

Financial Stability Review

First edition
2018



South African Reserve Bank

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This issue of the *Financial Stability Review* focuses mainly on the six-month period ending December 2017. However, selected developments up to the date of publication are also reported on. Data may include own calculations made for the purposes of this publication.

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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 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 mandate 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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Overview

After the President of the Republic of South Africa signed the Financial Sector Regulation Act 9 of 2017 (FSR Act) into law, the Minister of Finance gazetted the effective date of implementation as 1 April 2018. This marks the formal implementation of the new Twin Peaks regulatory framework in South Africa. The FSR Act also confers onto the South African Reserve Bank (SARB) an explicit, statutory mandate to protect and enhance financial stability in South Africa. New legislation that will facilitate the resolution of failing systemically important financial institutions, an important pillar of the SARB's expanded mandate, has been developed by the SARB and National Treasury and will be effected through amendments to the FSR Act. A key component of the resolution framework is the establishment of an explicit deposit insurance scheme for banks.

The SARB regularly assesses the risks to financial stability with a view to identifying and mitigating vulnerabilities in the domestic financial system. Risks identified and which form part of the SARB's assessment include (i) a still vulnerable domestic fiscal position, particularly relating to the rising contingent exposures to state-owned enterprises (SoEs), notwithstanding measures of fiscal consolidation and debt stabilisation announced in the Budget; (ii) persistent low levels of economic growth and its potential impact on the asset quality of banks; (iii) an abrupt repricing of global risk premiums triggered by an advanced economy policy expectation shock; and (iv) rising prospects of trade protectionist measures and potential retaliatory measures by affected countries. Amplification mechanisms and contagion effects are key for these potential risks identified as well as for other risks that are not specifically featured in the SARB's risk assessment matrix. Some of these other risks include global geopolitical events that flare up from time to time (e.g. North Korea, Gulf States and Brexit) and the uncertainty for the banking sector related to its exposures to property as collateral, should the expropriation of mortgaged land without compensation be effected.

Other event risks with potential systemic implications that occurred during the reporting period included the announcement of an investigation of accounting irregularities and the subsequent resignation of the Chief Executive Officer of Steinhoff International Holdings. The group's share price declined by more than 80%, which resulted in a short-term liquidity crisis within the group. To date, the group has taken various actions to stabilise the impact of the event on its finances and operations in the medium term. Any potential financial implications arising from this event would most likely be as a result of a default on its debt obligations and the financial sector's exposure thereto. While such a default could cause losses for banks, lenders and investors, this is unlikely to result in financial instability. Developments relating to this event are, nevertheless, continually monitored.

Furthermore, an increase in the volatility of some equities listed on the JSE Limited has been observed since December 2017. In the case of the sharp and brief decline in the share price of Capitec Bank, it could have been triggered by a 'short-selling' strategy applied by some investors, which is not commonly used in South African financial markets. Common traits of a short selling strategy include influencing market participants'

perceptions, which include the extensive use of social media platforms, sensationalist language and, potentially, an ongoing campaign against the targeted entity. This type of short-selling strategy has the potential to create financial instability, especially if the targeted company is a deposit-taking institution and the short-selling campaign results in a negative feedback loop between declining investor confidence (as reflected in a decline in the equity price of the targeted institution) and a loss of depositors' confidence in the targeted deposit-taking institution (as reflected in a decline in deposits or a 'run' on the bank). The negative feedback loop has the potential to exacerbate the circumstances, even if the trigger event was based on inaccurate information. Although banks are potentially systemically important by nature, a significant decline in a bank's equity price is not necessarily regarded as a systemic risk. Statements made by the SARB and suitable responses by Capitec Bank calmed fears and led to a recovery in Capitec's share price.

Other potentially systemic events that occurred during the reporting period included two settlement failures at domestic financial market infrastructures causing certain trades to either fail or remain in an unsettled state in the securities market. These events were reported via the Financial Sector Contingency Forum and managed by the SARB through its interaction with market participants. A review of these settlement disruptions has been commissioned, and will be addressed.

The global economy continued to strengthen during the second half of 2017 and it appears that a broad-based cyclical recovery is underway. The upswing in economic growth has been widespread, with better-than-expected growth in Europe and Asia. In January 2018, the International Monetary Fund revised upwards most countries' economic growth outlooks for 2018 and 2019, but also warned against possible risks to an economic growth recovery, including the possibility of sharp financial market corrections in cases where asset valuations were overextended as well as subdued productivity, increased protectionism and higher geopolitical pressures.

