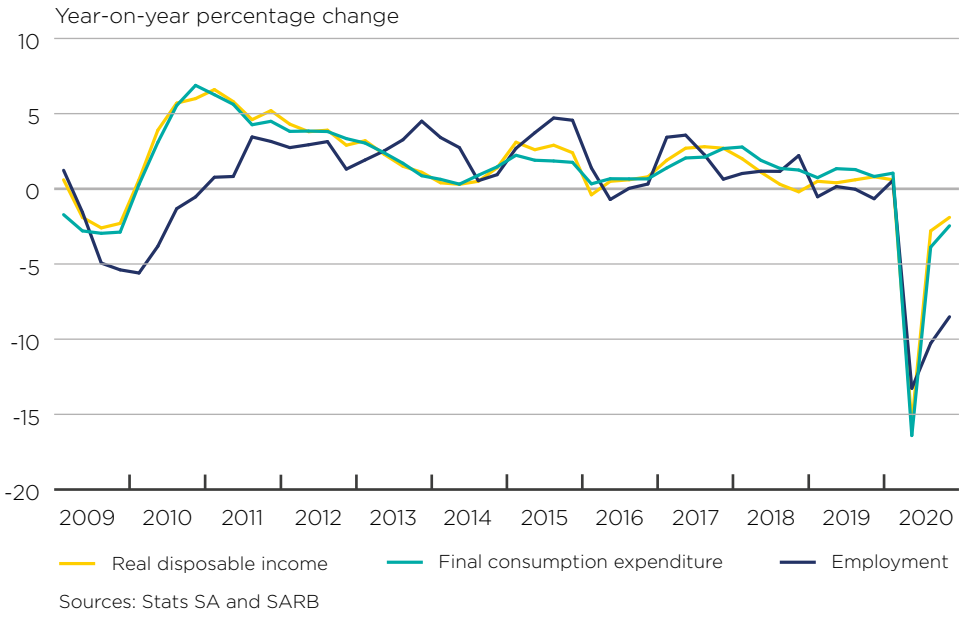
Source: PA

53 The default ratio is calculated as the value of defaults divided by total loans to the sector.

Households

Household income has remained under pressure amid a weak labour market. The relaxation of lockowdown measures in the second half of 2020 supported a partial rebound in employment after 2.3 million jobs were lost in the first half of the year. However, by the end of 2020, there remained a significant employment deficit compared with pre-pandemic levels (approximately 1.4 million jobs or 8.5% of employees). As a consequence of lower wages and salaries, household disposable income fell steeply in the second quarter of 2020 (-15.6% year on year) with the rate of growth remaining negative in the second half of the year (averaging -2.3% year on year).

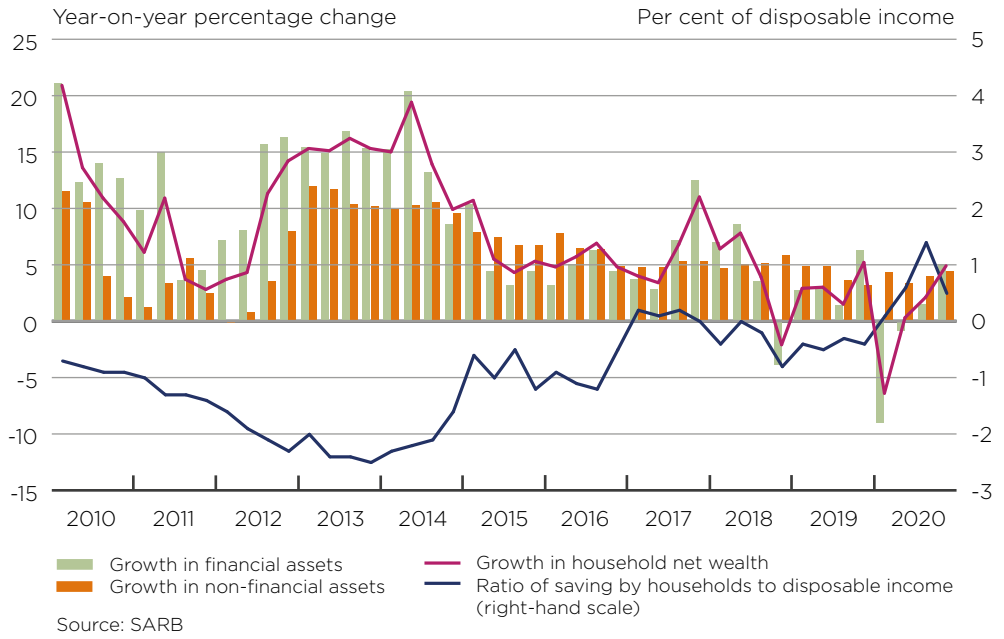
Figure 46: Real disposable income, consumption expenditure and employment growth rates



