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This issue of the Financial Stability Review focuses mainly on the six-month period ending December 2018. However, selected developments up to the date of publication are also reported on. Data may include own calculations made specifically for the purposes of this publication.

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ISSN: 1811-2226
Purpose of the *Financial Stability Review*

The primary objective of the South African Reserve Bank (SARB) is to protect the value of the currency 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 this objective, and to promote a stable financial system, the SARB publishes a semi-annual *Financial Stability Review*. The publication aims to identify and analyse potential risks to financial system stability, communicate such assessments, and stimulate debate on pertinent issues. The SARB recognises that it is not the sole custodian of financial system stability, but that it contributes significantly towards and coordinates a larger effort involving government, other regulators, self-regulatory agencies, and financial market participants.

**Defining ‘financial stability’**

Financial stability is not an end in itself but, like price stability, is generally regarded as an important precondition for sustainable economic growth, development, and employment creation.

Financial stability refers to a financial system that is resilient to systemic shocks, facilitates efficient financial intermediation, and mitigates the macroeconomic costs of disruptions in such a way that confidence in the system is maintained.
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1.1 Selected indicators of the South African banking sector .................................. 40
Overview

The South African Reserve Bank (SARB) regularly assesses the risks to financial stability with a view of identifying and mitigating any vulnerabilities that may be present in the domestic financial system.

The identified risks, which form part of the SARB’s assessment, include: (i) a deteriorating domestic fiscal position, exacerbated by, among other things, weak domestic growth, a poor revenue outlook, deteriorating debt dynamics and the fragile financial positions of state-owned enterprises (SOEs); (ii) spillovers from weaker global economic growth, mostly emanating from a slowdown in Europe and China, an escalation of trade tensions and the prospect of a no-deal Brexit; (iii) the possibility of renewed and unexpected tightening in global financial conditions, which in turn could result in a rapid repricing of risk. A disconnect between market expectations and the implemented policy of major central banks could raise the risk of a sudden market correction, which, if combined with a deterioration in market sentiment, could have a significant negative impact on financial market conditions in South Africa and ultimately on economic growth; and (iv) rising cyber dependency and security risks attributed to increasing digital interconnection of people, systems and organisations. Cyberattacks could have direct material consequences for institutions through financial losses as well as indirect costs such as diminished reputation.

Given South Africa’s high level of interconnectedness with the global financial system, weaker global economic activity could lead to negative spillovers into the domestic economy and financial system through the trade, financial and investment channels. South Africa’s economy expanded by 1.4% in the fourth quarter of 2018, with GDP averaging 0.8% for the year. The country’s growth outlook remains weak in the near term, but is expected to recover over the medium term. Besides being negatively affected by exogenous factors, domestic growth is expected to face headwinds from a deteriorating fiscal position and persistent weakness in some significant SOEs, electricity supply constraints, high unemployment and low business confidence. The SARB’s latest forecast for domestic growth is 1.0% in 2019 (down from 1.3% previously). The forecast for 2020 is 1.8% (from 2.0%), rising to 2.0% in 2021 (from 2.2%).

Global risk sentiment deteriorated during the fourth quarter of 2018, reflecting concerns about slowing global growth, tightening global financial conditions and uncertainty on trade relations between the United States (US) and China, as well as Brexit. However, sentiment towards risky assets improved significantly since late December 2018, mostly owing to a pivot by major central banks to a more dovish monetary policy stance. As a result, most risky assets recorded notable gains since the beginning of 2019 and measures of volatility declined to multi-year lows. Emerging markets with strong fundamentals benefited from the positive sentiment, as reflected in narrower credit default swap spreads. A risk to this positive scenario is that, should US economic growth and inflation surprise to the upside, this could likely result in a renewed tightening of global financial conditions and a subsequent repricing of risk that could negatively impact on emerging markets, as witnessed in 2018. In addition, some emerging markets remain vulnerable to idiosyncratic risks. In South Africa, gains in financial asset prices were limited by the worsening of public sector finances and the risk of further sovereign credit rating downgrades to sub-investment grade.

The banking sector remains well capitalised at levels considerably above the minimum regulatory requirement. Impaired advances have continued to increase since January 2018 due to a combination of the implementation of the new expected credit loss accounting standard, International Financial Reporting Standard (IFRS) 9, and the deterioration in the credit quality of selected corporate and retail loan categories. In the current extended period of low economic growth, credit risk can arise from increasing financial stress in corporates and small- and medium-sized entities (SMEs) as well as households affected by job losses and/or deteriorating disposable income. The construction, manufacturing, wholesale and retail trade, and private household sectors exhibited the highest growth in default ratios since September 2017. Although not always indicative of the trend in the sector, the return on equity and assets of smaller banks has been declining (since May 2018) as a result of the reduction in non-interest income and increases in credit loss and operating expenses. By contrast, the return on equity and assets of the five largest banks increased marginally as their more diversified income streams provide additional resilience to profitability.

The financial position of households remains weak due to a combination of lower disposable income, a decline in net wealth and a significant increase in household debt. Overall, while there are concerns about the ability of households to service their debt, interest rates have remained relatively stable, thereby providing the sector with some relief.

Corporate profitability rose slightly in the 4th quarter of 2018. However, overall, profitability has been on a downward trend since the first quarter of 2018 due to subdued economic

Financial Stability Review first edition 2019
conditions and a sharp slowdown in the growth of non-financial corporate deposits. There has also been a slowdown in gross fixed capital formation, which could lead to lower economic growth prospects, further impeding profitability.

Fiscal sustainability remains an important factor for South Africa’s sovereign credit rating. As a percentage of gross domestic product (GDP), government debt has doubled over the past 10 years, but remains below the 70% threshold level identified as high risk by the International Monetary Fund (IMF). Key fiscal metrics have continued to deteriorate during the reporting period and fiscal consolidation efforts have been hindered by debt-burdened SOEs that have struggled to meet their debt obligations. This adds to the probability of these contingent liabilities materialising on government’s balance sheet, thereby negatively impacting government debt levels. Eskom was recently granted a cumulative R69 billion over three years in support of its financial position. Despite the financial support, Eskom’s balance sheet remains stressed and continues to pose a systemic risk to the country’s economy.

For the period under review, there have been a number of legislative and regulatory initiatives that, once implemented, could enhance the resilience of the South African financial system. These include the release, for public comment, of the Conduct of Financial Institutions Bill and the proposed Financial Matters Amendment Bill.1 The review of the National Payment System Act 78 of 1998 to take into account changes in the payment landscape and to align the regulation of the payment system to international best practice is also underway. The national payment system (NPS) plays a critical role in the settlement of domestic and international payment transactions and is key to a stable financial system.

In conclusion, since the previous edition of the Financial Stability Review (FSR), global economic growth has slowed, and medium-term risks remain tilted to the downside. More recently, indications of continued less restrictive monetary policy by central banks in advanced economies, against a backdrop of slowing global growth, have led to easier financial conditions which supported global risk sentiment. Aside from being affected by exogenous factors through trade, investment and financial channels, South Africa’s growth prospects will be affected by domestic policy setting and idiosyncratic risks, reflected in the deterioration of a number of key indicators. Despite these challenges, the South African financial system continues to efficiently facilitate financial intermediation and mitigate negative spillovers and disruptions. Overall, the financial sector remains strong and stable, even with some headwinds from increased uncertainty around global economic policy, a challenging low domestic economic growth environment and persistent fiscal risks. The South African financial sector is also characterised by well-regulated, highly-capitalised, liquid and profitable financial institutions, supported by a robust financial infrastructure and strong regulatory and supervisory frameworks.

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1 The Financial Matters Amendment Bill was passed by the National Council of Provinces on 28 March 2019, and is to be submitted to the President for assent.
Financial stability developments and trends

Summary of financial stability risk assessment for South Africa

The SARB regularly assesses the risks to financial stability in the next 12 months, with a view to identifying and mitigating any risks and/or vulnerabilities in the domestic financial system. Potential threats to financial stability are identified and rated according to the likelihood of their occurrence as well as their expected impact on the domestic financial system (Table 1). The identified risks are classified as ‘high’, ‘medium’ or ‘low’ in terms of both the likelihood of each risk materialising and its possible impact on financial stability.

Table 1  The risk assessment matrix

<table>
<thead>
<tr>
<th>Source of risk</th>
<th>Expected impact on financial stability in South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deteriorating domestic fiscal position</strong></td>
<td></td>
</tr>
<tr>
<td>Likelihood: high</td>
<td>Impact: high</td>
</tr>
<tr>
<td>• Deteriorating debt dynamics and limited fiscal space</td>
<td>• Deteriorating fiscal position, rising debt levels and increase in taxes</td>
</tr>
<tr>
<td>• Weak economic growth and revenue collection outlook</td>
<td>• Lower household and corporate income and investment</td>
</tr>
<tr>
<td>• Fragile financial position of SOEs contributing to rising fiscal risk</td>
<td>• Sovereign credit ratings downgrade triggering capital outflows</td>
</tr>
<tr>
<td>• Rising public sector wage bill and cost of debt crowding out investment spending</td>
<td>• Tighter financial conditions due to negative investor sentiment</td>
</tr>
<tr>
<td>• Increasing borrowing requirements</td>
<td>• Increase in financing costs</td>
</tr>
<tr>
<td></td>
<td>• Rising public sector wage bill and cost of debt crowding out investment spending</td>
</tr>
<tr>
<td></td>
<td>• Increasing borrowing requirements</td>
</tr>
<tr>
<td><strong>Weaker global economic growth and spillover to South Africa</strong></td>
<td></td>
</tr>
<tr>
<td>Likelihood: medium</td>
<td>Impact: high</td>
</tr>
<tr>
<td>• Persistent decline in economic growth rate of advanced economies</td>
<td>• Lower external demand for South African exports</td>
</tr>
<tr>
<td>• Temporary decline in economic growth rate of emerging market economies</td>
<td>• Lower domestic economic growth</td>
</tr>
<tr>
<td>• Uncertainty about Brexit outcomes</td>
<td>• Higher unemployment</td>
</tr>
<tr>
<td>• Impact of US shutdown</td>
<td>• Weak business confidence resulting in a decline in fixed investment</td>
</tr>
<tr>
<td>• Escalation of trade tensions and likely spillover effects to the financial sector</td>
<td>• Weak fundamentals weigh on sovereign and corporate credit ratings, contributing to tighter financial conditions</td>
</tr>
<tr>
<td>• Slowdown in Chinese economy</td>
<td></td>
</tr>
<tr>
<td>• Subdued commodity prices</td>
<td></td>
</tr>
<tr>
<td><strong>Tightening of global financial conditions affecting emerging markets</strong></td>
<td></td>
</tr>
<tr>
<td>Likelihood: medium</td>
<td>Impact: high</td>
</tr>
<tr>
<td>• Divergence between US Federal Reserve (Fed) and other major central banks from market expectations</td>
<td>• Repricing of risk</td>
</tr>
<tr>
<td>• Narrowing between emerging market economies’ (EMEs) interest rates and Fed funds rate</td>
<td>• Capital outflows increase</td>
</tr>
<tr>
<td>• EMEs raising policy rates</td>
<td>• Exchange rate depreciation, lower investment and domestic growth</td>
</tr>
<tr>
<td>• Deteriorating market sentiment due to large public and private sector debt</td>
<td>• Slowing credit growth, increasing unemployment, rising debt levels and deteriorating asset quality of banks</td>
</tr>
</tbody>
</table>

**Rising cyber dependency and security risks**

| Likelihood: medium | Impact: high |
| • Disruptive impact of breaches that relate to ransomware | • Corporate security breaches and disruption of business operating systems, work stoppages and large ransoms |
| • Targeting of critical infrastructure and strategic industries | • Crash of crucial financial infrastructure (e.g. financial market trading platforms) |
| • Leaks of confidential market relevant information | • High replacement costs, falling profitability and negative impact on balance sheets of financial institutions |
| • Increasing world interconnectedness elevates vulnerability | |
In addition to the risks identified as more imminent in the risk assessment matrix, there have been other emerging sector-specific vulnerabilities that have emanated in the six-month period ending December 2018, that warrant close monitoring. A summary of these risks, which have been discussed throughout this edition of the FSR are shown in Figure 1.

Economic growth outlook and its potential impact on the financial sector

Without a stable financial system there is no basis for sustainable economic growth. Conversely, developments in the real economy also have an impact on financial stability. Low levels of economic growth could impact on financial stability through various channels, including higher unemployment and reduced ability to service debt by households and corporates. This, in turn, could lower the profitability of banks and insurers and impact negatively on the quality of banks’ assets.

Global economic growth has slowed, but stabilisation is expected in the period to 2021.

Global economic growth picked up in the first quarter of 2019, after significantly weaker economic growth during the fourth quarter of 2018. However, the momentum has slowed. Following growth of 3.6% in 2018, the IMF projects global growth of 3.3% in 2019 and 3.6% in 2020, that is, 0.4 and 0.1 percentage points below its October 2018 projections (Figure 2) respectively. Threats to the global growth projection include slowing growth in trade and investment, rising interest rates in emerging markets, tariff increases and persistent uncertainty in the trade tensions between the US and China. Furthermore, the prospect of a no-deal Brexit could lead to cross-border spillovers, also posing a threat to the global economic growth outlook.

According to the IMF, the slowdown in growth for advanced economies will possibly be driven by lower growth projections for the euro area, as lower growth in Germany, Italy and France weigh on the region’s growth prospects. Economic growth in the US is also expected to slow, reflecting the impact of the government shutdown in January 2019 and the fading impact of fiscal stimulus.

Emerging market economic growth is expected to slow down in 2019 due to weakening growth in China and recessions in Argentina and Turkey.

During the latter part of 2018, slower global growth, combined with tightening financial conditions, led to a loss of momentum in emerging markets. In 2019, weakening growth in China and economic recessions in Argentina and Turkey will moderate emerging-market growth outcomes. Weaker than expected growth in China is driven by domestic deleveraging and de-risking policies, although stimulus measures are expected to somewhat counter the impact thereof. Some recovery in emerging market economies’ performance in the latter part of 2019 is expected to be supported by improvements in India and Indonesia, amid improved domestic demand supported by strong investment, improving income growth and past reforms.3

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The sub-Saharan Africa (SSA) region experienced modest growth in 2018, but performance remained uneven, with some countries growing at levels above the regional average and others significantly below. Regional growth is expected to average 3.5% and 3.7% for 2019 and 2020 respectively (0.3 and 0.2 percentage points lower than the October 2018 WEO projections respectively). The recovery is expected to be supported by exports and private consumption as well as by rising agricultural production, mining production and services in some countries. While the economic growth outlook for the region has shown some improvement, the most recent forecasts reflect a moderation in commodity prices, particularly for large oil producers such as Angola and Nigeria. The region is also expected to be affected by maturing oil fields in Angola and subdued investment growth in South Africa.