The improved outlook for global economic growth might also translate into faster-than-expected increases in interest rates by the United States (US) and other advanced economies. For emerging markets in general, this could lead to a reversal in capital flows, particularly to the extent that possible rate hikes were not priced in sufficiently. Although domestic financial markets could be severely impacted by negative developments in the global economic and financial landscape, an improvement in the global macroeconomic environment could, however, have positive spillover effects on future domestic economic growth. Domestic economic growth for 2017 is 1.3%, while the SARB's forecast for 2018 has been adjusted upwards from 1.4% to 1.7%. This outlook is in line with the upward trend of the SARB's composite leading business cycle indicator of economic activity and could mainly be attributed to positive global growth prospects and positive sentiments domestically, following political developments since December 2017. These developments have also impacted positively on investor sentiment towards South Africa, as foreign purchases of South African bonds and equities remained positive.

For the reporting period and including data reported for January 2018, the banking sector's capital remained well above the minimum regulatory requirement. Although impaired advances and credit impairments increased in January 2018, credit default ratios declined or remained largely unchanged. Further analysis of the asset quality of the banking sector indicates that reported defaulted exposures did not increase in January 2018, but that the deterioration in impaired advances was largely a result of the implementation of International Financial Reporting Standard 9, which requires the implementation of a more forward-looking recognition of credit impairments. Since February 2017, the sector's profitability has declined, but only marginally, while liquidity management – that is, managing the demand for medium- and long-term credit given shorter dated sources of funding – has improved even further.

The affordability of household debt continued to improve. In this regard, the debt-to-income ratio declined from 72% in the third quarter of 2017 to 71.5% in the fourth quarter. The year-on-year growth in the debt-service cost of households picked up slightly in the fourth quarter compared with the third quarter. Of significance for future debt-service cost is the introduction of the Affordability Assessment Regulations in mid-2016 as part of the National Credit Amendment Act. These regulations require more stringent standards to be incorporated when extending credit. A marginal improvement in consumer confidence was recorded by the First National Bank/Bureau for Economic Research Consumer Confidence Index in the final quarter of 2017. This was mainly due to an improvement in consumers' outlook of South Africa's economic performance in 2018, based on a recovery in domestic economic growth in the second and third quarters of 2017. The financial position of households' sub-index, however, declined by 2 index points. A breakdown of the survey results per household income group indicates that the decline in the financial outlook was mostly due to a deterioration in the financial outlook of low-income earners. With the increase in value-added tax in April 2018, households' financial position is expected to be negatively impacted.

The slowdown in the growth of nominal house prices that began in the second half of 2015 became more pronounced in early 2018. The persistent moderation in house price growth was driven mainly by the subdued domestic economic conditions and outlook as reflected in the consumer and business confidence levels, and constrained household finances.

Fiscal sustainability has been raised as a determining factor by the rating agencies for sovereign credit rating assessments. Although government debt has been cited as one of the concerns of rating agencies, it appears that they interpreted the Budget delivered in February 2018 positively and welcomed the measures of fiscal consolidation and debt stabilisation that were taken. Although the government debt outlook has deteriorated since the 2017 Budget, it has improved since the release of the *Medium Term Budget Policy Statement* in October 2017 as the debt is expected to stabilise around 56.2% of gross domestic product by 2022/23.

Both Standard & Poor's and Fitch Ratings downgraded South Africa's sovereign credit rating to sub-investment grade in late 2017, while Moody's Investors Service (Moody's) kept South Africa's rating unchanged at investment grade, and changed

the outlook from negative to stable in March 2018. Positive macroeconomic indicators, management changes at some SoEs and an improved Budget contributed to the decision by Moody's. It remains important, however, to address remaining governance issues at SoEs as well as the possibility that rising contingent liabilities and associated liquidity shortfalls could put additional pressure on government finances through the increased usage of government guarantees. Financial stability centres around the ability of SoEs to roll over debt and achieve financial consolidation. Should SoEs fail to roll over debt, the government would be liable and might not be able to honour such debt.