Sources: Stats SA and SARB

Household net wealth increased in the second half of 2020 as asset prices recovered. Household assets grew by an average year-on-year rate of 3.6% in the second half of 2020, after declining by a year-on-year rate of nearly 2% in the first half of 2020. The recovery was driven by a rebound in financial asset prices. Household wealth has also been bouyed by an increased rate of savings in recent quarters. As a ratio of household income, savings reached a decade high in the third quarter of 2020 (1.4%) before moderating to 0.5% in the fourth quarter (Figure 47). Relatively high levels of household savings in 2020 may reflect a combination of elevated economic uncertainty as well as reduced opportunities to spend (as a result of the various COVID-19-induced lockdown restictions). Improvements in the level of household net wealth are an encouraging sign of strength on the balance sheets of some households.

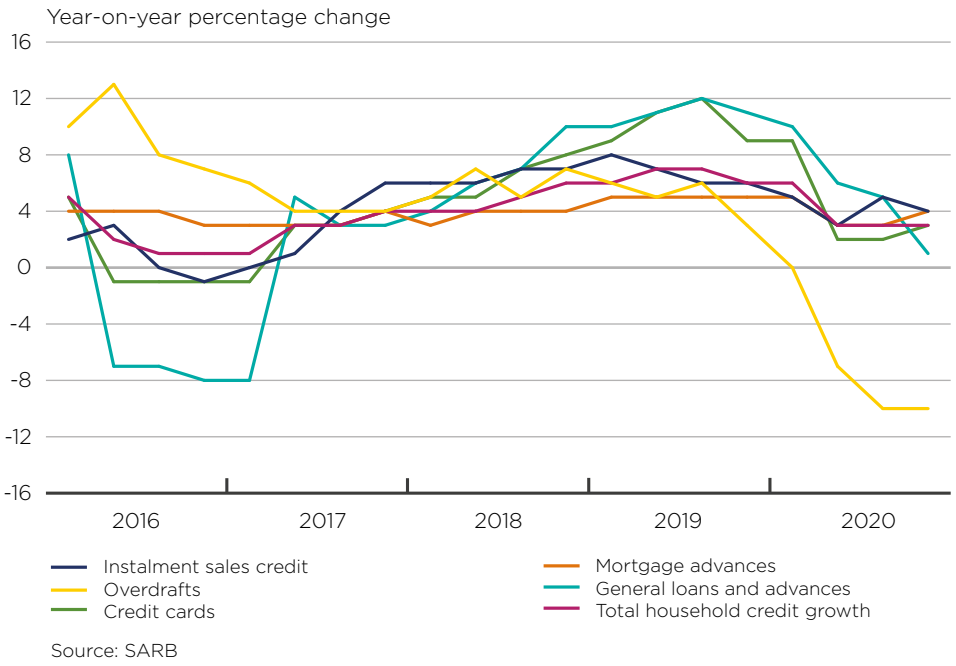
Figure 47: Household sector wealth and savings



Source: SARB

Credit extension to households has remained weak. Growth in credit extended to households moderated slightly to a three-year low of 3% year on year in the fourth quarter 2020 (Figure 48). The recent weakness in credit extension was driven primarily by declining growth in the provision of unsecured credit. Meanwhile, secured credit growth was relatively stable in 2020, with the mortgage and instalment sales credit categories picking up slightly in the second half of the year. It is likely that the low interest rate environment has provided a boost to secured credit categories, as the interest rate on these loans is more closely correlated to the repo rate. Furthermore, there is a widening gap between the repayment performance of these two loan types (Figure 50), which may explain why the growth in secured credit has increased on a relative basis recently.