**Domestic economic growth is expected to remain weak as sluggish global growth and domestic electricity supply constraints weigh on the outlook.**

South Africa’s economic growth increased by 1.4% in the fourth quarter of 2018, averaging 0.8% for the year. The country’s growth outlook remains weak in the near term, but like many of its emerging market peers, growth is expected to recover over the medium term. Besides being negatively affected by exogenous factors, domestic growth is expected to also be negatively affected by domestic electricity supply constraints. The SARB’s latest forecast is domestic growth of 1.0% in 2019 (down from a previous estimate of 1.3%). The forecast for 2020 is 1.8% (from 2.0%), rising to 2.0% in 2021 (from 2.2%). Challenges in high unemployment, low business confidence, low investment, lack of fiscal consolidation, mining production, and policy uncertainty are contributing factors to the subdued outlook for domestic growth.

Manufacturing activity in South Africa is also pointing to a more subdued economic growth outlook, with the Absa Purchasing Managers’ Index decreasing significantly during March 2019 as power cuts weighed on economic activity and all sub-indices declined. Subdued domestic demand and weak export performance amid slower global growth weighed on most sub-indices (Figure 3).

Global economic growth for 2019 is expected to be lower, driven by a slowdown in growth in advanced economies, trade policy uncertainty and concerns about China’s economic outlook. This will have a negative impact on South Africa’s economic growth prospects in the near term. While domestic economic growth is expected to recover somewhat over the medium term, averaging 2.0% in 2021, idiosyncratic factors that include domestic electricity supply constraints and continued policy uncertainty could exacerbate downbeat domestic conditions.

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4 IMF, World Economic Outlook, April 2019.
5 World Bank, Africa Pulse, April 2019.
Financial markets

Positive global market sentiment in recent months was driven by expectations of continued accommodative monetary policy from the US and other advanced economy central banks.

Since the previous edition of the FSR, global risk sentiment has improved, with risky assets benefitting from the surprise signalling of less restrictive monetary policy by the Fed and some other major central banks (such as the European Central Bank and Bank of Japan), against a backdrop of slowing global economic growth (Figure 4). The yield on the two-year US Treasury bond, most sensitive to changes in Fed policy, declined by 60 basis points to 2.26%, below the mid-point of the Fed’s target range. The US dollar’s trade weighted index (TWI) traded sideways despite market expectations for interest rates changing to cuts from expectations of a hike. The USD TWI benefited from interest rate and growth differentials among the Group of Ten countries that favoured the USD.

Volatility indicators retreated during the review period, with the MOVE Index (measuring advanced markets bond volatility), and the VIX (a proxy for advanced markets equity volatility) trading below their 100-day moving averages. Further, the global financial stress index (GFSI) declined below zero, indicating less financial market stress than normal, and possibly driven by lower hedging activity (Figure 5).

Emerging markets with strong fundamentals have benefited from the positive sentiment in global markets, as reflected in narrower credit default swap (CDS) spreads (Figure 6). Some emerging markets (including South Africa), remain vulnerable to idiosyncratic risks.

Idiosyncratic developments limited domestic asset price gains.

Domestic financial asset prices initially increased in line with the general emerging market trend; however, gains were limited by idiosyncratic factors. During the period under review, the exchange rate of the rand, domestic bonds and equities recorded strong performances in line with the general emerging market trend and, after Moody’s Investor Services (Moody’s) refrained from issuing a credit rating review on South Africa (Figure 7). However, the rand reversed some of its 2018 gains on heightened concerns about government’s contingent liabilities and the impact of electricity supply constraints on the country’s growth and sovereign credit rating. South Africa’s fiscal position weakened further, owing to tax revenue underperformance, which necessitated increased borrowing, and funding pressures from Eskom and other financially distressed state-owned companies, leading to a higher public sector borrowing requirement. This could increase the risk of a sovereign credit rating downgrade to sub-investment grade by Moody’s.7

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7 On 29 March 2019, Moody’s was scheduled to make an announcement on South Africa’s credit rating, but made a decision not to update the country’s rating. The implication is that the last committee decision, which confirmed South Africa’s ‘Baa3/Stable’ ratings on 23 March 2018, is still valid and relevant. Also see Moody’s research announcement published on 15 May 2019.
A downgrade by Moody’s to sub-investment grade (local currency) would result in South Africa’s exclusion from FTSE World Government Bond Index (WGBI) and forced sales of domestic government bonds from those investors whose mandates require them to track the index or prevent them from owning sub-investment grade instruments. The actual net portfolio outflows following a sovereign credit downgrade for countries like Russia, Brazil or Turkey have always been less than estimated. This is because a large portion of selling tends to occur prior to the actual downgrade to sub-investment grade, and investors with sub-investment grade mandates tend to purchase these securities, helping to offset some of the outflows.

Fitch Ratings and Standard & Poor’s (S&P) Global Ratings downgraded South Africa’s sovereign credit rating to sub-investment grade in April 2017 and November 2017 respectively, resulting in South Africa exiting both the JPM GBI-EM Global Diversified index and the Barclays Global Aggregate Index. This triggered some forced selling of domestic bonds, which according to market estimates, was between R50 billion and R55 billion. According to an IMF assessment8, as at March 2018, remaining investment grade sensitive investors appeared to be only those tracking the WGBI. Overall, the IMF estimated that while in 2016 about 20% of local currency government debt was held by IG-sensitive investors, this share has now fallen to around 2%. Therefore, should a sovereign downgrade by Moody’s occur, it could prompt forced outflows of about US$1.5 billion or 0.5% of GDP. As some outflows have already occurred, this estimate is below the IMF’s 2016 estimate of about 2.5% of GDP. The IMF assessed only the R186 and R2023 holdings by non-residents (constituting about 85% of total holdings), hence, outflows could be marginally higher if total investment is taken into consideration.

There are a few mitigating factors that could see South Africa’s financial markets being insulated from a WGBI exit (see Box 1).

South Africa’s equity market valuations continue to trend downwards despite an uneven recovery in some sectors.

Following the global equity market correction during the latter part of 2018, equity valuations in a number of advanced and emerging markets reset towards relatively cheap levels by historical standards. Similarly, in South Africa, equities have continued on a downward trend in valuations since the peak reached in March 2016. Different variations of the price-earnings (PE) multiple for the JSE Limited (JSE) Top 40 index declined below their respective long-term averages before rising modestly during the first quarter of 2019 (Figure 8). This has resulted in a lower premium at which South African shares trade relative to emerging economies, as shares in these markets have seen a more modest adjustment in valuations over the same period. The estimate of the equity risk premium, which measures compensation for taking on equity risk over relatively safe bonds, has also been increasing.

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8 IMF Country Report No. 18/247, South Africa: Selected Issues, July, 2018
In the event of a Moody's sovereign credit rating downgrade and a subsequent exit from the WGBI, mitigating factors could limit losses for South Africa. The following mitigating factors could see South Africa's financial markets being insulated from a WGBI exit: (i) at present, South Africa has attractive 10-year bond yields, implying continued allocation by active funds that are able to take on non-investment grade exposure. There are also buying opportunities for the domestic pension and insurance industry, which has historically been underweight South African government bonds; and (ii) post-quantitative easing portfolio investments in South Africa appear to have been driven mostly by institutional investors, while retail-oriented funds sold off aggressively in the aftermath of the 2013 taper tantrum. The SARB analysis of historical portfolio flows indicates that institutional investors tend to exhibit more stable and less momentum-driven behaviour given their medium to long-term strategies, resulting in less procyclicality in the behaviour of portfolio flows.

Non-resident holdings of domestic bonds declined to 37.7%, from a peak of 42.8% in March 2018. The decline was largely due to some forced selling of domestic bonds after South Africa exited both the JPMorgan Global Bond Index (GBI)-EM and the Barclays Global Aggregate, as well as unwinding relating to the tightening of global liquidity conditions and emerging markets sell-off triggered by the Turkish and Argentinian turmoil in 2018. For the year to date, non-residents have continued to sell domestic bonds and equities, highlighting increased concerns about domestic challenges. South Africa has underperformed its emerging market peers who have mostly seen portfolio inflows since the end of 2018 (Figure 1A).

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1 As at December 2018, National Treasury estimates.
2 Fitch Ratings and S&P Global Ratings downgrading of South Africa's sovereign credit rating to sub-investment grade in April 2017 and November 2017, respectively, resulted in the country's exit from the JPMorgan GBI-EM and the Barclays Global Aggregate and forced sales of domestic government bonds.
Although the global sell-off in equities at the end of 2018 resulted in South African equities posting losses for the year, the JSE All-share Index (Alsi) has generally seen a steady recovery for the year to date. While the Alsi has increased by 12.3% for the year to date,
9 retailers and construction shares have been sold off considerably (Figure 9). The construction and materials index currently trades near historic lows, as the industry struggles with weak infrastructure demand from both the private and the public sectors. General retailers have also underperformed the benchmark index, owing to disappointing retail sales, expectations of low profits and constrained household spending. Overall, South Africa's equities are not overvalued in relative terms and financial stability risks appear to be well contained.

Despite the overall positive sentiment towards risky assets, risks remain for the global financial system. US economic growth and inflation could surprise on the upside, convincing the Fed officials to continue with both interest rate and balance sheet normalisation. This would likely result in higher US bond yields, a stronger US dollar and a renewed tightening in financial conditions. Trade tension between the US and China could re-escalate and possibly spread to European countries. The current global economic slowdown could prove deeper and more protracted than the market anticipates. These developments would have negative implications for the performance of emerging market assets, particularly those emerging markets with elevated idiosyncratic risks, including South Africa.

**Financial institutions**

**Banking sector**

*The banking sector’s impaired advances have continued to trend upwards since January 2018 due to a change to expected credit loss accounting as well as increasing credit risk.*

The banking sector’s impaired advances have continued to increase since January 2018, following the implementation of the new expected credit-loss accounting standard (IFRS 9), as reported previously. The ratio of impaired advances to on-balance-sheet loans and advances continued to increase from 3.58% in August 2018 to 3.85% in January 2019, having increased from 2.79% in October 2017 (Figure 10). The steady increase in impaired advances is reflective of the implementation of IFRS 9 as well as increasing risk in the sector’s credit portfolios. In order to get a clearer understanding of the rise in impaired advances, other measures of credit risk are analysed in this section of the FSR.

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9 23 April 2019

10 Impaired advances are advances in respect of which banks have raised a specific impairment and includes any advance or restructured credit exposures subject to amended terms, conditions or concessions that are not formalised in writing.

11 See editions 1 and 2 of 2018 FSR.
There has been an increase in credit risk in the banking sector, with the highest default ratios reported in the unsecured lending, revolving credit facilities, and vehicle and asset finance categories.

Alternative indicators of credit risk are the 90 days overdue ratio and default ratios. The 90 days overdue ratio for the sector has increased by 48 basis points from a trough of 1.94% in November 2017 to 2.42% in January 2019 (Figure 11). A similar trend is seen in default ratios, with the total default ratio increasing from 2.49% in September 2017 to 3.03% in January 2019. Both retail and corporate default ratios show an upward trend during this period. Of the R26.48 billion (21%) increase in total default exposures since September 2017, R16.23 billion is related to retail exposures (mainly in residential mortgages, unsecured lending and vehicle and asset finance portfolios) and almost R10 billion is related to corporate exposures (both corporate and SME corporate categories increased).

The increase in the default ratios suggests that there is increasing credit risk in the banking sector’s loan portfolios among corporate and retail clients – with the highest category default ratios in January 2019 being reported in unsecured lending (13.12%), revolving credit facilities (excluding credit cards) (6.65%) and vehicle and asset finance (6.12%). Although the retail default ratios are higher than the corporate default ratios, the average default size per corporate counterparty is significantly larger than that of the retail counterparties. For example, the average defaulted exposure per counterparty for the total corporate category more than doubled from R2 million in September 2017 to R4.1 million in January 2019. The average retail default exposure per counterparty increased by 12.9% from R18 000 in September 2017 to R20 000 in January 2019, with none of the retail subcategories doubling over the period.

The sectors that showed the highest growth in default ratios since September 2017 were the construction, manufacturing, wholesale and retail trade as well as private household sectors (Figure 12). As of December 2018, the private household sector’s defaulted exposures constituted the largest proportion of total defaulted exposures (almost 73%) with wholesale and retail trade (5%), real estate (5%) and manufacturing sector defaults (4%) contributing significantly.

The credit rating of the sector’s on-balance-sheet loan portfolios has also deteriorated since December 2015 (Table 2). In December 2015, more than 83% of the on-balance-sheet loans were rated investment grade or higher. In December 2018, just over 35% of the on-balance-sheet loans held the same credit rating. There was a significant ratings migration of the on-balance-sheet loans from investment

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12 For the purposes of the analysis, the 90 days overdue ratio is defined as all exposures overdue for more than 90 days as a percentage of on-balance-sheet exposures. Regulatory data is used for the analysis.

13 Defaulted exposures are reported by six banks that are authorised to use the internal ratings-based (IRB) approach to calculate their minimum regulatory capital for credit risk. For the purpose of the analysis, the default ratio is defined as the ratio of defaulted exposure as a percentage of total exposure at default. Regulatory data is used for the analysis.
grade to sub-investment grade, when 30% of the on-balance-sheet loans were downgraded between December 2016 and December 2017, and a further 19% was downgraded between December 2017 and December 2018.