Corporate profitability has been persistently weak as domestic demand remained subdued amid low consumer and business confidence. During the reporting period, credit extended to corporates slowed amid weak domestic demand and low business confidence in an environment of heightened political uncertainty at the time. Foreign currency-denominated debt securities held by corporates in South Africa increased to US\$10.1 billion in the fourth quarter of 2017 compared with US\$9.83 billion in the previous quarter. Although this is relatively low compared to other EMs, further increases in interest rates in advanced economies could cause EM exchange rate depreciation, impacting negatively on corporate 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, it is expected that over 70% of South African corporates could record EDFs below 3% by the end of March 2018, implying that there would be a less than 3% probability that these corporates would be unable to honour their debt obligations in the following year. Despite this relatively positive picture, the distribution of firms' EDFs has shifted since November 2016, with a higher percentage of firms having higher probabilities of default.

In conclusion, it is clear that the global and domestic financial system has improved since the publication of the previous edition of the *Financial Stability Review* in November 2017. This view is mainly based on a more synchronised and sustainable recovery in economic and financial conditions globally, a more positive albeit still challenging domestic economic growth outlook, improved levels of confidence following positive political developments since December 2017, and the affirmation in March 2018 by Moody's of South Africa's sovereign credit rating at investment grade with a stable outlook. Some global uncertainties caused by a number of economic and financial developments remain, including faster-than-expected monetary policy normalisation in advanced economies and trade protectionist measures. Despite these challenges, the South African financial system continues to efficiently facilitate financial intermediation and mitigate negative spillovers and disruptions. Overall, despite some headwinds from a challenging moderate economic growth scenario and some remaining fiscal challenges, the financial sector is assessed as strong and stable. The financial sector is also characterised by well-regulated, highly capitalised, liquid and profitable financial institutions, supported by a robust regulatory and financial infrastructure.

Financial stability developments and trends

Economic growth outlook

There is an improved economic growth outlook for advanced economies and emerging markets.

There are strong linkages between financial stability and real economic activity. It is generally accepted that a stable financial system provides a foundation for sustainable economic growth. Conversely, developments in the real economy also have an impact on financial stability. For example, low levels of economic growth impact financial stability directly through higher unemployment and the reduced ability of households and corporates to service debt. A persistently low economic growth environment can also have a negative impact on the profitability of banks and insurers, and increase credit risks. Extended periods of low economic growth, and the associated economic and social hardships, can adversely impact political and social stability as well as the policy consensus necessary for economic recovery, and also put a country's sovereign credit rating at risk. It is therefore important to monitor trends in real economic activity as well as the financial sector to assess possible spillovers that are systemic in nature and could affect the stability of the financial system as a whole.

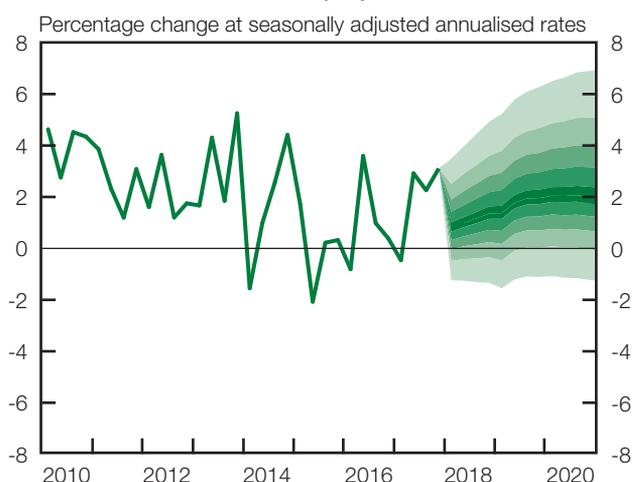
Global economic activity continued to strengthen during the second half of 2017 and it appears that a broad-based cyclical recovery is underway. The upswing in economic growth has been widespread, with better-than-expected growth in Europe and Asia.¹ According to the International Monetary Fund (IMF) possible risks to a recovery include the probability of sharp financial market corrections in cases where asset valuations are overextended, as well as subdued productivity, increased protectionism and more intense geopolitical pressures (see Box 1). In January 2018, the IMF revised most countries' economic growth outlooks upwards for 2018 and 2019.