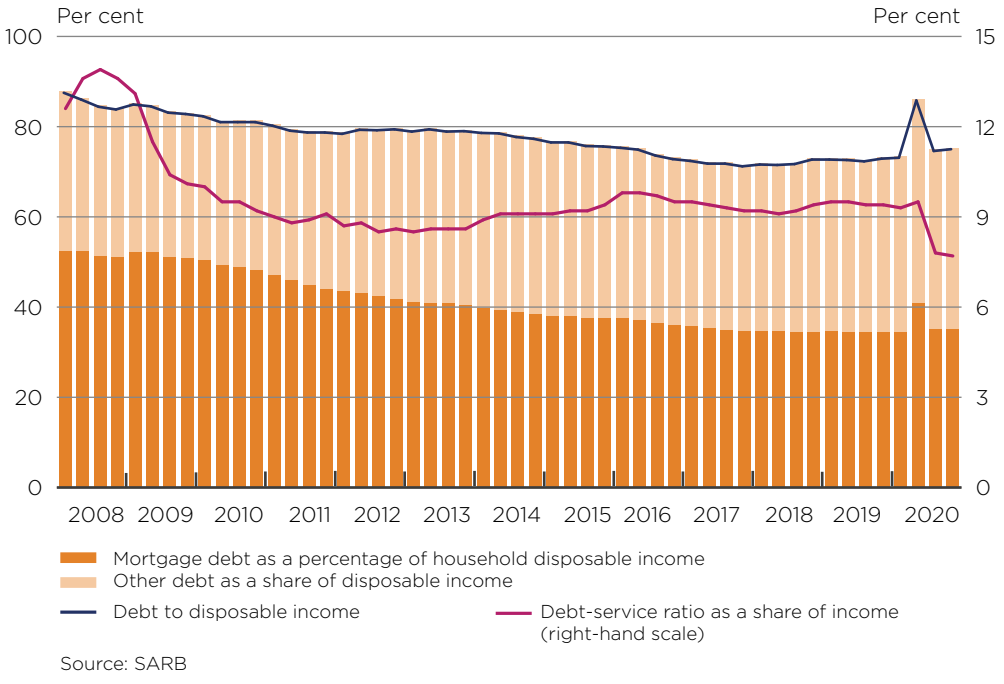
Figure 48: Nominal growth in credit extended to households



Source: SARB

Low interest rates have significantly improved the debt-service capacity of households. After a long period of moderation (following the global financial crisis) household debt-to-disposable income increased in 2020, reaching 75.3% in the fourth quarter of 2020. Despite this, the cost of servicing debt for households fell to 7.7% of income at the end of 2020, down from 9.5% at the end of the previous year and the lowest level in more than 14 years (Figure 49). In large part, declining debt-service costs reflect the 300 basis point reduction in the repo rate undertaken by the SARB in 2020, bringing the level of the repo rate to a record low. Interest rates may rise over the short to medium term as the economy gradually recovers, which could reverse the favourable trend in the debt-service cost ratio.

Figure 49: Household debt and debt-service costs as a share of income

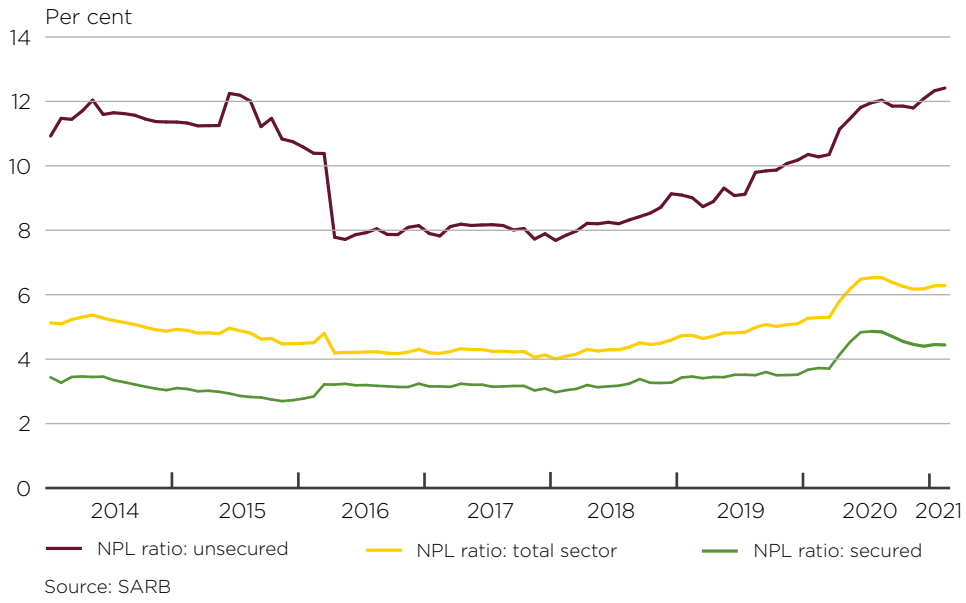


Source: SARB

Despite lower debt-service costs, household non-performing loan (NPL) ratios[54] remain relatively high. The NPL ratio for secured household credit peaked at 4.9% in July 2020 before moderating slightly to 4.4% by February 2021. However, the unsecured credit NPL ratio has continued to increase, reaching a six-year high of 12.4% in February 2021. The widening gap between the two metrics suggests that certain segments of the household sector continue to face severe financial pressure as a result of COVID-19. The increase in the unsecured NPL ratio may reflect the impact of the tighter lockdown measures imposed during December 2020 and January 2021.