Table 2 Percentage change in credit rating composition of on-balance-sheet loans*

<table>
<thead>
<tr>
<th></th>
<th>Dec-15</th>
<th>Dec-16</th>
<th>Dec-17</th>
<th>Dec-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA to AA-</td>
<td>0.58%</td>
<td>-0.07%</td>
<td>0.36%</td>
<td>-1.64%</td>
</tr>
<tr>
<td>A+ to A-</td>
<td>0.02%</td>
<td>-1.99%</td>
<td>0.03%</td>
<td>0.22%</td>
</tr>
<tr>
<td>BBB+ to BBB-</td>
<td>-0.57%</td>
<td>4.68%</td>
<td>-29.90%</td>
<td>-18.93%</td>
</tr>
<tr>
<td>BB+ to B-</td>
<td>-0.22%</td>
<td>-2.77%</td>
<td>28.94%</td>
<td>20.05%</td>
</tr>
<tr>
<td>Below B-</td>
<td>-0.16%</td>
<td>0.06%</td>
<td>-0.18%</td>
<td>0.06%</td>
</tr>
<tr>
<td>Unrated</td>
<td>0.35%</td>
<td>0.21%</td>
<td>0.75%</td>
<td>0.11%</td>
</tr>
<tr>
<td>In default</td>
<td>0.00%</td>
<td>-0.13%</td>
<td>0.00%</td>
<td>0.14%</td>
</tr>
</tbody>
</table>

*The table was calculated by, firstly, calculating the credit ratings composition of the total loan book for each period, and then, subtracting each period from the previous period to show the annual movement between ratings bands.

Most of the sector’s on-balance-sheet loans are to counterparties domiciled in South Africa (approximately 93% in December 2018) and to the rest of Africa (approximately 2.57% as of December 2018). Default ratios for South African counterparties increased from 3.14% in September 2017 to 3.65% in December 2018, whereas default ratios for the rest of Africa declined from 1.27% to 0.93% over the same period.

The increase in impaired advances for the sector appears to be due to a combination of both the implementation of the new expected credit loss accounting standard, IFRS 9, as well as a deterioration in the credit quality of selected corporate and retail loan categories. In a low economic growth environment, credit risk is exacerbated by increasing financial stress in corporates and SMEs, as well as households affected by both job losses and/or deteriorating disposable income. The resilience of the sector to these risks generally depends on the extent of its provisioning and collateral held, as well as the size of the capital buffers available to absorb losses.

The profitability of smaller banks has declined since mid-2018.

The return on equity (ROE) and return on assets (ROA) for the sector is usually a reflection of the trend movement in the ROE and ROA for the five largest banks. The profitability of the smaller banks (i.e. banks other than the five largest in the sector) is not always reflective in the trend of the sector. During periods of economic stress, the profitability of the largest banks is more resilient given, their diversified income streams. Smaller banks can be more vulnerable to economic stress as a result of their business models, for example, mono-line banking models that offer limited product types to one sector or to limited sectors. Since May 2018, the ROE and ROA of smaller banks has been declining (Figure 13). In contrast, the
ROE and ROA of the five largest banks has remained largely unchanged over the same period.

Smaller banks’ profitability declined by 12% year on year between May 2018 and January 2019. The decline in profitability reported by the smaller banks has been due to a 0.1% reduction in non-interest income (due to foreign exchange and debt securities trading losses, as well as accounting for fair value losses), a 12% increase in credit losses and a 9% increase in operating expenses (mainly due to increased fees and insurance, as well as office equipment and consumables expense).

A number of large banks in the sector have implemented changes to their organisational structures.

There is a high degree of concentration in the banking sector as well as between financial intermediaries in South Africa.14 As a result, significant changes to one or more participants that contribute to this high degree of concentration and/or interconnectedness could have implications for the whole system (see Box 2 for the methodology used by South Africa to determine which banks are systemically important). There are currently two major banking groups that have announced or are undergoing significant changes to their organisational structures.15

At present, and based on available information, there is no reasonable expectation for adverse effects on the financial system or economic activity to occur as a result of these changes.

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15 In March 2016, Barclays Plc announced its intention to sell down its interest in Barclays Africa Group Limited (subsequently renamed Absa Group Limited) and, during September 2018, Investec Limited announced its intention to demerge the Investec Asset Management business. Absa Group Limited expects to complete operational separation by 2020, including rebranding of its rest-of-Africa subsidiaries and transferring off the services provided by Barclays Plc.
Box 2: A methodology to determine which banks are systemically important within the South African context

In the September 2013 Financial Stability Review (FSR), an overview of the South African methodology for identifying domestic systemically important banks was published. Subsequent to the publication, the methodology was enhanced and the FSR Act was signed into law, providing the SARB with additional powers and responsibilities for designating institutions as systemically important financial institutions (SIFIs).

In terms of section 29 of the FSR Act, the Governor of the SARB may, by written notice to a financial institution, designate an institution as a SIFI after giving notice, with a justification thereof, to the Financial Stability Oversight Committee (FSOC). On the designation of a financial institution as a SIFI, the financial institution would be invited to make submissions on the matter, within a reasonable time frame. The Governor has to consider any submissions by the financial institution and either confirm or abandon the proposed designation. A methodology was accordingly developed to assist the Governor in fulfilling these requirements on a consistent basis, especially due to the potential impact that the designation could have on banks.

The South African approach to designate systemic importance is broadly based on the Basel Committee on Banking Supervision’s (BCBS) approach and utilises similar indicators, but has been enhanced for domestic use by adding indicators and criteria that better reflect South African conditions. Table 1A below lists the indicators (and the weightings placed on each indicator) that are used to identify potential systemically important banks within the South African context. Each indicator has various sub-indicators that are used to calculate the relative systemic importance of each bank.

### Table 1A Indicators and weightings

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weighting (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>40</td>
</tr>
<tr>
<td>Interconnectedness and substitutability</td>
<td>40</td>
</tr>
<tr>
<td>Global activity</td>
<td>10</td>
</tr>
<tr>
<td>Complexity</td>
<td>10</td>
</tr>
</tbody>
</table>

**Size (weighting: 0.4)**

The high weighting given to this indicator is due to the high level of concentration in the South African banking sector. The failure of a large financial institution is more likely to have an adverse effect on the country’s economy, financial markets and confidence. Furthermore, it would be more difficult to speedily replace its service offerings and there would be a wider potential impact on the bank’s clients, customers and employees.

**Interconnectedness and substitutability (weighting: 0.4)**

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. Interconnectedness is measured through a bank’s exposure to other financial institutions and through its participation in financial markets.

The substitutability of a financial institution, together with the products and services that it provides, is another factor that could 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.

**Global activity (weighting: 0.1)**

The international impact of a bank’s failure and the complexity of resolving it varies in line with its share in the banking sector’s cross-jurisdictional assets and liabilities. Accordingly, the higher a bank’s share in the cross-jurisdictional assets and liabilities, the greater the potential spillover effects. It also becomes more difficult to coordinate the resolution of a bank if it has a high level of global activity.

**Complexity (weighting: 0.1)**

The systemic impact of a bank’s failure is influenced by the complexity of its business model, organisational and group structure, as well as the operating model. The greater a financial institution’s complexity, the more difficult it becomes to resolve the failure, and therefore the disruption to the financial sector could be more severe. In addition, the more complex a bank’s operations, the more difficult it becomes to assess its contribution to systemic risk.

**Governor’s judgement**

There is no single quantitative methodology that will be able to capture all potential risks. Institutional risks could be more systemic than indicated by the methodology. Regulators often have qualitative information available that cannot be quantified in a methodology. Therefore, there should be room for judgement to be applied by the 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 own discretion when making the determination.
Non-bank financial intermediation in South Africa

In South Africa, there has been a gradual increase in the share of financial assets held by other financial intermediaries since the global financial crisis, in line with global trends.

In line with global trends, the share of financial assets held by South African banks has decreased since the 2008 global financial crisis (Figure 14), but has remained relatively stable at around 30% since 2015 (see Box 3 for an update on the Financial Stability Board’s (FSB) annual non-bank financial intermediation monitoring exercise). Conversely, the share of financial assets held by other financial intermediaries (OFIs) has increased consistently since the 2008 global financial crisis and amounted to 21% in December 2018. Pension funds and insurance companies hold a relatively larger share of total financial assets, with a combined share of financial assets amounting to 31%.

The significant increase in the share of financial assets held by OFIs has mainly been driven by the growth in multi-asset funds over time. The increased popularity in these funds is attributed to changes in regulatory requirements. The Financial Advisory and Intermediary Services Act 37 of 2002 (FAIS), which came into effect in 2004, directed diversification from financial advisors to investment managers given the capital gains tax benefits. Additionally, the introduction of the compliance of retirement annuities with Regulation 28 of the Pension Funds Act 24 of 1956 (Pension Funds Act) in 2011 made multi-asset funds the preferred vehicle given that the majority are Regulation 28 compliant.

The narrow measure of non-bank financial intermediation (NBFI) includes non-bank financial entity types that are involved in credit intermediation activities, that may pose bank-like financial stability risks, based on the FSB’s methodology and classification guidance. Similar to the global narrow measure, South Africa’s narrow measure made up the largest portion (83%) of the NBFI in the final quarter of 2018. Figure 15 illustrates the composition and growth of the narrow measure in South Africa over time.
Box 3: Update on the Financial Stability Board’s annual non-bank financial intermediation monitoring exercise

To assess global trends and risks in non-bank financial intermediation, the Financial Stability Board (FSB) has been conducting an annual monitoring exercise since 2011. With the 2018 Global Monitoring Report, the FSB moved away from the term ‘shadow banking’ and adopted the term ‘non-bank financial intermediation’ (NBFI), to emphasise the forward-looking aspect of the FSB’s work by enhancing the resilience of NBFI and clarifying the use of the technical terms. The change in terminology does not affect the substance or coverage of the agreed monitoring framework and policy recommendations, which aims to address bank-like financial stability risks arising from NBFI.

The 2018 report presents the results of the FSB’s eighth annual monitoring exercise. It covers data up to the end of 2017, from 29 jurisdictions, which together represent over 80% of global GDP. As in previous years, this report compares the size and trends of financial sectors in aggregate and across jurisdictions based primarily on sectoral balance-sheet data.

In the 2018 exercise, the FSB found that banks continued to hold the largest share of financial assets globally (Figure 2A), although banks’ share had been declining since 2008. Financial assets held by other financial intermediaries (OFIs) have been increasing at a faster rate than those of banks over the same period. The activity-based narrow measure of NBFI recorded an increase of 8.5% from 2016 to 2017. The largest portion of the narrow measure is made up of collective investment vehicles with features that make them susceptible to runs.

Investment funds and money market funds are the largest OFI sub-sectors that provide credit to banks. In aggregate, banks and OFIs have become marginally more interconnected through credit and funding relationships in 2017.

The FSB continually improves the monitoring exercise by deepening its analysis and learning from the experiences of previous exercises. For the 2018 monitoring exercise, additional data was collected from a number of areas, including on repurchase (repo) assets and liabilities, total liabilities and interconnectedness. Furthermore, for the 2018 monitoring exercise, the rapidly increasing role of online platforms or financial technology-related non-bank entities in extending credit or facilitating credit creation continued to be a common theme across jurisdictions.

In a financial technology (fintech) survey, credit participating jurisdictions identified the following practical challenges when collecting data:

- lack of a clear definition for fintech credit;
- fintech credit activities not included in jurisdictions’ supervisory reporting;
- and
- unreliable market data.

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1 Narrow measure includes non-bank financial entity types that authorities have assessed as being involved in credit intermediation activities that may pose bank-like financial stability risks, based on the FSB’s methodology and classification guidance.
Pension and provident funds

In aggregate terms, the investment allocation of pension funds remained mostly unchanged.

During the third quarter of 2018, the assets of pension and provident funds (including both official and private self-administered funds) grew by an annual rate of 1.8%, down from 10.4% at the end of 2017 (Figure 16). Measured in relation to the size of the domestic economy, the assets of pension funds equalled about 71.6% of GDP.

Official pension funds continued to increase their holdings of fixed-interest securities in 2018. The value of this asset class grew by 1.8% in 2018, rising to R689.3 billion in the fourth quarter of 2018.

Overall, the investment allocation of the pension and provident funds industry (including both official and private self-administered funds) remained broadly unchanged over the past 17 years (Figure 17). Ordinary shares and government bonds accounted for the biggest share (45% and 17%, respectively) in the portfolio investment allocation of pension funds. Given the relatively large size of their bond holdings, pension funds would remain vulnerable should there be further sovereign credit-rating downgrades of South Africa. However, the large exposure to this asset class does not present a financial stability risk as bonds are usually held to maturity. Additionally, since the assets are marked to market, adjustments are also made to the liability side of their balance sheets.

Insurance sector

A selection of indicators commonly used to identify and assess macroprudential risks in insurance was developed by using the definition of systemic risk, as proposed by the FSB. These indicators are (i) insurance penetration; (ii) insurance density; (iii) reinsurance retention rate; and (iv) insurer concentration.

The insurance penetration ratio is not indicating the presence of systemic risk currently.

The insurance penetration indicator highlights the relative importance of the insurance market to the country as a whole, as well as the level of development of the insurance sector in a country. A downward trend in this ratio may indicate a decrease in the uptake of insurance or growth in GDP that is not matched by the growth in insurance. In view of the fact that any change in this ratio could indicate risks in the system, it is necessary to monitor this ratio continually.

Table 3 Insurance penetration ratio

<table>
<thead>
<tr>
<th>Gross written premium (R'millions)</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>497 682</td>
<td>547 794</td>
<td>575 069</td>
<td>593 032</td>
<td>604 492</td>
<td>645 590</td>
</tr>
<tr>
<td>Gross domestic product (R'millions)</td>
<td>3 549 153</td>
<td>3 807 676</td>
<td>4 049 759</td>
<td>4 345 806</td>
<td>4 797 176</td>
<td>5 003 101</td>
</tr>
<tr>
<td>Penetration ratio</td>
<td>14.02%</td>
<td>14.39%</td>
<td>14.20%</td>
<td>13.65%</td>
<td>12.60%</td>
<td>12.90%</td>
</tr>
</tbody>
</table>

While the penetration ratio for the primary insurers in South Africa has decreased over the last five years, there was a

16 A primary insurer is an insurance company which has a direct contractual relationship with the customer (private individual, company, organisation) and which accepts its risks in exchange for an insurance premium.
marginal increase in the penetration ratio in 2018 (Table 3). This increase was largely attributable to the fact that premiums in the insurance industry increased by 7% year on year in 2018, while nominal GDP only increased by 4%. South Africa is still outperforming most regions in the world in terms of insurance penetration, and, at present, there is no evidence of systemic risk in the sector from this indicator.