The economic growth forecast for the United States (US) was revised upwards by the IMF after taking into account the higher-than-expected economic growth in 2017, increased external demand and the anticipated positive macroeconomic impact of tax reforms. Economic growth in most euro area countries were stronger following higher domestic and external demand. The outlook for emerging markets (EMs) and developing countries in general remained optimistic but varied across different regions. The economic growth in China was expected to moderate steadily. Although growth in sub-Saharan Africa was revised marginally downwards, positive economic growth was still expected, boosted mainly by a significant increase in expected economic growth in Nigeria. The economic growth outlook for South Africa is more positive, albeit still challenging.

An improvement in the global macroeconomic environment could, however, have positive spillover effects on future domestic economic growth. Economic

¹ International Monetary Fund, *World Economic Outlook Update*, January 2018.

Figure 1 South African real gross domestic product outcomes and projections*



* Fan charts reflect uncertainty associated with the projections at different horizons through a range of confidence intervals. The darkest band at the centre of the fan chart represents the most likely 10% of the probable outcomes, including the central projections. Moving away from the central projections, the area covered by each successive band, shaded slightly lighter and added on either side of the central band, adds a further 20% to the probability, until the whole shaded area depicts a 90.0% confidence interval. The width of the coloured confidence bands is an indication of the estimated uncertainty.

Sources: Stats SA and SARB

growth for 2017 is 1.3%,² and the South African Reserve Bank’s (SARB) forecast for 2018 was revised to 1.7% (Figure 1). This outlook is in line with the upward trend of the SARB’s composite leading business cycle indicator of economic activity. The Absa Purchasing Managers’ Index (PMI)³ supported the improved outlook as it increased to above the neutral 50 index point mark in February 2018 for the first time since May 2017. Following strong growth in December 2017 and January 2018, the BankservAfrica Economic Transaction Index (BETI)⁴ slowed somewhat in February but did not decline – there has been no decline in the BETI in the past four months. The IMF nevertheless revised down South Africa’s economic growth projections for both 2018 and 2019 to 0.9% (from 1.1% and 1.6% in 2018 and 2019 respectively), citing that political uncertainty could weigh on confidence and investment.⁵

Economic growth in sub-Saharan Africa is expected to pick up from 2.7% in 2017 to 3.3% in 2018 and 3.5% in 2019. The IMF revised Nigeria’s growth forecast upwards⁶ as it is expected to benefit from generally higher oil prices. For the sub-Saharan Africa region as a whole, limited fiscal or monetary space, high debt levels and high debt-service costs still pose a downside risk to the region’s growth outlook.

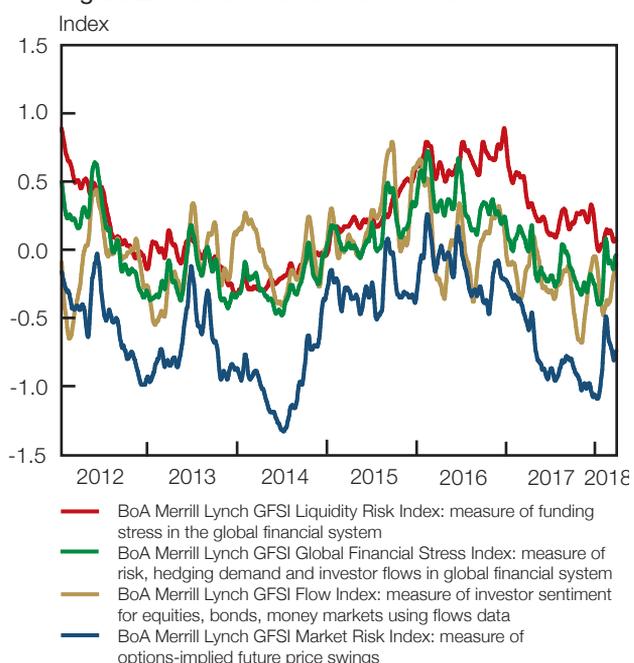
Financial markets

The end of benign global financial market conditions were reflected by heightened global risk aversion as liquidity and market risk stress measures increased, creating concern about an imminent global equity market correction.

The improved outlook for global economic growth could also translate into a faster pace of normalisation of monetary policy by the US and other advanced economies. For EMs in general, this could lead to a reversal in capital flows, particularly to the extent that possible rate hikes had not yet been sufficiently priced in. Given the interconnectedness between global and domestic financial markets, the performance of domestic financial markets would most likely be impacted by developments in the global economic and financial landscape.