54 The NPL ratio is the ratio of the value of household NPLs to total outstanding household loans. NPLs are defined as loans for which debt-service payments are 90 days or more overdue.

Figure 50: Household non-performing loans

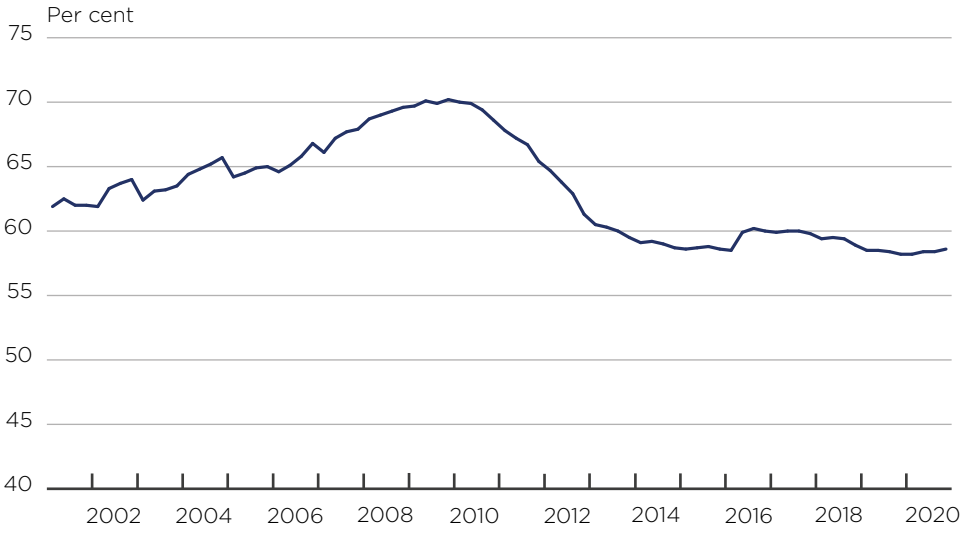


Source: SARB

Residential real estate

Residential mortgage loans account for more than half of bank credit to households in South Africa. Mortgage advances peaked in 2009 at just over 70% of total household loans from the banking sector (Figure 51). This peak coincided with that of many other countries as the run-up to the global financial crisis saw an acceleration in house prices and a strong supply of mortgage credit. This trend has reversed over the past decade, and at 59% of household credit, mortgage advances remain the single largest exposure of banks to households.

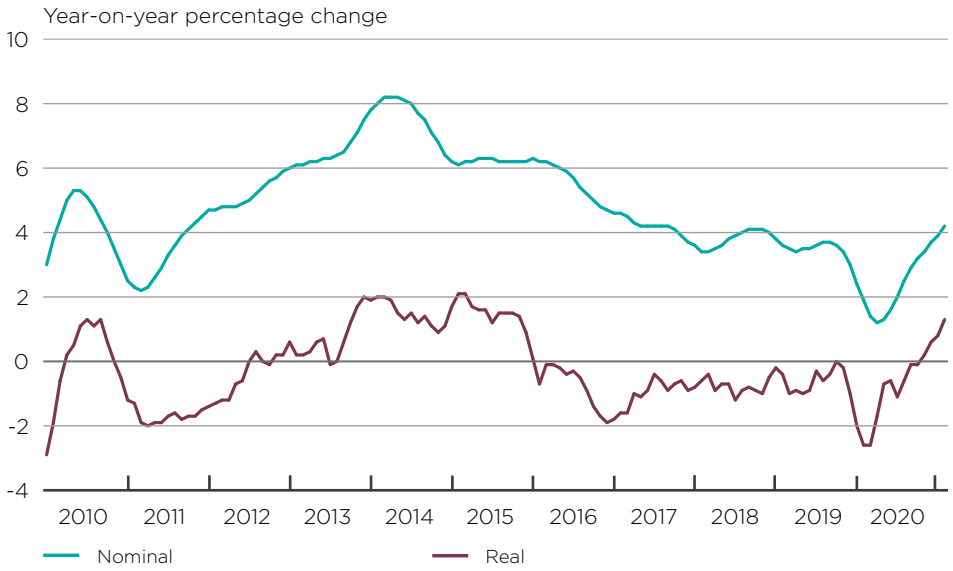
Figure 51: Mortgages as a share of total credit to households from the banking sector