**The insurance density ratio improved and the reinsurance retention rate increased.**

The insurance density ratio shows the relative importance of the insurance market to the economy. Ratios that are high indicate that should any events arise within the insurance system, they could have a wider impact on the real economy. Downward trends may indicate a fast growing uninsured population. Once again, any change in this ratio could indicate risks in the system and therefore it is necessary to monitor this ratio continually.

The insurance density ratio for the primary insurers in South Africa improved in 2018 (Table 4). The main reason for the improvement is attributable to the 7% growth in premium income for insurers. However, despite its high density ratio, the South African insurance industry still has scope for further growth. Over the long term, economic development could lift millions more South Africans into the middle class, which in turn would boost the density ratio.

![Table 4 Insurance density ratio](image)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (millions)</td>
<td>53.15</td>
<td>54.00</td>
<td>55.20</td>
<td>56.02</td>
<td>56.72</td>
<td>57.73</td>
</tr>
<tr>
<td>Gross written premium (R'millions)</td>
<td>497 682</td>
<td>547 794</td>
<td>575 069</td>
<td>593 032</td>
<td>604 492</td>
<td>645 590</td>
</tr>
<tr>
<td>Density ratio (premium per capita)</td>
<td>R9 363.73</td>
<td>R10 144.33</td>
<td>R10 417.92</td>
<td>R10 586.08</td>
<td>R10 657.48</td>
<td>R11 182.92</td>
</tr>
</tbody>
</table>

The reinsurance retention rate indicator provides information on the share of insurance risk retained by the insurer, measured through premiums. A high ratio shows that relatively little reinsurance and other forms of risk transfer are used in a jurisdiction. In such a case, a key question from a macroprudential perspective is whether or not the industry can withstand a significant downside scenario, such as a catastrophe (see Box 4 on financial stability implications of climate change on the South African insurance sector). The ratio has more significance in the non-life insurance industry in view of the risks being underwritten.

While the retention ratio for the non-life insurance industry increased marginally (Table 5), it is not necessarily indicating a risk to financial stability, at present.

![Table 5 Reinsurance retention: non-life primary insurers](image)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net written premium (R'millions)</td>
<td>67 262</td>
<td>70 748</td>
<td>81 715</td>
<td>82 699</td>
<td>88 572</td>
<td>81 743</td>
</tr>
<tr>
<td>Reinsurance retention rate</td>
<td>71.27%</td>
<td>70.50%</td>
<td>71.74%</td>
<td>70.34%</td>
<td>68.90%</td>
<td>70.56%</td>
</tr>
</tbody>
</table>
Climate related natural disasters and extreme weather events have become more visible and seem to occur with increasing frequency and severity. These physical risks have already had social and economic consequences, which are likely to grow in importance with the extent of climate change. In 2018, the World Economic Forum designated extreme weather events, natural disasters and failure of climate change mitigation and adaptation among the top five global risks in terms of likelihood and impact. There has also been increasing recognition, at international level, that climate change will also affect the financial system. Several initiatives have been put in place to consider these impacts:

i. In 2015, the world’s governments signed the Paris Agreement on Climate Change at the 21st Conference of the Parties of the United Nations Framework Convention on Climate Change.

ii. In 2015, following a request from the Group of Twenty (G20) Finance Ministers, the FSB launched an industry-led Task Force on Climate-related Financial Disclosures (TCFD). The TCFD released its final recommendations in June 2017, setting a coherent framework for the identification, assessment, management and disclosure of climate risks and opportunities across sectors, with specific guidance for application by financial institutions.

iii. In 2016, under its G20 Presidency, China established the Green Finance Study Group (GFSG) to develop options on how to enhance the ability of the financial system to mobilise private capital for green investment.

iv. In 2017, the Network for Greening the Financial System (NGFS) was launched to bring together central banks and supervisors committed to better understand and manage the financial risks and opportunity of climate change.

In South Africa, the National Treasury convened a working group of financial sector regulatory agencies and industry associations, in January 2017, to develop a framework document on sustainable finance. From a financial stability perspective, insurance supervisors have a strategic interest in understanding how climate change will affect the safety and soundness of individual insurers and insurance markets in aggregate.

While South Africa has been a leader in introducing sustainability into the financial system, it is also one of the world’s most energy- and carbon-intensive economies. The Minister of Finance, during the 20 February 2019 Budget Speech, confirmed that the carbon tax would be implemented on 1 June 2019. Government’s aim with the carbon tax is to ensure that businesses and households take into account the price of greenhouse gas emissions in their production, consumption and investment decisions.

The impact of climate change on domestic insurers has been observed as extreme weather patterns have increased the potential for liability claims, costing both insurers and clients more. The fires that ravaged Knysna and the surrounding areas in June 2017, followed by heavy floods that wreaked havoc in Durban in October 2017 and April 2019, highlight insurance exposures in the face of climate change.

More fundamentally, the potential future impact of climate change – which are likely to be significant across the economy and society – should be of interest to insurers, and insurers’ strategic responses are of great importance to supervisors, regulators and other public bodies charged with ensuring the stability of the broader economy. In this regard, links are emerging between the activities of supervisors and the responses and broader objectives of central banks with respect to climate change.

Insurers in South Africa have begun to respond to climate change in a number of ways. For example, some insurers work with provincial and district municipalities to help mitigate on-the-ground insurable risks to ensure sufficient disaster management capabilities in vulnerable areas. Such measures include supplying local fire stations with equipment such as fire hoses and protective gear, improving flood defences and contributing towards better building plan approval processes.

At present, it does not appear that there might be major financial stability risks from climate change on the South African insurance sector; however, developments will be continually monitored.

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1 https://ec.europa.eu/clima/policies/international/negotiations/paris_en
3 http://unepinquiry.org/g20greenfinancerepositoryeng/
4 http://sustainablefinanceinitiative.org.za/
5 UNEP, 2016. Over a quarter of the JSE Limited (JSE) listed equities are categorised as basic materials. This includes mining, minerals and forestry enterprises.
The insurer concentration ratio shows a high level of concentration in the sector indicative of potential systemic risk.

The insurer concentration ratio shows the share of the total insurance market that is concentrated in the top five insurers and is a key measure of concentration and substitutability. If the market share of the top five insurers is relatively high (e.g. above 50%), then from a macroprudential perspective these insurers should be carefully monitored and supervised.

### Table 6  Insurer concentration of the top five life and non-life insurers in South Africa

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top five life insurers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets (R’millions)</td>
<td>1 641 588</td>
<td>1 936 296</td>
<td>1 977 916</td>
<td>2 007 247</td>
<td>2 139 630</td>
<td>2 177 447</td>
</tr>
<tr>
<td>Total assets of life industry (R’millions)</td>
<td>2 135 807</td>
<td>2 431 057</td>
<td>2 660 938</td>
<td>2 715 847</td>
<td>2 914 534</td>
<td>2 993 436</td>
</tr>
<tr>
<td>Concentration in top five life insurers</td>
<td>76.86%</td>
<td>79.65%</td>
<td>74.33%</td>
<td>73.91%</td>
<td>73.41%</td>
<td>72.74%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top five non-life insurers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets (R’millions)</td>
<td>44 326</td>
<td>51 099</td>
<td>50 742</td>
<td>56 571</td>
<td>60 660</td>
<td>65 785</td>
</tr>
<tr>
<td>Total assets of non-life industry (R’millions)</td>
<td>94 372</td>
<td>100 352</td>
<td>113 909</td>
<td>117 577</td>
<td>128 557</td>
<td>115 849</td>
</tr>
<tr>
<td>Concentration in top five non-life insurers</td>
<td>46.97%</td>
<td>50.92%</td>
<td>44.55%</td>
<td>48.11%</td>
<td>47.19%</td>
<td>56.79%</td>
</tr>
</tbody>
</table>

The life insurance industry is very concentrated with a concentration ratio of 72.74% for the top five life insurers, in 2018, and a ratio of 56.79% for the top five non-life insurers in South Africa (Table 6). The fact that the top five non-life insurers form part of conglomerate groups which also include the top five life insurers increases the concentration. Although concentration has been a long term structural characteristic of the South African insurance sector, it remains a concern from a macroprudential perspective and is being monitored on a continuous basis.

The introduction of the Solvency Assessment and Management framework is changing the landscape of insurance regulation in South Africa.

The Solvency Assessment and Management (SAM) framework was implemented in South Africa on 1 July 2018, at the same time as the implementation of the Insurance Act 18 of 2017. SAM is a principles-based regulation, based on the economic balance sheet of an insurer. One of the objectives for implementing SAM is to align the South African insurance industry with international standards (see Box 5 on SAM).

Overall, while there are some areas of concern, the insurance sector in South Africa remains financially sound, with adequate capital, and other than a high level of concentration, no evidence of major systemic risks.
Central to the adoption of Solvency Assessment and Management (SAM) framework is the protection of policyholders. The objectives of SAM include: (i) to align capital requirements with the underlying risks of an insurer; (ii) the development of a proportionate, risk-based approach to supervision with appropriate treatment for small insurers and large cross-border groups; (iii) incentives for insurers to adopt more sophisticated risk-monitoring and risk-management tools; and (iv) contribution towards improving the stability of the financial sector.

SAM is based on three pillars, with Pillar I dealing with capital adequacy; Pillar II dealing with systems and governance; and Pillar III dealing with reporting requirements. However, this Box will only focus on Pillar I – which stipulates the quantitative requirements that insurers must satisfy in order to demonstrate that they have adequate financial resources. Liabilities are sub-divided into technical provisions and other liabilities. The capital requirements are divided into solvency capital requirements (SCR) and minimum capital requirements (MCR). SCR is a target level of capital, and it must be continually maintained. In the event that insurers have insufficient funds to cover SCR or if this is envisaged to occur in the near future, insurers will have to inform the Prudential Authority (PA). MCR establishes a lower band for the required solvency capital, below which policyholders and beneficiaries would be exposed to an unacceptable level of risk if the insurer was allowed to continue its operation.

The SCR is the main regulatory requirement under SAM and reflects the amount of own funds that a company requires to survive a 1-in-200 year-loss event. Own funds are the excess of assets over liabilities and the SCR cover ratio is calculated by own funds over SCR. According to the data (Figure 3A), South African life and non-life insurers maintained adequate SCR cover ratios, with both SCR covers increasing marginally in the fourth quarter of 2018 and remaining above the required ratio of 1.

Figure 3A: Solvency capital requirement cover ratios of life and non-life insurers
Non-financial corporates

Business confidence deteriorated further in the first quarter of 2019, amid declining profit margins.

Business confidence remained weak over the reporting period, falling further in the first quarter of 2019 to 28 index points in the RMB/BER Business Confidence Index (Table 7). The decline in business confidence in the first quarter of 2019 was largely driven by declining profit margins (amid weak domestic demand), electricity supply constraints and load shedding since November 2018. Additionally, business confidence was affected by ongoing concerns about political and policy issues, including concerns over state capture, corruption and land expropriation without compensation (see Box 6 for an update on the South African banking sector’s exposure to mortgages).

Of all the components of the Business Confidence Index, building contractors’ confidence recorded one of the biggest declines, falling to 23 index points in the first quarter of 2019, from 32 index points in the fourth quarter of 2018, amid a deterioration in residential and non-residential activity. The deterioration in building contractor’s confidence can also be explained by rising defaults in the construction sector. The retailers’ confidence index also decreased by 9 index points, recording a decline to 24 index points mainly as a result of the ongoing underperformance in non-durable goods sales.

Wholesale traders and manufacturers’ confidence decreased in the first quarter of 2019 as a result of deteriorating consumer and non-consumer goods sales, as well as declining domestic and export sales volumes respectively. Despite the ongoing deterioration in vehicle sales volumes, new vehicle dealers’ confidence is the only sub-indicator that recorded an improvement, increasing to 26 index points in the first quarter of 2019. Given that low business confidence constrains corporate spending and investment, an ongoing deterioration in confidence would affect real economic developments and eventually weigh on financial stability.

Table 7 Business Confidence Index∗

<table>
<thead>
<tr>
<th>Indices</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>1st qr 2nd qr 3rd qr 4th qr 1st qr</td>
<td></td>
</tr>
<tr>
<td>Business confidence Index</td>
<td>44.0</td>
<td>40.0</td>
</tr>
<tr>
<td>New vehicle dealers’ confidence</td>
<td>49.0</td>
<td>37.0</td>
</tr>
<tr>
<td>Retail traders’ confidence</td>
<td>44.0</td>
<td>37.0</td>
</tr>
<tr>
<td>Wholesale traders’ confidence</td>
<td>53.0</td>
<td>57.0</td>
</tr>
<tr>
<td>Building contractors’ confidence</td>
<td>41.0</td>
<td>37.0</td>
</tr>
<tr>
<td>Manufacturers’ confidence</td>
<td>34.0</td>
<td>33.0</td>
</tr>
</tbody>
</table>

* The Business Confidence Index is measured on a scale of 0 to 100, where 0 indicates an ‘extreme lack of confidence’, 50 ‘neutral’ and 100 ‘extreme confidence’

Source: Bureau of Economic Research, Stellenbosch University
Non-financial corporate profitability deteriorated and continues to trend below its historical average.

While non-financial corporate sector profitability\textsuperscript{17} has shown some improvement since the first quarter of 2018, growing by 1.1\% year on year in the fourth quarter of 2018, it has deteriorated from the 6.1\% recorded in the third quarter of 2018 (Table 8). Growth in non-financial corporate sector profitability has remained weak, below its 18-year average since the fourth quarter of 2008 (Figure 18). The decline in profitability has mostly been due to weak economic growth which has negatively affected gross fixed capital formation.

\textsuperscript{17} Net operating surplus is used as a proxy for non-financial corporate profits.
In line with subdued profitability and the low economic growth environment, growth in non-financial corporate deposits decreased significantly to 2.3% year on year in the fourth quarter of 2018, from 5.0% in the previous quarter (Table 8). Growth in gross fixed capital formation moderated to 2.6% in the fourth quarter of 2018, following a significant contraction in fixed capital outlays. The slowdown in gross fixed capital formation, combined with weak business confidence and low economic growth prospects, could lead to lower economic growth and impede on corporate profitability.