Global financial market stress indices increased sharply in February 2018, triggered by a higher global interest rate outlook and buoyant average earnings in the US labour market. Fears of a near-term correction in global equity markets surfaced in early February 2018 when sharp, but temporary declines in US and global equity prices were recorded. This particular sell-off was

Figure 2 Global risk aversion levels



Source: Bloomberg

2 South African Reserve Bank, *Monetary Policy Statement*, March 2018.
 3 Absa Purchasing Managers’ Index, Bureau for Economic Research, Stellenbosch University, February 2018.
 4 BankservAfrica Economic Transaction Index, 14 March 2018. The BankservAfrica Economic Transaction Index is an early economic scorecard that provides an overall trend in economic activity in the near term.
 5 International Monetary Fund, *World Economic Outlook Update*, January 2018.
 6 International Monetary Fund, *World Economic Outlook Update*, January 2018.

driven by the hawkish outlook for the US federal funds rate, as a sudden increase in this rate could negatively impact on an apparent overvalued global stock market. Valuations of global stock market indices depict a dichotomy of results: the price-earnings ratio and the price-to-book ratio suggest that the global market is overvalued and might be trading at levels that are not supported by economic fundamentals, but the 12-month forward earnings multiple assumes that the rally is underpinned by solid global economic activity, which supports a bullish position on expected returns.

What could be of concern to financial stability authorities is the potential global contagion effects of a prolonged equity bear market. Global risk aversion measures have deteriorated over the past few months, threatening benign market conditions. The deterioration in the Bank of America Merrill Lynch's Global Financial Stress Index (GFSI), driven by the increase in the market risk stress component and the liquidity stress measure of global funding, has supported this view (Figure 2). The increase in the GFSI market risk index captured concerns about expected volatility in the prices of global financial assets and reflected vulnerabilities of overvalued global financial assets to near-term price corrections. In addition, the sharp rise in the GFSI Global Liquidity Risk Index in February 2018 also reflected the risk of higher global interest rates on funding for risky assets.

Elevated financial stress levels, coupled with turning points in the 30-day moving average of the Chicago Board of Exchange's (CBOE) equity put-call options ratio signalled a peak in the 30-day moving average of the South African JSE Limited (JSE) All-Share Index (Alsi) in February 2018. These two measures are broadly inversely related. The CBOE equity put-call options ratio bottomed out towards the end of January 2018, indicating that market expectations of a sell-off in the US had risen faster than market expectations of a rally in the US equity market. Given the spillover effects into the South African equity market, the Alsi recorded a peak comparable to that of 2010 and 2014. The recent sell-off in the South African equity market was driven mainly by heightened global risk aversion (Figure 3).

The February 2018 equity market correction saw the Dow Jones Industrial Index record its biggest fall in six years, losing 4.6% in a single day. The Standards & Poor's 500 Index (S&P 500) and the Alsi fell by 4.1% and 2.6% respectively as a global sell-off of equities ensued. During this period, volatility in the US bond market,⁷ global currency markets, high-yield corporate bond markets, and EMs and developed equity markets⁸ also increased compared to averages recorded in 2017. These developments proved to be temporary in nature and restricted to the equity market, while valuations in other asset classes remained stretched. The risk of further corrections therefore remains high (Figure 4).