Source: SARB

House prices are showing signs of recovery from the 2020 dip. House price growth (in nominal terms) moderated in the first half of 2020, reaching a trough of 1.2% year on year in April and May (Figure 52). Prices have since rebounded, with nominal growth rates returning to levels seen prior to the emergence of COVID-19. Furthermore, for the first time in more than five years, house prices have started to increase at a faster pace than inflation. Price growth has been supported by the significant reduction in interest rates during 2020, which has enhanced mortgage affordability for most borrowers.

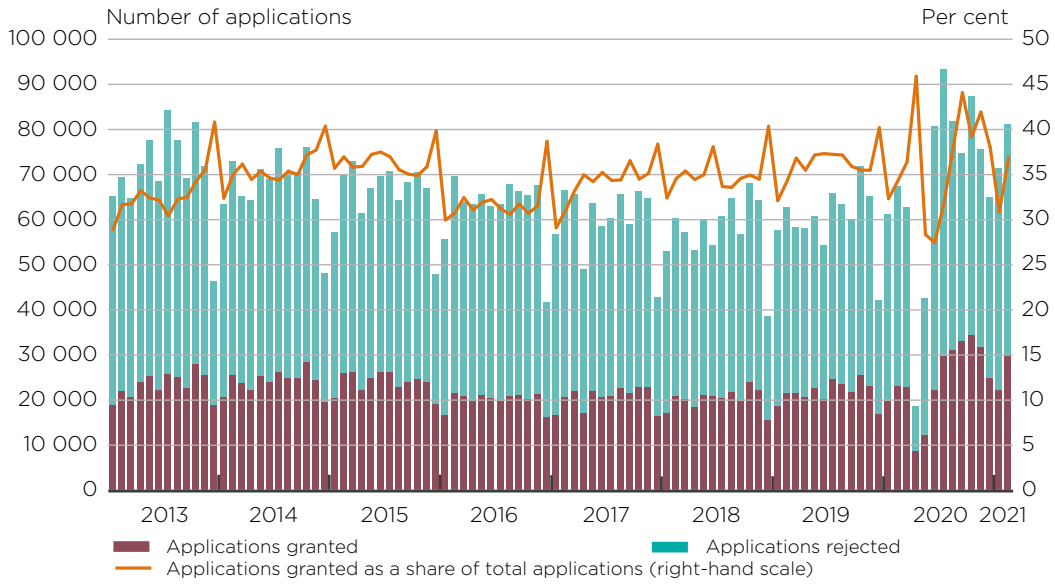
Figure 52: Real and nominal house price indices



Sources: BIS, Stats SA and SARB

The number of mortgage applications received and approved by banks has been unusually high in recent months. In the second half of 2020, mortgage credit applications increased to record highs and the share of applications being approved by banks also rose to unusually high levels (Figure 53). While the approval rate has moderated to more normal levels since the start of 2021, the number of mortgage applications has remained above average. The strong increase in mortgage applications during the second half of 2020 may have been linked to pent-up demand following the strict lockdowns in the second quarter of 2020 and the temporary closure of the deeds office. However, demand for mortgage loans is also likely being driven by improved affordability in some segments of the market as interest rates have come down. This would explain the increased growth in house prices.