Credit extended to non-financial corporates remained constrained by domestic economic growth and low business confidence. As a result, growth in bank credit granted to corporates slowed to 4.6% in the fourth quarter of 2018, from 7.3% in the third quarter of 2018. While the credit as a percentage of GDP ratio moderated slightly to 63.8% in the fourth quarter of 2018, credit extended to non-financial corporates has grown at a faster pace than economic growth since the fourth quarter of 2017, raising concerns that the sector may be overextending itself in a slow growth environment.

**Non-financial corporate debt rose amid deteriorating economic growth prospects.**

Even though South African non-financial corporate debt levels have generally remained below emerging market levels, they have been rising since 2005. In the fourth quarter of 2018, non-financial corporate debt increased to US$136.14 billion, significantly higher than the US$70.3 billion recorded in the fourth quarter of 2005 (Figure 19). Further, non-financial corporate debt as a percentage of GDP was recorded at 39.2% in the fourth quarter of 2018 compared to 28.7% in the fourth quarter of 2005. Despite faring better than most other emerging markets, rising non-financial corporate debt could be a risk to financial stability as it raises concerns about the debt-service capacity of South African firms – given the ongoing deterioration in profitability and the low domestic and global economic growth outlook. Should there be a significant slowdown in growth, highly leveraged companies could face...
difficulties servicing their debt; this would impact investment, increase the probability of default (for example, the construction sector) and contribute to the slowdown in domestic growth.

The foreign-currency share of non-financial corporate debt has also risen significantly to 41.7% of total non-financial corporate debt in the fourth quarter of 2018 (Figure 20). Of this debt, 68.5% is US dollar denominated, 18.4% is euro denominated and 13.2% is denominated in other foreign currencies. The higher share of foreign denominated non-financial corporate debt exposes the sector to refinancing risk (in the event of higher interest rates in advanced economies), and currency risk (given the high possibility of currency fluctuations). While the refinancing risk for foreign currency-denominated debt may be temporarily limited by more accommodative monetary policy in advanced economies, the sector remains exposed to currency risk. Additionally, although most of the non-financial corporate debt is denominated in local currency (58.3% in the fourth quarter of 2018), refinancing risk can still arise, given that it reflects prevailing economic conditions.18

In aggregate, corporates’ ability to generate cash to service their debt deteriorated although most sectors improved.

The interest coverage ratio (ICR) is an estimation of a firm’s ability to generate enough cash flow to finance its interest expenses on outstanding debt by dividing a firm’s earnings before interest and taxes (EBIT) by its annual interest expenses. According to the IMF, firms classified as ‘weak’ are those with income that covers interest rate expenses by less than two times (i.e. those with an ICR below 2).

The corporate sector’s aggregate ICR (i.e. all industries ICR) declined to 2.4 in the fourth quarter of 2018, from 2.8 in the previous quarter, driven by a significant decline in EBIT for some sectors (Figure 21). This decline indicates that there has been some deterioration in South African corporates’ ability to generate sufficient cash over the past year to service their debt. Despite a deterioration in the aggregated ICR during this period, only some sectors experienced weakness. The electricity, gas and water supply; business services; transport, storage and communications as well as the mining and quarrying sectors recorded ICRs below the benchmark. In particular, the electricity, gas and water sector remains a concern as it recorded an ICR of -1.09% in the fourth quarter of 2018, its worst level recorded since the fourth quarter of 2014.

Non-financial corporate default concerns remain elevated amid rising debt service costs.

The expected default frequency (EDF) of a firm measures the probability that a firm’s future market value could be insufficient to meet its future debt obligations. According to this measure, over 72% of South African non-financial corporates recorded EDFs below 3% as at 2 May 2019 (Figure 22).19 This implies that there is a less than 3% probability that these corporates would

18 These economic conditions include interest rate trends, the amount of liquidity there is in the credit market and economic growth.
19 Of the 176 South African non-financial corporates included in the portfolio, 127 have an EDF of 3% or less.
be unable to honour their debt obligations in the coming year. Furthermore, the distribution of the sector’s EDF has shown some improvement since October 2019 as there are currently less non-financial corporates with higher probabilities of default than reported in the second edition of the 2018 FSR. A total of 24 non-financial corporates recorded EDFs between 10% and 30% in May 2019 (unchanged from 24 in October 2018), while only two non-financial corporates recorded an EDF exceeding 30% (compared to four in October 2018).

However, non-financial corporates recorded an average one-year EDF of 4.3% as at 2 May 2019, higher than the 3.9% recorded at the time of the previous FSR. This implies an unchanged debt rating for domestic non-financial corporates of Caa2 (based on the correlation between implied ratings by S&P and the EDF credit measures), indicating that the credit risk profile for the sector still remains relatively high.

The debt service ratio of non-financial corporates has remained below that of some emerging market peers, but has been on an upward trend since the second quarter of 2015 (Figure 23). While there has been an improvement in the non-financial corporate’s EDF measures, rising debt-service ratios and higher debt levels raise concerns around the indebtedness of the sector in a slowing economic growth environment.

Households

The income, expenditure and debt of the household sector is of particular importance to financial stability as the sector is one of the main clients of the banking sector. A highly indebted household sector could be a cause for concern as households are particularly sensitive to shocks, in the economy, such as sudden increases in prices and interest rates. High levels of debt could decrease households’ ability to service their debt, increasing the probability of defaults and causing a deterioration in banks’ asset quality. This, in turn, could lead to financial stability concerns.

**Household balance sheets have deteriorated amid a worsening financial position.**

Growth in household disposable income decelerated from 5.3% in the third quarter of 2018 to 4.9% in the fourth quarter (Table 9). This was in line with BankservAfrica’s Disposable Salary Index – which indicated that seasonally adjusted take-home pay declined in October and November, showing only a marginal improvement in December. The decline in salary growth was mostly attributed to higher inflation following the successive increases in fuel prices in the second half of 2018. While disposable income has generally increased at a faster rate than inflation since the beginning of 2017, slowing economic growth prospects are expected to weigh on households’ future earnings ability.

Despite the decline in household disposable income growth, consumption expenditure growth accelerated to 3.2% in the fourth quarter of 2018, from 0.6% in the third quarter. Given the concerns about possible vulnerability in the financial position of households, the rise in consumption expenditure may be due to households taking on additional debt and/or reducing (or utilising) their savings for consumption purposes. It is more likely that consumption expenditure was supported by faster growth in household income.
growth in household debt as savings as a percentage of disposable income has been at low and even negative levels historically.

Households’ financial position has worsened – given the contraction in net wealth – by 1.6% in the fourth quarter of 2018, from positive growth of 3.5% in the third quarter (Table 9). The contraction in net wealth is attributed to a sharp decline in the growth of the value of households’ financial assets, which fell from 3.1% in the third quarter of 2018 to 3.3% in the fourth quarter of 2018. The growth in household net wealth has also been weighed down by higher liabilities as indicated by stronger growth in credit extension to households and their higher debt levels.

Table 9 Selected indicators for the household sector

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4th qr</td>
<td>4th qr</td>
<td>4th qr</td>
<td>1st qr</td>
</tr>
<tr>
<td>Disposable income</td>
<td>7.3</td>
<td>7.4</td>
<td>7.6</td>
<td>6.5</td>
</tr>
<tr>
<td>Financial assets</td>
<td>4.4</td>
<td>4.4</td>
<td>12.5</td>
<td>6.8</td>
</tr>
<tr>
<td>Total assets</td>
<td>5.2</td>
<td>4.6</td>
<td>10.0</td>
<td>6.1</td>
</tr>
<tr>
<td>Net wealth</td>
<td>5.3</td>
<td>4.8</td>
<td>11.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Consumption expenditure</td>
<td>1.7</td>
<td>0.9</td>
<td>3.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Consumption expenditure to GDP</td>
<td>59.7</td>
<td>59.7</td>
<td>59.4</td>
<td>60.9</td>
</tr>
<tr>
<td>Capital gearing*</td>
<td>16.7</td>
<td>16.5</td>
<td>15.8</td>
<td>16.2</td>
</tr>
<tr>
<td>Credit extension</td>
<td>4.5</td>
<td>0.7</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Mortgage debt as percentage of household disposable income</td>
<td>37.6</td>
<td>36.0</td>
<td>34.6</td>
<td>34.7</td>
</tr>
<tr>
<td>Savings as a percentage of disposable income</td>
<td>-0.7</td>
<td>-0.3</td>
<td>0.2</td>
<td>-0.3</td>
</tr>
<tr>
<td>Debt as a percentage of disposable income</td>
<td>75.9</td>
<td>73</td>
<td>71.3</td>
<td>71.7</td>
</tr>
<tr>
<td>Debt to GDP</td>
<td>45.0</td>
<td>43.4</td>
<td>42.5</td>
<td>43.6</td>
</tr>
<tr>
<td>Debt-service cost of household debt</td>
<td>9.8</td>
<td>8.1</td>
<td>4.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Debt-service cost as a percentage of disposable income</td>
<td>9.4</td>
<td>9.4</td>
<td>9.1</td>
<td>9.1</td>
</tr>
<tr>
<td>Debt</td>
<td>4.9</td>
<td>3.4</td>
<td>5.1</td>
<td>4.9</td>
</tr>
<tr>
<td>FNB Household Debt-Service Risk Index</td>
<td>5.5</td>
<td>5.1</td>
<td>5.2</td>
<td>5.3</td>
</tr>
</tbody>
</table>

* Household net wealth is defined as total assets of households less total financial liabilities
** Capital gearing refers to household debt as a percentage of total assets of households. Data are preliminary
Sources: SARB and First National Bank

Debt growth accelerated and low income earners remain exposed to higher interest rates.

The growth in credit extended to households has been on an upward trend since the second quarter of 2017, accelerating from 2.9% in the second quarter of 2017 to 5.7% in the fourth quarter of 2018 (Figure 24). The increase in credit extended to households has been mainly due to a rapid rise in the general loans debt category. Furthermore, growth in total household debt rose to 6.9% in the fourth quarter of 2018, from 5.1% in
the third quarter of 2018 (Table 9). Increasing household debt measures amid slowing economic growth prospects and deteriorating household financial positions imply that households have become more vulnerable.

The distribution of credit granted to households remains biased towards high-income consumers (+R15 000 per month). In the third quarter of 2018, consumers with income exceeding R15 000 accounted for 83.2% of the total credit granted, significantly higher than the 16.8% of those earning less than R15 000 (Figure 24). Further, the majority of credit was extended to high-income earners in the form of mortgages and secured loans. While this type of debt makes consumers more vulnerable to interest rate hikes, it carries a lower interest rate and thus places less pressure on household finances, especially during periods of low economic growth. In contrast, low-income earners usually have high-interest bearing debt such as credit facilities and short-term credit. While these forms of credit play an important role in boosting financial inclusion in South Africa, the higher interest rates they carry may exacerbate the financial vulnerability of low-income households.

Household’s debt affordability deteriorated marginally as credit spreads increased.

Despite the acceleration in debt and deceleration in wealth, household debt affordability measures only deteriorated slightly during the fourth quarter of 2018 (Figure 25). Debt to disposable income remained fairly stable, although it increased marginally from 71.8% in the third quarter of 2018 to 72.7% in the fourth quarter of 2018 as disposable income rose at a slower pace than household debt. Despite increasing to 6.6% in the fourth quarter, from 3.9% in the third quarter, the year-on-year growth in the debt-service cost of households has remained below the double digit levels recorded between 2014 and 2016 (Table 9). Debt-service cost to disposable income remains well below the elevated levels during the global financial crisis, although an increasing trend has become noticeable recently. The spread between the average interest rates paid by South African households and the prime rate rose marginally from 12.63% in the third quarter of 2018 to 12.73% in the fourth quarter (Figure 25). Debt financing costs have remained relatively subdued since mid-2016, supported by the introduction of the Affordability Assessment Regulations (under the National Credit Act 34 of 2005) and the relatively stable policy interest rate set by the SARB. However, financial institutions’ willingness to extend loans to households deteriorated – as indicated by the credit application rejection rate that rose to 53.65% in the third quarter from 50.06% in the second quarter of 2018.

In line with low economic growth prospects and indications of possible deteriorating household balance sheets, the First National Bank/Bureau for Economic Research (FNB/BER) Consumer Confidence Index (CCI) declined to 2 index points in the first quarter of 2019, from 7 index points in the fourth quarter of 2018 (Figure 26).

The economic and financial position sub-indices deteriorated as consumers lost confidence in the outlook for the domestic economy and did not expect household finances to improve in the next 12 months.
Overall, the financial position of households has deteriorated as a result of lower disposable income, deteriorating net wealth and higher levels of growth in household debt. While this raises concerns about the ability of households to service their debt, interest rates have remained relatively stable, thereby providing the sector with some relief.

Residential real estate

Housing market trends and developments are important from a financial stability perspective since they serve as indicators of financial system health and confidence in the economy. In South Africa, not only does residential housing make up approximately 22% of households’ total assets, but mortgage advances make up the largest component of banks’ assets, accounting for about 35.5% of total bank loans and advances. House price movements therefore impact on the balance sheets of both households and banks.

House price growth remained negative in real terms in the period under review.

Using available data, annual house price growth has been trending downwards since the second half of 2015 (Figure 27), with a seemingly temporary upswing towards the end of 2017. The moderation in house price growth has been driven by subdued domestic economic conditions and constrained household finances. According to the various house price indices (HPI), nominal house prices increased by 4.5% (Standard Bank HPI), 3.6% (Lightstone HPI) and 4.2% (FNB HPI) in December 2018. Generally, real house price growth has been negative since 2016.

In line with the subdued real estate sector, the FNB/BER Building Confidence Index fell to 25 points in the first quarter of 2019, from 32 index points in the fourth quarter of 2018. The current level of the index indicates that the majority of respondents are dissatisfied with prevailing business conditions. Architects confidence dropped to 26 index points, from 47 in the third quarter of 2018, while the confidence of quantity surveyors fell to its lowest level since 1986. Growth in activity for both architects and quantity surveyors deteriorated sharply, explaining the lower confidence. This implies that work for contractors is set to become even more scarce over the next few months.

Government finances

The state of government finances and the sustainability of government debt in particular remains a risk to the stability of the domestic financial system and is one of the main potential determinants of further sovereign credit rating downgrades. High levels of government debt could negatively impact on international investors’ view of South Africa’s creditworthiness.