Figure 3 Possibility of a global equity market correction

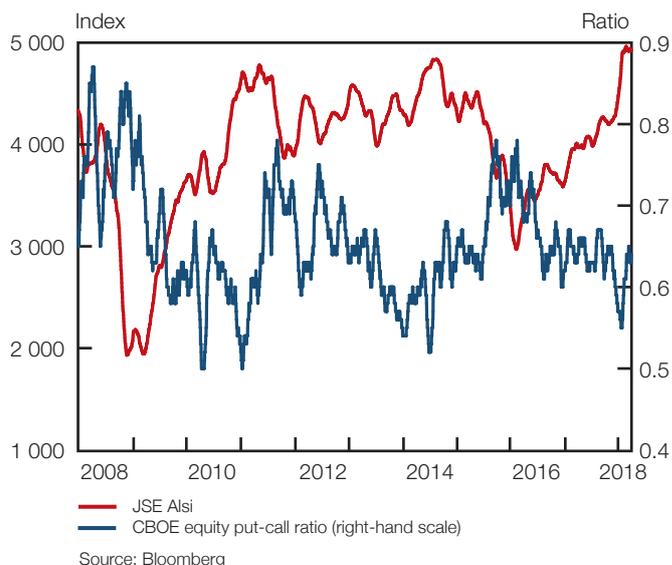
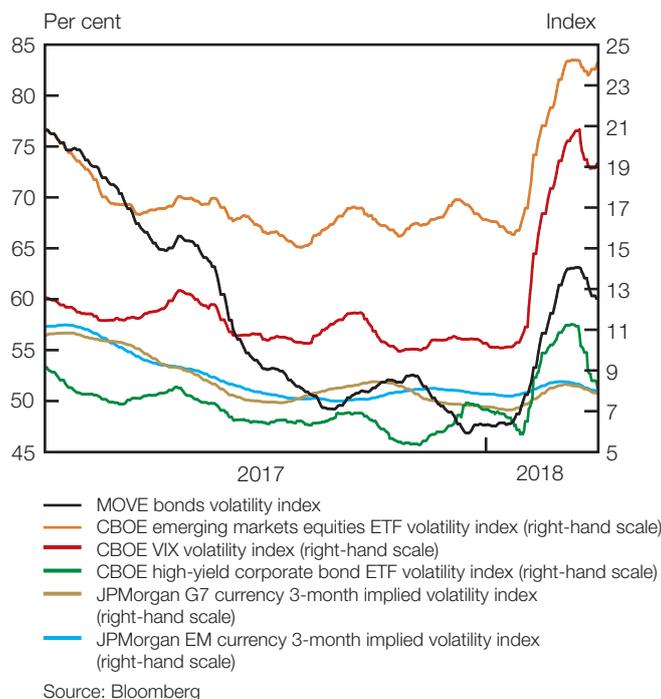


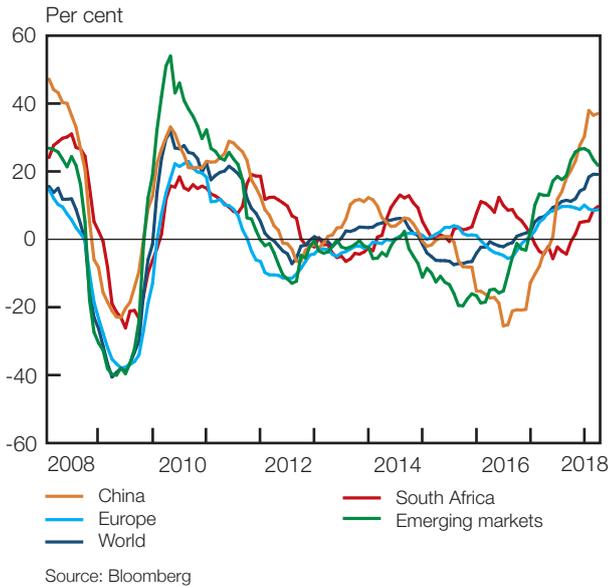
Figure 4 Volatility indices



7 The Merrill Lynch Option Volatility Estimate (MOVE) Index is a yield curve-weighted index of the normalised implied volatility on one-month Treasury options.

8 VIX is the ticker symbol for the Chicago Board Options Exchange (CBOE) Volatility Index, which shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 Index options. This volatility is meant to be forward looking, is calculated from both calls and puts, and is a widely used measure of market risk, often referred to as the 'investor fear gauge'.

Figure 5 Morgan Stanley Capital International 12-month forward earnings annual growth rate



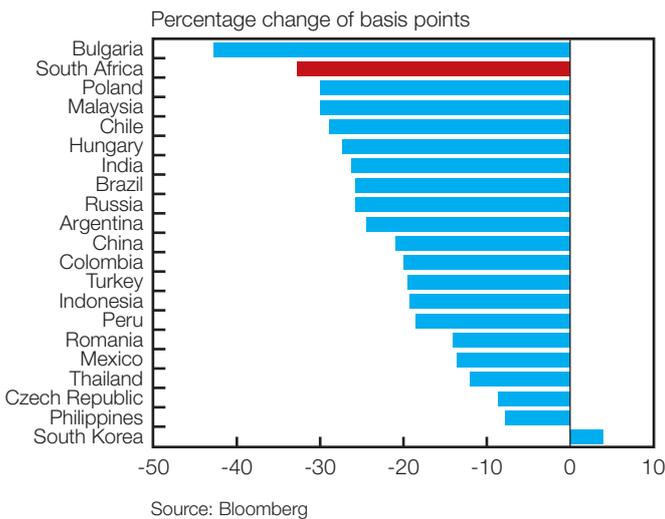
A cyclical recovery in global earnings could support risky assets.