Figure 53: Mortgage credit applications



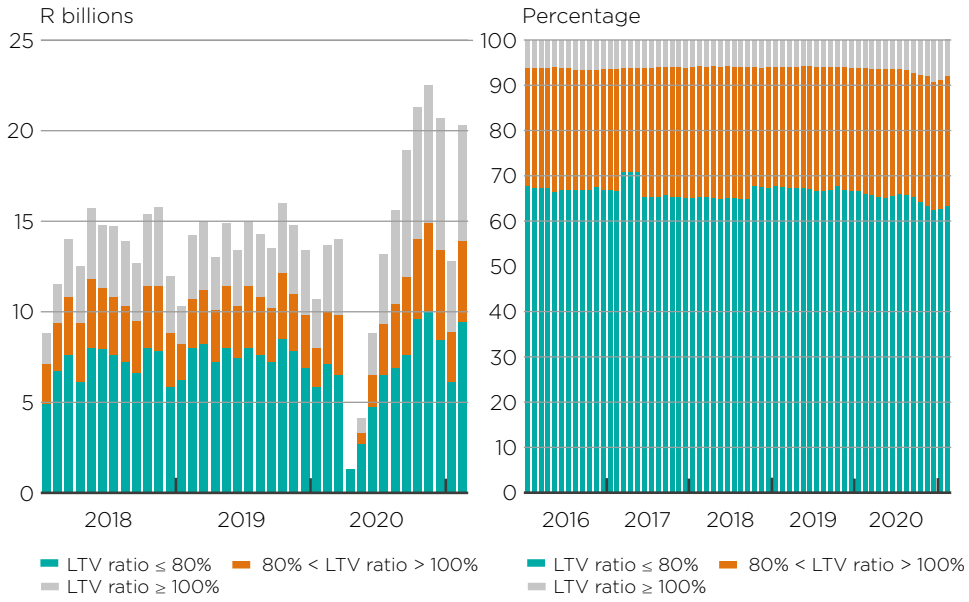
Source: PA

The recent increase in the value of mortgage originations provides a further indication of buoyancy in the housing market. After declining to a historical low of R1.4 billion in April 2020, new mortgage originations rose to R22.4 billion in November 2020 – the highest level observed in three years (Figure 54). In the second half of 2020, approximately a third of new mortgages were granted at a loan-to-value (LTV) ratio[55] greater than or equal to 100% (a considerable increase on the average of 22% over the past five years). This was reflective of increased risk appetite from lenders. High LTV mortgages are riskier since they are more likely to fall into negative equity[56] in the event of a downturn in house prices. As a result, high LTV loans are more likely to lead to losses for mortgage finance institutions if houses are repossessed. Although loans granted at an LTV greater than or equal to 100% have increased from the levels observed in the past few years, they currently account for only 8% of the banking sector's mortgage loan book (Figure 54).

55 An LTV ratio measures the value of a mortgage loan relative to the price of the house being purchased. A 100% LTV means that the loan is the same value of the house and therefore no down payment is being made by the purchaser. A 50% LTV means that the mortgage loan is only half the value of the home being acquired. A higher LTV implies greater risk for the bank making the loan.

56 Negative equity occurs when the value of a property falls below the outstanding balance on the mortgage loan. It is calculated by subtracting the current market value of a property from the outstanding balance on the mortgage loan.

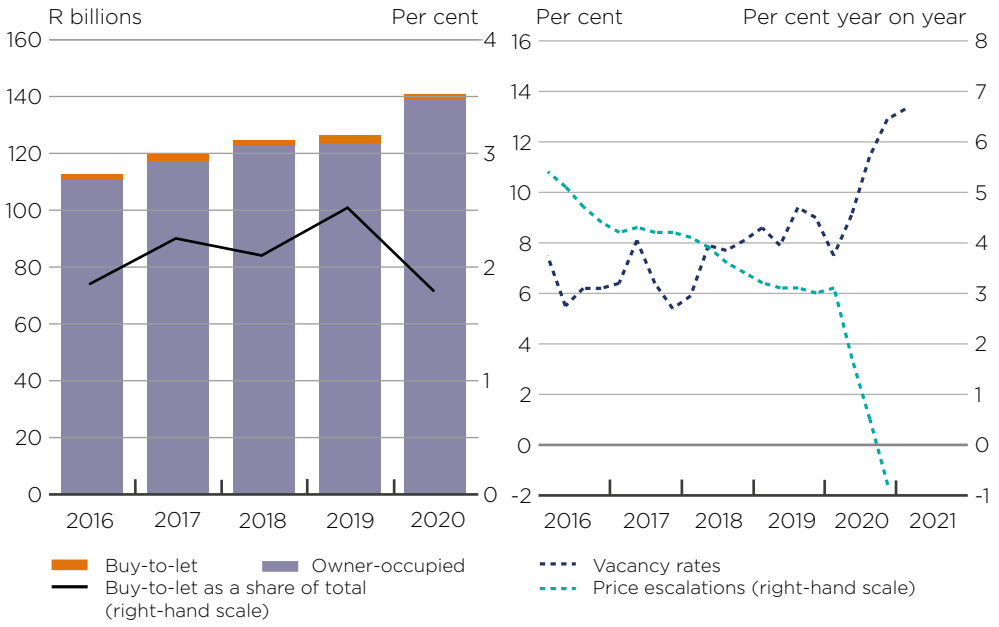
Figure 54: Loan-to-value ratios for new mortgage originations (left) and as a share of the total mortgage loan book (right)