Note that all the house price time series data displayed in Figure 27 have drawbacks. The two indices produced by banks only include properties that it extended mortgages for, while the third house price index is subject to a propriety smoothing technique.

The FNB Building Confidence Index measures the business confidence of all the major role players and suppliers involved in the building industry such as architects, quantity surveyors, contractors, subcontractors, retail merchants and manufacturers of building materials. The index is compiled quarterly from the building, manufacturing, retail and wholesale opinion surveys undertaken by the BER at Stellenbosch University. See the FNB/BER Building Confidence Index, Johannesburg: FNB/BER, 17 September 2014.
which could result in refinancing difficulties and possibly trigger wider financial system instability. If public finances are perceived as unsustainable and/or vulnerable to shocks, the risk premium on debt could rise and it could, in turn, lead to higher interest rates, higher debt-service costs and increased rollover risk. Higher public debt stocks could also increase the probability that the prices of other financial assets decrease, thus impacting on the soundness of financial sector balance sheets.22

**Rising domestic government spending and lower revenue collections continue to put pressure on government debt metrics.**

The estimate for South Africa’s government expenditure for 2018/19 has been revised upwards since the *Medium Term Budget Policy Statement (MTBPS)* in October 2018 to R1 665.4 billion in the 2019 Budget Review, while revenue is expected to be lower at R1 455.2 billion. Financially deteriorating SOEs and the rising public sector wage bill has resulted in this upward revision of expenditure, with National Treasury forecasting a fiscal deficit of 4.5% of GDP for the year beginning on 1 April 2019.

Domestic government debt increased during the period under review to R2 790 billion as at 31 March 2019 – R300 billion higher than as at 31 March 2018 (Figure 28). This increase was mainly driven by domestic debt, which accounted for around 90% of gross loan debt. The main reason for the increase in borrowing requirement is lower-than-expected revenue collection. The government debt-to-GDP ratio has also continued on an upward trend during this period, recording a level of 56.7% at the end of the fourth quarter. When comparing the annual general government debt-to-GDP ratio of Brazil, Russia, India, China and South Africa (BRICS countries) (Figure 29), South Africa compares well with India, China and Brazil, but with a rising trajectory.23 National Treasury expects government debt to stabilise at 60.2% of GDP by 2023/24, while the IMF projects a debt-to-GDP ratio of 65.1% by 2023.24 Key interventions in the fiscal consolidation process include reducing the public sector wage bill and establishing an infrastructure fund to improve government’s approach to infrastructure investment.

**Support of SOEs places pressure on government’s expenditure ceiling and could deter fiscal consolidation.**

Government’s financial support for SOEs could place pressure on government’s expenditure ceiling and deter fiscal consolidation. Contingent liabilities25, which consist of guarantees to SOEs, independent power producers and public-private partnerships, are expected to increase from R879.6 billion in 2018/19 to R1.02 trillion by 2020/21 (Figure 30).26


23 Using IMF data.

24 Both these estimates are below the 70% level deemed as sustainable by the IMF for South Africa.

25 Contingent liabilities are defined by National Treasury as financial obligations that will only result in expenditure if a specific event occurs.

Eskom, the largest SOE, accounts for guarantees that make up 55% of the R529.4 billion in guarantees to SOEs. During financial year 2018/19, Eskom utilised an additional R50 billion of its allocated R350 billion in government guarantees, bringing its total use of guarantees to R294.7 billion. In an effort to contain and decrease Eskom’s debt, a restructuring plan for the utility was announced at the State of the Nation Address in February 2019. The restructuring plan consisted of splitting Eskom into three different units under one holding company. The 2019 Budget Review further stated that government would not be take responsibility for any Eskom debt and allocated R23 billion a year for the next three years to financially support Eskom’s restructuring. The National Energy Regulator approved smaller-than-requested tariff increases for Eskom on 7 March 2019, which amounts to allowable revenues of R206.4 billion. In combination with an earlier approved increase of 4.4%, it brings the total increase for 2019 to almost 14%. However, according to Eskom, this increase still falls short of what it needs to be financially stable.

The second largest government guarantee is for independent power producers. In terms of the prevailing framework for power purchase agreements, government provided a guaranteed electricity offtake amounting to R146.9 billion in 2018/19. However, the likelihood of this contingent liability being realised is relatively low. Furthermore, government granted Denel an additional R1 billion guarantee in 2019/20, increasing their total guarantee to R3.4 billion. South African National Roads Agency Limited and South African Airways have guarantees of R30.3 billion and R17.3 billion respectively.

The high level of the South African government’s contingent liabilities and the high probability of significant amount of these contingent liabilities materialising27 as well as Eskom’s current large debt levels pose a threat to public finances and hence South Africa’s sovereign credit rating. Credit rating agencies are closely monitoring the credibility and implementation of Eskom’s turnaround plan to curtail financial losses and support government’s fiscal consolidation efforts.

**Adequacy of nominal reserves**

As high net external financing requirements could make a country vulnerable to possible market volatility, countries strengthen or increase buffers to build resilience in the event of such vulnerability materialising. A significant fall in reserve holdings could result in policy concerns regarding inflation and/or disrupt balance sheets and real economic activity.28 Since the previous edition of the FSR, the official gross gold and foreign exchange reserves29 have decreased marginally to US$49.68 billion in March 2019 from US$50.67 billion in November 2018 due to the increase in foreign exchange swaps. Foreign reserve holdings are important to, among other things, maintain liquidity and investor confidence.

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27 These contingent liabilities can materialise if: (i) Eskom could not afford to buy power as set out in the power-purchase agreements and government has to provide Eskom with money to honour these agreements, or (ii) Eskom terminated such agreements owing to a change in legislation or policy.


29 Official gross reserves include gold reserves, special drawing right (SDR) holdings and foreign exchange reserves, with the last-mentioned including foreign-currency deposits received (FDR).
The Guidotti ratio suggests that sufficient funds are available to service the country’s short-term external debt due within the next year.

The Guidotti ratio (GR) decreased to 1.16 in the fourth quarter of 2018 (from 1.28 in the third quarter of 2018), after recording an increase during the third quarter (Figure 31). The decrease can be attributed to a larger increase in short-term foreign debt than in gross gold and other forex reserves. Nonetheless, the GR still suggests that should foreign-exchange market access be reduced suddenly, sufficient funding would remain available to service the country’s short-term external debt due within the next year.

The augmented Guidotti ratio (AGR), which takes into account the current account (as a proxy for total external financing needs), increased from 0.97 in the third quarter of 2018 to 0.99 in the fourth quarter. This improved level is just below the Guidotti-Greenspan rule level of 1, indicating that there might be a shortfall of 1 percentage points in funding, should an unexpected capital flight situation arise. The larger increase in short-term foreign debt (compared to the increase in gross gold and other forex reserves), as well as the significant narrowing of the current account deficit mainly contributed to the rise in the AGR. It should be noted that the metrics used in this report are merely a subset of a number of analytics tools that could be used to measure the adequacy of foreign exchange reserves.

Update on the financial cycle

The financial cycle provides a broad indication of the change in risks to financial stability, and as such, provides a useful monitoring tool for policymakers. These cycles are generally measured by the co-movement of a broad set of financial variables.30

The financial cycle continues to trend downwards.

As indicated in Figure 32, medium-term cycles in credit31, equity prices and house prices have been extracted and averaged to obtain an estimate of the financial cycle (red line). For purposes of comparison, the downward phases of the business cycle, as calculated by the SARB and published in the Quarterly Bulletin, are shown by the blue shaded areas.

The current downward phase of the financial cycle began in the fourth quarter of 2016 (pink shaded area) and has continued into the fourth quarter of 2018. While all of the sub-cycles are in a downward phase, the asset price cycle (JSE) appears to be flattening out. However, it should be noted that this only implies that the rate of decline in the asset price cycle may have reached its trough.

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Macroprudential policy regulation

Assessing the application of the countercyclical capital buffer for banks

The countercyclical capital buffer (CCyB) framework provides macroprudential supervisors with a tool to change capital requirements for banks in order to protect the financial system from the boom and bust phases of the financial cycle. The Financial Stability Committee (FSC) of the SARB is responsible for setting the CCyB rate, which forms an integral part of the internationally agreed-upon standards for risk-based capital requirements.

**The total credit-to-GDP gap remains below its long-term trend.**

The Basel Committee on Banking Supervision (BCBS) has suggested, in its guidance to national authorities\(^{32}\), that the credit-to-GDP gap be used as a guide for deploying Basel III countercyclical capital buffers. The credit-to-GDP gap is designed to take the macro-financial environment in which banks operate into account, and is the main indicator informing the activation of the CCyB. According to the phase-in arrangements for the minimum requirements of Basel III, banks in South Africa could be required to hold a CCyB. However, the credit-to-GDP gap (Figure 33) remains well below any likely calibration of the lower threshold of the countercyclical buffer add-on for South African banks.

The credit-to-GDP gap has been negative since 2011, and has narrowed from -5.4 percentage points in the third quarter of 2018 to -3.9 percentage points in the fourth quarter of 2018. The total credit extended to the private sector continued to remain below its long-term average.

Credit extension by banks to households has remained relatively subdued. However, the credit-to-GDP gap for credit extended to households narrowed from -4.89 percentage points in the third quarter of 2018 to -3.87 percentage points in the fourth quarter of 2018. The gap for credit extended to corporates also narrowed during this period, from -1.25 percentage points to -0.88 percentage points (Figure 34).

Not all credit gap subcategories were below zero during 2018. The credit gaps for leasing finance and overdrafts remained above zero and increased further during the year. Some of the asset classes (installment sales, credit cards and mortgages) have negative credit-to-GDP gaps. However, the credit-to-GDP gap for mortgages has narrowed to -4.36 percentage points in the fourth quarter of 2018, from -5.08 in the previous quarter (Figure 35). The CCyB should not be anchored mechanistically on only the credit-to-GDP gap, given that no indicator is infallible and that policymaking also requires judgment.

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The Financial Conditions Index (FCI)\(^\text{33}\) is a broad measure which reflects the cost of obtaining finance in the economy, and can be used as another indicator when making CCyB decisions. As can be seen in Figure 36, while total credit extension by banks remains subdued, the FCI suggests that financial conditions remain more favourable, as it stayed below its 10-year historical average.

### Consideration for the activation of the countercyclical capital buffer for banks

According to the arrangements for the minimum requirements of Basel III, the CCyB could be applied to banks from 2016, if required. However, at a recent meeting of the FSC, it was decided, after taking all the relevant information into account, not to activate the CCyB add-on for banks at this stage, and to keep the rate at 0%.

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\(^{33}\) For more details on the construction of the FCI, see Kabundi and Mbelu (2017) on http://www.resbank.co.za/Publications/Detail-Item-View/Pages/Publications.aspx?sarbweb=3b6aa07d-92ab-441f-b7bf-bb7dfb/bedb4&sarblist=21b5222e-7125-4e55-bb65-56fd333337fe&sarbitem=8008
The robustness of the domestic financial infrastructure

Domestic legislative developments as well as some international regulatory developments in the banking sector, insurance sector and financial markets are reviewed in this section, starting with an update on the Cybercrimes Bill, the Conduct of Financial Institutions Bill, the Financial Matters Amendment Bill and imminent changes in the auditing profession. The focus shifts to domestic financial market developments which include the National Payment System Act Review as well as an overview of the recently published Crypto Assets position paper. The section concludes with an overview of international developments that may impact on the domestic financial sector.

Update on the Cybercrimes Bill

The first edition of the 2017 FSR reported on the Cybercrimes and Cyber Security Bill of 2017 (Cyber Bill) which was tabled in Parliament in February 2017. The aim of the Cyber Bill is to safeguard the country against cybercrime, improve the security of the country and consolidate cybercrime laws into a single piece of legislation. The version of the Cyber Bill that was reported on in the 2017 FSR edition was amended before it was presented to the National Assembly in November 2018.

Due to the number of comments received during the public comment period, it was decided that the Cyber Bill should be amended significantly. Comments were received from various stakeholders in the technology, telecommunications and other sectors of the economy. These comments were consolidated and incorporated into the revised Cyber Bill. There were strong views that the Cyber Bill should be separated into two bills, which would address cybercrime and cybersecurity as standalone bills.

The major changes from the previous version of the Cyber Bill include:

- removal of the provisions relating to cybersecurity (a separate bill would address cybersecurity);
- the definition of ‘unlawful’ was revised and aligned with the Protection of Personal Information Act 4 of 2013 (POPI Act);
- the scope of the provision on malicious communications has now been limited to data messages that threaten people with violence; and
- removal of crimes relating to critical infrastructure.

The latest version of the Cyber Bill covers many offences which are related to data, messages, computers and networks. These offences include, among others, hacking, unlawful interception of data, ransomware, cyber forgery and cyber extortion. The Cyber Bill aims to align domestic legislation with international best practice and has included a requirement to cooperate with other jurisdictions in dealing with cross-border cybercrime.

In a recently released report by Trend Micro Research titled “Mapping the future, dealing with pervasive and persistent threats”, it is predicted that the biggest trends in technology and security will be advancements in artificial intelligence and machine learning. Further to this, there will be an increase in the uptake of cyber insurance and an uptick in cloud-related software vulnerabilities. All of this will ultimately lead to intense regulatory oversight as governments and regulators try to find ways to mitigate the impact of cybersecurity and cybercrime developments.

Cybercrime and deficient cybersecurity pose financial stability risks, as the impact of a cyberattack on critical financial market infrastructures/institutions could result in a disruption in the provision of financial services. It is expected that the Cyber Bill will be signed into law during 2019 and this will greatly enhance regulatory authorities’ ability to deal with increases in cybercrime.

Update on the Conduct of Financial Institutions Bill

The 2016 and 2017 editions of the FSR provided a brief introduction to the Conduct of Financial Institutions Bill (CoFI Bill). The CoFI Bill aims to streamline the legal framework for the regulation of the conduct of financial institutions and give effect to the market conduct policy, including the Treating Customers Fairly (TCF) principles. On 18 December 2018, National Treasury published the CoFI Bill together with an explanatory policy paper and invited comments on it. The South African financial sector has some incidents of poor market conduct, which have led to poor financial customer outcomes. Some of these practices include high and opaque fee structures, weak disclosure and transparency of highly complex products as well as inappropriate financial products and services, especially for the most vulnerable consumers.