Despite a possible correction in global equities and other risky assets, a cyclical recovery in global earnings could support the demand for risky assets. South Africa's earnings outlook for equities continued to lag its international peers, despite a significant recovery in expected earnings for EM equities (Figure 5). Improvements in the PMIs of different countries, including China, have entrenched market expectations of a sustained recovery in global economic activity. Therefore, positive economic data could provide a cushion to some extent during periods of elevated levels of risk aversion and asset price volatility.

EMs' sovereign risk eased as currencies strengthened against the US dollar

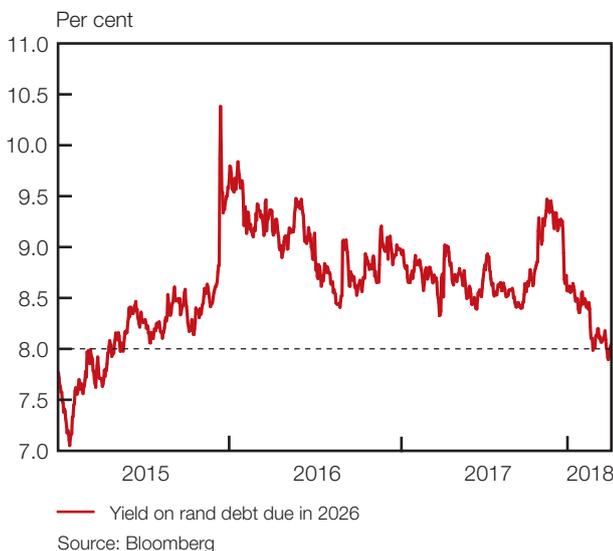
The appreciation of EM currencies during the past 12 months led to a decline in five-year credit default swap (CDS) spreads of these countries' sovereign debt instruments. Although the sovereign debt instruments of Argentina, Turkey, South Africa, Brazil and Russia rank among the riskiest in terms of investor perceptions (with spreads ranging between 111 and 250 basis points), the recent appreciation of EM currencies against the US dollar brought about a double-digit percentage decline in their five-year CDS spreads for the past 12 months (Figure 6).

Figure 6 Emerging markets: five-year credit default swap spreads



South Africa's CDS spread narrowed by 33% for the 12 months to 3 April 2018, and the rand appreciated by 10.6% against the US dollar, mainly based on positive sentiment following domestic political developments, favourable interest rate differentials and positive outcome of the rating assessment by Moody's. The impact of a stronger rand exchange rate was also reflected in the 2026 rand-denominated debt, with yields dropping to 8% for the first time since 2015 (Figure 7). The average nominal interest rates from selected key advanced economies as well as oil prices and global inflation have gone through a full cycle since 2015. The upward movements in these variables, led by a rise in oil prices, possibly indicates the end of negative or low global interest rates (Figure 8). Since the 2008 global financial crisis, the spread between global interest rates of leading advanced economies and the South African 10-year bond yield benchmark has widened.

Figure 7 South African bond yield



South Africa's favourable interest rate differential has supported the rand and foreign portfolio inflows.

South Africa remains in an advantageous position on interest rate differentials despite rising global inflation and interest rates in key global economies (Figure 9). Although global inflation has increased in 2018, reaching its highest level of the past two years, South Africa's favourable interest rate differential is still expected to support the currency at current levels of foreign investment.

Sentiment towards EMs deteriorated following the global equity market correction and, if US interest rates increase faster than expected, mispriced risk premiums could lead to a reversal of capital flows.

The short-lived global equity market correction during February 2018 resulted in a deterioration in investor sentiment towards riskier EMs, interrupting a 14-month streak of net portfolio inflows into EMs. February's equity market sell-off led to EM equity portfolio outflows of US\$5.8 billion, while EM bond markets recorded modest inflows of US\$1.3 billion (Figure 10). A key risk facing EMs is a mispricing of risk premiums in the event of a faster-than-expected rise in US interest rates.