Source: PA

The residential rental market is under strain. The value of new mortgages originated for owner-occupied properties increased by over 12% in 2020 (Figure 55). This was a significantly stronger increase than in any of the past four years. Meanwhile, the value of new mortgage credit provided for buy-to-let properties fell by 21% in 2020. As the decline in interest rates has supported the affordability of home loans, some households that were renting may have used the opportunity to purchase a home instead. However, it is primarily the deterioration in broader economic conditions during 2020 that has caused national residential vacancy rates to increase significantly (Figure 55). Further highlighting the strain on the rental market is the consistent downward pressure on rental price escalations, which turned negative in the fourth quarter of 2020 for the first time in at least five years. If the deteriorating conditions in the residential rental market persist, they could place pressure on property investors. However, it is unlikely that the impact on the banking sector will be significant, given that buy-to-let mortgages account for a very small portion of total mortgage advances.

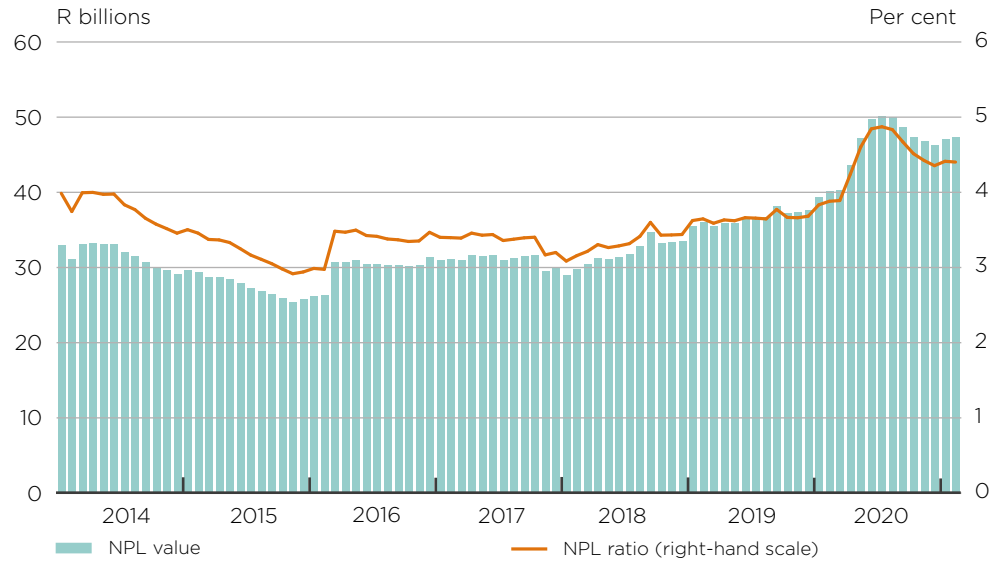
Figure 55: The value of new mortgage originations based on composition (left) and residential rental vacancy rates and price escalations (right)



Sources: PA and TPN

Mortgage NPLs decreased in the second half of 2020, but this trend reversed at the start of 2021. NPLs increased sharply in 2020, peaking at 4.9% of outstanding mortgage loans in July (Figure 56). NPLs began to decline from July 2020 in line with a broader recovery in economic activity, reaching 4.3% by December. However, the NPL ratio increased anew in early 2021. This resurgence may reflect the lingering effects of the COVID-19 pandemic.

Figure 56: Mortgage non-performing loans



The NPL ratio measures the value of mortgage NPLs relative to total mortgage loans and advances.