The CoFI Bill establishes the regulatory framework for supervision of the conduct of financial institutions through the Financial Sector Conduct Authority (FSCA). This, in turn, enables the FSCA to enforce requirements in a manner that is proportionate to the nature, size, scale and complexity of the risks associated with the type of activity or financial institution. The CoFI Bill introduces a single market conduct license from the FSCA, which could have different authorisation categories, depending on the financial activities carried out by the financial institution.

Further to this, the CoFI Bill requires financial institutions to have in place clear processes and procedures regarding the design and provision of financial products as well as processes for the provision of financial services. The aim is to ensure that products and services take into account the identified needs of customers and that customers are targeted accordingly.

34 The report can be accessed on https://www.trendmicro.com/vinfo/us/security/research-and-analysis/predictions/2019
35 For more details on the possible financial stability impact of cybercrime and lack of cybersecurity see the risk assessment matrix on page 3
Financial institutions are further tasked to ensure that their distribution models are appropriate to safeguard the delivery of appropriate products and services and, where applicable, provide access to suitable advice. The CoFI Bill envisages distribution models that enhance standards of professionalism, encourage fair competition, and support sustainable business models for financial institutions.

In order to eradicate any potential market regulatory weaknesses, the CoFI Bill establishes a regulatory basis for institutions not regulated in terms of another Act. This is to ensure that non-prudentially regulated entities comply with suitable requirements to safeguard funds and operational capital. The CoFI Bill will operate concurrently with the FSR Act, the Insurance Act 18 of 2017 (Insurance Act) and the Pension Funds Act and will enhance the coordination and cooperation of regulatory authorities. Legislative processes are still on-going and it is expected that the CoFI Bill will come into effect by late 2020.

**Financial Matters Amendment Bill**

On 1 February 2019, the Minister of Finance released the Financial Matters Amendment Bill37 – which proposes amendments to the Insolvency Act 24 of 1936 (Insolvency Act), the Military Pension Act 84 of 1976, the Banks Act 94 of 1990 (Banks Act) and the Government Employees Pension Law 21 of 1996. This update will only focus on the Acts that may have financial stability implications, namely the Insolvency Act and the Banks Act.

The Insolvency Act has been amended to provide for the process that needs to be followed when a creditor realises his/her security and to provide powers to the Master of the High Court to deal with disputes regarding preference by trustees. The amendment may have a positive impact on the certainty of contracts in that it will protect financial obligations under derivative contracts from automatic incorporation into an insolvent estate. This will provide international banking partners of domestic banks with certainty regarding contractual arrangements in the event of insolvency; and provide a guarantee that collateral would be available in the event of insolvency.

The Banks Act has been amended to ensure that certain SOEs are classified as public companies as per the Companies Act 71 of 2008. This will allow those SOEs to apply for authorisation to be a bank. The amendment proposes that only qualifying SOEs that are financially sound may apply for authorisation to establish a bank. Approval of the Minister of Finance, with concurrence of the Minister responsible for the SOEs, should be sought to apply for authorisation to establish a bank. The amendment to the Banks Act may have financial stability implications should a state-owned bank fail as this may have an impact not only to government guarantees but on other domestic banks that will have exposures to the state-owned bank.


The Financial Matters Amendment Bill was assented to by the President on 23 May 2019.

**Changes in the auditing profession**

The 2017 World Economic Forum Global Competitiveness Report38 rated South Africa number one out of 138 countries in the Auditing and Reporting Standards. However, in the 2018 report, South Africa dropped to number 55 out of 140 countries, for the same category. This could be partly attributed to a number of events that transpired in the auditing sector in recent months. South African regulatory authorities have taken cognisance of the negative impact on the sector and as such have planned a number of changes in the auditing profession.

The first of these changes relates to audit firm rotation. The introduction of mandatory audit firm rotation (MAFR) by the IRBA is proposed to take effect from 1 April 2023. The proposed MAFR, despite being met with some opposition, aims to strengthen auditor independence and the quality of audits. The pushback on MAFR is in relation to the unintended consequences of adopting such a change and the impact on financial institutions. Part of the opposition stems from the fact that South Africa's auditing sector is concentrated, with only four auditing firms dominating the sector.

The MAFR was gazetted in June 2017, and prescribes that:

- audit firms may not serve as auditors of a public interest entity for more than 10 consecutive financial years;
- an auditing firm may only be reappointed to the same entity after a cooling-off period of five years;
- an audit cannot be rotated to an associated audit firm; and
- at the point when the entity is first classified as a public interest entity, the years that a firm has been serving that public interest entity will also be taken into consideration in the 10-year calculation.

Since the issuing of MAFR there has been some early adopters, and the IRBA reported that a number of auditing firm rotations39 have taken place; some were due to the MAFR and some were due to termination of auditor contracts. The PA already prescribes that larger banks have joint auditors, a requirement which is aimed at safeguarding the banking sector and enhancing audit quality. The size and complexity of these banks’ operations both in South Africa and outside the Republic requires auditors with sufficient skills and resources. Further to this, section 90(2) of the Companies Act 71 of 2008 (Companies Act) prohibits firms that have provided non-audit services in the preceding five years from being appointed as an auditor. The prescription in the Companies Act further exacerbates the situation, as there are a limited number of audit firms with the expertise to audit and provide non-audit services to the large banks.

38 These reports are available on [https://www.weforum.org/reports?page=2](https://www.weforum.org/reports?page=2).

Overview of the current national payment system legislative and regulatory architecture and framework

The review of the NPS Act seeks to address some of the issues identified, including the review of the self-regulatory organisation model and specifically in the national payment system (NPS), the recognition of the Payment System Management Body (PSMB) and adopting activity-based regulation aimed at enhancing access of banks and non-banks in the NPS. Some of the key issues/proposals address emerging payment methods, technologies, services, functionalities, providers and systems; increased focus by regulatory authorities on payment services and system regulation supervision; and, payment system oversight and alignment with the Twin Peaks regulatory model.

In addition to the matters outlined above, recommendations41 were made in the policy paper for the review of the NPS Act. These recommendations include:

- adoption of overarching principles;
- adoption of international and domestic financial sector regulatory standards;
- inclusion of public policy objectives; and
- clarifying the role of the SARB as payments regulator, supervisor and overseer.

Consequential amendments to the following legislation are envisaged:

- The FSR Act should be amended to, inter alia:
  i. align the definition of payment services to clarify the role and scope of the FSCA within the NPS;
  ii. enable the winding up (resolution) of systemically important payment systems (SIPS) by the Resolution Authority;
  iii. enable the issuance of financial stability standards by the SARB;
  iv. extend the application of the Tribunal and Ombud systems to the NPS;
  v. extend the power of the Governor to designate SIPS and prominent payment systems in the NPS; and
  vi. cater for any other amendment required that may be established during the process of reviewing the NPS Act.

Regulatory developments affecting the domestic financial markets

Review of the National Payment System Act 78 of 1998

Introduction

In terms of section 10(1)(c) of the South African Reserve Bank Act 90 of 1989 (SARB Act)40, the SARB is required to perform functions, implement rules and procedures and, in general, take steps as may be necessary to establish, conduct, monitor, regulate and supervise payment, clearing or settlement systems.

There are internal and external factors that may affect optimal operations of the payment system, and these have prompted the SARB together with National Treasury to review the National Payment System Act 78 of 1998 (NPS Act). These factors include those emanating from the 2007/08 financial crisis as well as the emergence of new payment methods, technologies, services, risks and participants. Other related developments include the overhaul of the regulatory architecture of the South African financial system through the adoption of the Twin Peaks regulatory model.

40 The South African Reserve Bank Act is available on http://www.resbank.co.za/AboutUs/Legislation/Documents/SARB%20Act/1%20%20South%20African%20Reserve%20Bank%20Act%20%20No%2090%20of%201989.pdf

41 A public workshop was held on 14 February 2019, followed by focused sessions with non-banks, banks, clearing and settlement operators, and critical service providers during the week of 18 February 2019. Currently, the National Treasury is collating the comments. Thereafter, the policy paper will be updated and the drafting process will commence.
• The Banks Act should be amended to exclude payment services regulated under the NPS Act from the definition of “the business of a bank”.

• In terms of section 10 of the FSR Act, the Consumer Protection Act 68 of 2008 (CPA) does not apply to a function, act, transaction, financial product or financial service that is subject to the NPS Act. In this regard, attention must be given to the following provisions in the CPA:
  i. dealing with fraudulent schemes and pyramid schemes (sections 42 and 43) insofar as these relate to financial crime; and
  ii. dealing with prepaid cards or other devices, insofar as these relate to payment services (sections 63 and 65). Consideration must be given to whether or not these should be regulated under the NPS Act. The aim is to prevent fragmentation of payment related matters in different laws. The CPA is not regarded as a financial sector law, and all such matters should rather be dealt with in appropriate legislation.

In light of the rapid developments in financial innovation related to payment systems, it has become necessary for the regulatory and legislative framework to be flexible and adaptable to these novel changes. In order to provide an enabling environment for innovation to thrive, the contemplated regulatory framework should remain robust and resilient to risks that may pose a threat to the safety and efficiency of the NPS.

Crypto assets consultation paper

On 16 January 2019, the South African regulatory authorities and policymakers namely the Financial Intelligence Centre (FIC), FSCA, National Treasury, South African Revenue Services (SARS) and the SARB published a consultation paper on crypto assets to industry stakeholders and the broader public for comment. The consultation paper proposes a policy and regulatory response to crypto asset activities in South Africa.

The objectives, as stated in the consultation paper42, are to:
  • highlight perceived risks and benefits associated with crypto assets;
  • deliberate on possible regulatory approaches; and
  • present policy proposals to the relevant stakeholders.

The paper focuses on two crypto asset use cases, purchase and sale of crypto assets as well as payments with crypto assets. The consultation paper defines crypto assets as “digital representations or tokens that are accessed, verified, transacted and traded electronically by a community of users. Crypto assets are issued electronically by decentralised entities and have no legal tender status, and consequently are not considered as electronic money either. It therefore does not have statutory compensation arrangements. Crypto assets have the ability to be used for payments (exchange of such value) and for investment purposes by crypto asset users. Crypto assets have the ability to function as a medium of exchange and/or unit of account and/or store of value within a community of crypto asset users.”

Risks and potential benefits

The risks cited in the consultation paper are both generic and specific for each use case. Generic risks include:
  • threat to central banks’ exclusive right to issue and control money supply;
  • the potential systemic nature of crypto assets to financial system stability; and
  • the fragmentation of the payment system, should the use of crypto assets evolve into a payment stream.

Specific risks posed by using crypto assets for payments include:
  • the use of crypto assets to make payments due to the lack of a regulatory regime;
  • negative impact on the payment system, due to parallel interoperable payment systems;
  • regulatory intervention could ‘legitimise’ crypto assets and increase their value; and
  • lack of consumer protection.

The perceived benefits of crypto assets for both use cases are that:
  • customers can benefit from purchasing crypto assets anonymously as well as be able to invest in an asset that is not linked to specific country-risk; and
  • holders of crypto assets can participate in an alternative market which could have lower transactional costs.

Regulatory response on crypto assets

The proposed regulatory approach to crypto assets is made more challenging by the ‘borderless’ use of crypto assets. This effectively could mean that some form of ‘coordinated global regulatory response’ would have to be in place to create consistent frameworks. South African regulatory authorities have reflected on the various approaches available to regulate crypto assets and have highlighted the following two broad approaches:
  • regulate and restrict new products as per existing regulatory frameworks; or
  • allow innovation in the financial sector.

The above-mentioned approaches are expanded on by literature which utilises a scoring approach for classifying approaches to regulate crypto assets (Table 10).

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42 The consultation paper is available on https://www.resbank.co.za/publications/detail-item-view/pages/publications.aspx?sarweb=3b6aa07d-92ab-441f-b7bf-bb7dfb1bedb4&arbitlist=2b93222b-7125-4e55-bb65-56fd3333371e&arbititem=9037

Financial Stability Review first edition 2019
Table 10  Crypto asset scoring approach

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>Ignore crypto assets</td>
</tr>
<tr>
<td>1</td>
<td>Monitoring – existence of crypto assets acknowledged by official body</td>
</tr>
<tr>
<td>2</td>
<td>Recommendation – official body proposes approach to deal with crypto assets</td>
</tr>
<tr>
<td>3</td>
<td>Guidance – official body issues guidance for use of crypto assets</td>
</tr>
<tr>
<td>4</td>
<td>Regulation – predefined conditions in order to allow formal authorisation to provide crypto asset related products and services</td>
</tr>
<tr>
<td>5</td>
<td>Ban or integration – total or partial prohibition or adoption of crypto assets</td>
</tr>
</tbody>
</table>

South Africa’s current regulatory approach, based on the above table, is classified as level 2 – given that the SARS issued a statement on the taxation of crypto assets. Prior to this, the SARB also issued a position paper on crypto assets in 2014. This position paper was meant to serve as a cautionary note to the public regarding the risks associated with crypto assets.

The regulatory approach that is proposed in the paper is the “limited regulation” (i.e. combination of level 3 and 4) approach (Table 10). The move to this level would allow South Africa to meet the recently amended anti-money laundering requirements as issued by the Financial Action Task Force. This would entail the FIC classifying crypto asset service providers as accountable institutions that must comply with certain requirements of the Financial Intelligence Centre Act 38 of 2001 (FIC Act).

The regulatory authorities need to keep up with technological innovations, particularly those that affect market infrastructures, such as payment systems. Market infrastructures are an integral part of financial system stability and should therefore not be compromised by innovation. Coordination with other regulatory authorities means that the necessary level of regulation will be attained and, in turn, this can mitigate imminent risks to the financial system.

International regulatory developments

Cyber-risks and financial stability

In their communiqué following the 2017 Hamburg G20 Summit, the G20 Finance Ministers and Central Bank Governors mandated the FSB to perform an assessment of regulations and supervisory practices relating to cyber-resilience in the G20 jurisdictions as well as to identify international best and effective practices. Following a survey by the FSB in April 2017, the BCBS published a report in December 2018, highlighting cyber-resilience practices from its member jurisdictions.

These developments followed the issuing of a report on “Cyber Resilience for Financial Market Infrastructures (FMIs)” in November 2015 by the International Organisation of Securities Commissions (IOSCO) and the BIS. This report noted that “the safe and efficient operation of FMIs is essential to maintaining and promoting financial stability and economic growth. In this context, the level of operational resilience of FMIs, including cyber-resilience, can be a decisive factor in the overall resilience of the financial system and the broader economy.”

In general, the BCBS report notes that most supervisors leverage previously developed national or international standards. Some of these include the National Institute of Standards and Technology framework, a voluntary framework that consists of standards, guidelines, and best practices to manage cybersecurity-related risk; the ISO 27000 series which is developed and published by the International Organization for Standardization (ISO) and the International Electrotechnical Commission aimed at providing a globally recognised framework for best-practice information security management; and lastly, the CPMI-IOSCO guidance for cyber-resilience of financial market infrastructures. Published and unpublished supervisory practices converge in some areas, such as governance, testing, information-sharing between banks and regulators, and management of outsourcing arrangements. Regarding regulatory strategies, while regulators generally do not require a specific cyber strategy, they expect institutions to maintain adequate capability in this area as part of their global strategies.

In terms of cyber-risk management, in most jurisdictions, broader information technology (IT) and operational risk management practices are quite mature and are used to address cyber-risk and supervise cyber-resilience. In particular, jurisdictions expect banks to have a strategy and framework to comprehensively map and actively manage their IT system architecture. Banks nonetheless generally still lack a cyber-strategy that defines clear tolerance and appetite levels for cyber-risk which have been approved and adequately challenged at board level.

The report also notes that governance arrangements for cyber-resilience are not always clearly articulated across technical, business and strategic lines. This, in addition to skills shortages, leads to recruitment challenges.

While there is generally an expectation to report on cyber- incidents, there is a lack of assessment metrics across jurisdictions. Although some forward-looking indicators of cyber-resilience are being picked up through the most widespread supervisory practices, no standard set of metrics has emerged yet. This makes it more difficult for supervisors and banks to articulate and engage on cyber-resilience.

44 http://www.g20.utoronto.ca/2017/170318-finance-en.html
45 https://www.bis.org/cpmi/publ/d138.pdf
47 https://www.itgovernance.co.uk/iso27000-family
48 https://www.bis.org/cpmi/publ/d146.htm
Information-sharing mechanisms on cyber-resilience involve bank-to-bank and bank-to-regulator communications, with the former being mostly done on a voluntary basis. Despite common features, the content and use of information collected or shared by banks and supervisors varies widely across jurisdictions. Other types of information-sharing – especially regulator-to-regulator, domestically and cross border – are less documented or systematic, but do take place on ad hoc and bilateral bases. Although the sharing of information among regulators can use existing channels – such as memoranda of understanding and supervisory colleges – the speed, latitude, security and fluidity of communications required to cope with a cross-border cyber-incident has led a few jurisdictions to take specific formal steps in this area.

One of the key findings of the report has been the importance of third-party risks. In particular, concerns around outsourcing activities across jurisdictions have become well established and share substantial commonalities. Supervisors in general expect their banks to properly manage risks from third party dependencies.

In South Africa, the PA issued Directive 3 of 201849 and Guidance Note 5 of 201850 relating to the management of cloud computing and the offshoring of data. The PA requires banks to follow a risk-based and principle-based approach in implementing measures to address their requirements to engage in cloud computing and/or the offshoring of data. However, the use of cloud computing or the offshoring of data should not be done at the expense of the legal requirement for banks to retain their data. In South Africa, legal entities such as banks are required to protect personal information under the POPI Act. The Cyber Bill is also making its way through the parliamentary process,51 with the aim to criminalise cybercrimes in South Africa. Aspects relating to cybersecurity will be dealt through another bill, in future.

Given the centrality of financial institutions in financial systems, their operational failure can negatively impact financial stability. It is therefore crucial that they adequately identify and manage risks that could impact their critical functions so that these functions are not compromised. The enhancement of cyber reliance safeguards helps to keep breaches of security controls at bay and ensure continued protection of information and data, and enhances the integrity and availability of critical assets and services to the financial system. These concerns are likely to continue to occupy the minds of regulators and regulated entities for the foreseeable future in their efforts to enhance and maintain financial stability.

Compensation and misconduct risk

On 23 November 2018, the FSB published the recommendations for national supervisors: “Reporting on the use of compensation tools to address potential misconduct risk”.52 The recommendations complement the FSB’s “Supplementary Guidance to the FSB Principles and Standards on Sound Compensation Practices”53 by giving guidance on the types of data a national supervisory authority could utilise to address misconduct risk in significant financial institutions. The recommendations are built on national supervisory work and existing international efforts, including Basel Committee Pillar III disclosures on compensation. The data set is designed to assist firms and supervisors in answering a number of important questions. These include whether governance and risk management processes surrounding compensation:

- appropriately include conduct considerations in the design of their compensation and incentive systems, including setting individual goals, ex-ante performance measurement mechanisms and ex-post compensation adjustments;
- support the effective use of compensation tools in combination with other performance management tools to help promote good conduct or to remediate misconduct;
- promote wider risk management goals, including for conduct issues, consistent with the firm’s strategy and risk tolerance; and
- support the effective identification of emerging misconduct risks and appropriate review of incentive systems and compensation decisions in response to conduct incidents to ensure alignment of incentives, risk and reward.

The reported data will remain with the relevant national authority and the reporting protocols will reflect national law, including privacy and confidentiality provisions applicable to supervisory dialogues. These are not intended to be prescriptive but rather guidelines/suggestions of certain categories of data that may enhance supervisory dialogue with firms.

The 2018 Financial Markets Review document published by the SARB, the National Treasury and the FSCA indicate that, King IV recommends that remuneration policy be designed to (i) attract, motivate, reward and retain human capital; (ii) promote the achievement of strategic objectives within the firm’s risk appetite; (iii) promote positive outcomes across the economic, social and environmental context in which the firm operates; and (iv) promote an ethical culture and responsible corporate citizenship. The recommendations are aimed at ensuring that compensation practices in South Africa are aligned to international best practices.

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50 http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/8747/G5%20of%202018.pdf
51 Refer to the earlier section on “Update on the Cybercrimes Bill”
## Appendix 1

### Table 1.1  Selected indicators of the South African banking sector

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th></th>
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<tr>
<td></td>
<td>Aug</td>
<td>Sep</td>
<td>Oct</td>
<td>Nov</td>
<td>Dec</td>
<td>Jan</td>
</tr>
<tr>
<td>Market share in terms of assets (top five banks)</td>
<td>90.21</td>
<td>90.34</td>
<td>90.19</td>
<td>90.36</td>
<td>90.33</td>
<td>90.47</td>
</tr>
<tr>
<td>Gini concentration index</td>
<td>83.57</td>
<td>83.67</td>
<td>83.51</td>
<td>83.58</td>
<td>83.61</td>
<td>83.21</td>
</tr>
<tr>
<td>Herfindahl–Hirschman Index (H-index)</td>
<td>0.179</td>
<td>0.179</td>
<td>0.178</td>
<td>0.179</td>
<td>0.179</td>
<td>0.179</td>
</tr>
<tr>
<td>Banks’ share prices (year-on-year percentage change)</td>
<td>16.96</td>
<td>17.99</td>
<td>9.23</td>
<td>15.91</td>
<td>3.27</td>
<td>2.42</td>
</tr>
</tbody>
</table>

**Balance sheet**

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</thead>
<tbody>
<tr>
<td>Total assets (R billions)</td>
<td>5 416</td>
<td>5 415</td>
<td>5 472</td>
<td>5 469</td>
<td>5 523</td>
<td>5 520</td>
<td>5 539</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>year-on-year percentage change</td>
<td>8.1 5.8</td>
<td>6.8 7.1</td>
<td>7.1 7.4</td>
<td>6.6 6.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total loans and advances (R billions)</td>
<td>4 016</td>
<td>4 023</td>
<td>4 020</td>
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<td>4 118</td>
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<td>year-on-year percentage change</td>
<td>6.1 4.0</td>
<td>4.3 4.5</td>
<td>8.4 8.4</td>
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**Capital adequacy**

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<tbody>
<tr>
<td>Total capital adequacy ratio</td>
<td>16.5</td>
<td>16.5</td>
<td>16.3</td>
<td>16.1</td>
<td>16.1</td>
<td>16.1</td>
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<tr>
<td>Tier 1 capital adequacy ratio</td>
<td>13.3</td>
<td>13.3</td>
<td>13.1</td>
<td>13.1</td>
<td>13.2</td>
<td>13.2</td>
<td>13.4</td>
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<tr>
<td>Common equity Tier 1 capital adequacy ratio</td>
<td>12.8</td>
<td>12.8</td>
<td>12.6</td>
<td>12.5</td>
<td>12.6</td>
<td>12.6</td>
<td>12.7</td>
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**Credit risk**

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<tbody>
<tr>
<td>Impaired advances (R billions)**</td>
<td>144</td>
<td>147</td>
<td>150</td>
<td>150</td>
<td>153</td>
<td>156</td>
<td>157</td>
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<tr>
<td>Impaired advances to gross loans and advances</td>
<td>3.6</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
<td>3.9</td>
<td>3.8</td>
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<tr>
<td>Specific credit impairments (R billions)</td>
<td>64</td>
<td>66</td>
<td>68</td>
<td>68</td>
<td>70</td>
<td>72</td>
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<tr>
<td>Specific credit impairments to impaired advances</td>
<td>44.9</td>
<td>45.2</td>
<td>45.3</td>
<td>45.2</td>
<td>45.6</td>
<td>45.8</td>
<td>46.0</td>
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<tr>
<td>Specific credit impairments to gross loans and advances</td>
<td>1.6</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
<td>1.8</td>
<td>1.8</td>
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**Profitability**

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<tbody>
<tr>
<td>Return on assets (smoothed)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
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<tr>
<td>Return on equity (smoothed)</td>
<td>15.8</td>
<td>15.5</td>
<td>15.6</td>
<td>15.9</td>
<td>16.1</td>
<td>15.8</td>
<td>15.9</td>
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<tr>
<td>Interest margin to gross income (smoothed)</td>
<td>56.6</td>
<td>57.2</td>
<td>57.2</td>
<td>56.6</td>
<td>56.5</td>
<td>56.7</td>
<td>56.5</td>
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<tr>
<td>Operating expenses to gross income (smoothed)</td>
<td>57.4</td>
<td>57.6</td>
<td>57.5</td>
<td>57.4</td>
<td>57.2</td>
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**Liquidity**

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<tr>
<td>Liquid assets to total assets (liquid asset ratio)</td>
<td>10.2</td>
<td>10.5</td>
<td>10.3</td>
<td>10.6</td>
<td>10.3</td>
<td>10.3</td>
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<tr>
<td>Liquid assets to short-term liabilities</td>
<td>20.7</td>
<td>21.0</td>
<td>20.7</td>
<td>21.2</td>
<td>20.5</td>
<td>21.0</td>
<td>21.1</td>
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<tr>
<td>Liquidity coverage ratio (LCR)</td>
<td>131.5</td>
<td>126.7</td>
<td>128.7</td>
<td>134.0</td>
<td>127.8</td>
<td>133.1</td>
<td>138.3</td>
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</table>

* Data were updated on 15 May 2019
** Impaired advances are advances in respect of which a bank has raised a specific impairment and includes any advance or restructured credit exposures subject to amended terms, conditions or concessions that are not formalised in writing.

Sources: SARB, data on share prices were obtained from the JSE
Abbreviations

AGR  augmented Guidotti ratio
AGSA  Auditor General of South Africa
Alsi  JSE All-share index
APA  Auditing Profession Act 26 of 2005
BCBS  Basel Committee on Banking Supervision
BER  Bureau for Economic Research (University of Stellenbosch)
BIS  Bank for International Settlements
BRICS  Brazil, Russia, India, China and South Africa
CCI  Consumer Confidence Index
CCyB  countercyclical capital buffer
CDR  credit default swap
CoFI  Conduct of Financial Institutions
Cyber Bill  Cybercrimes and Cyber Security Bill of 2017
EAD  exposure at default
EBIT  earnings before interest and taxes
EDFR  expected default frequency
EMEs  emerging market economies
EWC  expropriation without compensation
FAIS  Financial Advisory and Intermediary Services Act 37 of 2002
Fed  United States Federal Reserve
FIC  Financial Intelligence Centre
FMI  financial markets infrastructure
FNB  First National Bank
FOF  fund of funds
FSB  Financial Stability Board
FSC  Financial Stability Committee
FSOA  Financial Sector Conduct Authority
FSOC  Financial Stability Oversight Committee
FSR Act  Financial Sector Regulation Act 9 of 2017
G20  Group of Twenty
GBI-EM  Global Bond Index – emerging markets
GDP  gross domestic product
GFSG  Green Finance Study Group
GFSI  global financial stress index
GR  Guidotti ratio
H-index  Herfindahl–Hirschman Index
HPI  House Price Index
ICR  interest coverage ratio
IFRS  International Financial Reporting Standard
IIF  Institute of International Finance
IMF  International Monetary Fund
IOSCO  International Organization of Securities Commissions
IRBA  Independent Regulatory Board for Auditors
ISO  International Organization for Standardization
JSE  JSE Limited
JPM  JP Morgan
LGD  loss given default
MAFR  mandatory audit firm rotation
MCR  minimum capital requirements
MMF  money market funds
MTBPS  Medium Term Budget Policy Statement
NBFI  non-bank financial intermediation
NCR  National Credit Regulator
NGFS  Network for Greening the Financial System
NPS  national payment system
NPS Act  National Payment System Act 78 of 1998
OFI  other financial intermediary
PA  Prudential Authority
PAAB  Public Audit Amendment Bill
PE  Price earnings multiple
PSMB  Payment System Management Body
RAM  Risk Assessment Matrix
RMB  Rand Merchant Bank
ROA  return on assets
ROE  return on equity
S&P  Standard & Poor’s
SAM  Solvency Assessment and Management
SARB  South African Reserve Bank
SCR  solvency capital requirements
SDR  special drawing right
SIFI  systemically important financial institution
SIPS  systemically important payment system
SME  small- and medium-sized enterprise
SOE  state-owned entity
SSA  sub-Saharan Africa
TCF  Treating Customers Fairly
TCFD  Task Force on Climate-related Financial Disclosures
TWI  trade weighted index
US  United States
WEO  World Economic Outlook
WGBI  World Government Bond Index