Source: PA

Appendix: Banking and insurance sector indicators

Banking sector indicators

	2017	2018	2019	2020
Market share in terms of assets (five largest banks)	90	90	90	90
Gini concentration index	83	83	83	83
Herfindahl-Hirschman Index (HH-index)	0.2	0.2	0.2	0.2
Banks' share prices (year-on-year percentage change)	13.5	22.2	-1.8	-36.2
Total assets (R billions)	5 006	5 311	5 769	6 457
- Year-on-year percentage change	3.1	6.1	8.6	11.9
Total loans and advances (R billions)	3 791	3 945	4 249	4 542
- Year-on-year percentage change	2.7	4.0	7.8	6.9
Total capital adequacy ratio	16.3	16.4	16.5	16.2
Tier 1 capital adequacy ratio	13.4	13.3	13.5	13.1
Common equity tier 1 capital adequacy ratio	12.9	12.8	12.7	12.3
Impaired advances (R billions)*	108	137	162	212
Impaired advances to gross loans and advances	2.8	3.5	3.8	4.7
Specific credit impairments (R billions)	47	61	74	92
Specific credit impairments to impaired advances	43.7	44.3	45.5	43.6
Specific credit impairments to gross loans and advances	1.2	1.5	1.7	2.0
Return on assets (smoothed)	1.3	1.3	1.2	0.8
Return on equity (smoothed)	16.8	15.8	15.3	10.2
Interest margin to gross income (smoothed)	57.2	56.7	56.8	58.2
Operating expenses to gross income (smoothed)	55.7	57.2	58.2	58.3
Liquid assets to total assets (liquid asset ratio)	9.6	10.2	11.1	12.2
Liquid assets to short-term liabilities	19.0	20.5	22.4	24.1
Liquidity coverage ratio	116.4	125.1	146.9	142.2

All data are averaged for the year shown and reported in percentages, unless stated otherwise.

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

Source: SARB

Insurance sector indicators

	2016	2017	2018	2019	2020
Market share in terms of assets (five largest life insurers)	74	73	73	74	73
Market share in terms of gross written premiums (five largest non-life insurers)	48	47	46	48	47
Balance sheet					
Total assets: life insurers (R billions)	2 672	2 929	3 011	3 144	3 255
Total assets: non-life insurers (R billions)	149	161	197	207	239
Total liabilities: life insurers (R billions)	2 514	2 769	2 638	2 761	2 910
Total liabilities: non-life insurers (R billions)	91	98	115	117	128
Profitability					
Gross written premiums: life insurers (R billions)	499	486	530	551	564
Net profit before tax and dividends: life insurers (R billions)*			45	45	12
Individual lapse ratio: life insurers	56	63	61	91	66
Gross written premiums: non-life insurers (R billions)	127	137	144	160	159
Combined ratio: non-life insurers	87	77	97	97	113
Operating profit ratio: non-life insurers	21	22	15	23	16
Solvency and capital*					
Solvency capital requirement coverage ratio (median): life insurers			1.9	2.0	1.9
Minimum capital requirement coverage ratio (median): life insurers			4.3	4.2	4.3
Solvency capital requirement coverage ratio (median): non-life insurers			1.8	1.8	1.9
Minimum capital requirement coverage ratio (median): non-life insurers			3.9	4.0	4.4

All data are averaged for the year shown and reported in percentages, unless stated otherwise.

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

Source: SARB

Abbreviations

ASISA	Association for Savings and Investment South Africa
AUM	assets under management
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CAR	capital adequacy ratio
CCyB	countercyclical capital buffer
CIS	collective investment scheme
COVID-19	coronavirus disease 2019
EBA	European Banking Authority
EBIT	earnings before interest and taxes
EBITA	earnings before interest, taxes and amortisation
FCI	Financial Conditions Index
Fitch	Fitch Ratings
FSB	Financial Stability Board
FSC	Financial Stability Committee
FSLAB	Financial Sector Laws Amendment Bill
FSR	*Financial Stability Review*
FSR Act	Financial Sector Regulation Act 9 of 2017
GDP	gross domestic product
ICR	interest coverage ratio
IIF	Institute of International Finance
IMF	International Monetary Fund
IRB	internal ratings-based (approach)
IT	information technology
Jibar	Johannesburg Interbank Average Rate
JSE	JSE Limited
LCR	liquidity coverage ratio
LGS	Loan Guarantee Scheme
LTV	loan-to-value (ratio)
MMF	money market fund
Moody's	Moody's Investors Service
NII	net interest income
NPL	non-performing loan
NT	National Treasury
PA	Prudential Authority
RAM	risk assessment matrix
repo	repurchase (rate)
ROE	return on equity
RPP	Resolution Policy Panel
RWA	risk-weighted asset
SARB	South African Reserve Bank
SCR	solvency capital requirement
SIFI	systemically important financial institution
SME	small- and medium-sized enterprise
SOE	state-owned enterprise
S&P	Standard & Poor's
Stats SA	Statistics South Africa
US	United States
VAF	vehicle and asset finance