Since the last quarter of 2017, foreign purchases of South African bonds and equities have been relatively positive. In the past five months, net purchases of domestic equities by non-residents amounted to around R67 billion. Net purchases of South African bonds by non-residents picked up in 2018, recording R17.9 billion in February following an outflow of R4.4 billion in January 2018 (Figure 11). Positive investor sentiment towards South Africa is likely to continue on the back of its favourable interest rate differentials and avoidance of a ratings downgrade by Moody's.

Financial institutions

Banks and bank lending conditions

Since September 2016, South Africa's retail banks have, in general, left their credit lending standards unchanged.⁹ Whereas instalment sale and leasing finance applied for and granted has been increasing since January 2016 (Figure 12), mortgage loan applications and the amounts granted started to decline in December 2017, reaching levels similar to those recorded in January 2016.

South African retail banks' credit standards remained unchanged. Instalment sale and leasing finance granted increased, while mortgages applied for and granted declined.

The sector remained concentrated, with the five largest banks in South Africa representing more than 90% of the total assets of the banking sector (Annexure 1, Table 1.1). Year-on-year growth in total assets moderated slightly in January 2018 after reaching a high of 5.8% in December 2017. Although loans and advances constituted the largest portion of the sector's balance sheet, from September 2017 growth in total assets started to diverge slightly from the year-on-year growth in total gross loans and advances. The increased growth in assets other than loans and advances could indicate that the sector has started to diversify its investment portfolio in assets other than loans.

⁹ Lending standards for the South African banking sector are compiled by the Bureau for Economic Research and use a net balance statistic to interpret the survey results. The net balance is the percentage of bank survey respondents who tightened lending standards compared with the same quarter a year earlier, minus those banks that eased lending standards. The percentage that did not make changes is ignored.

Figure 8 Global interest rates

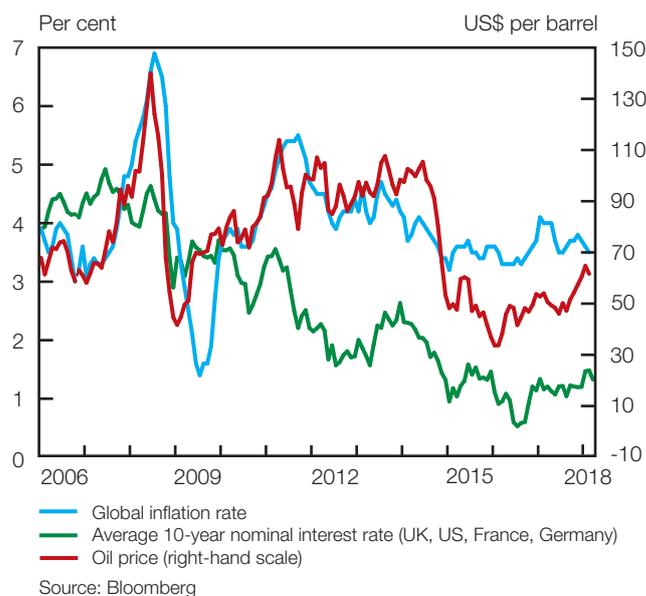


Figure 9 South African and global bond spreads

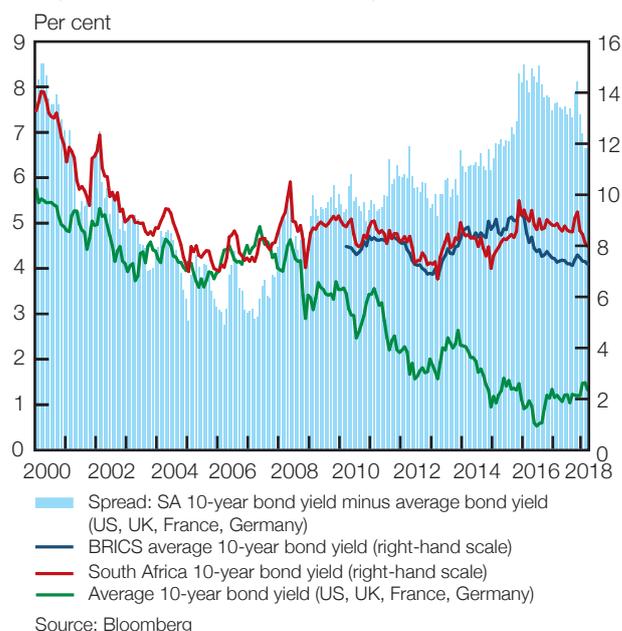


Figure 10 Non-resident portfolio flows into emerging markets

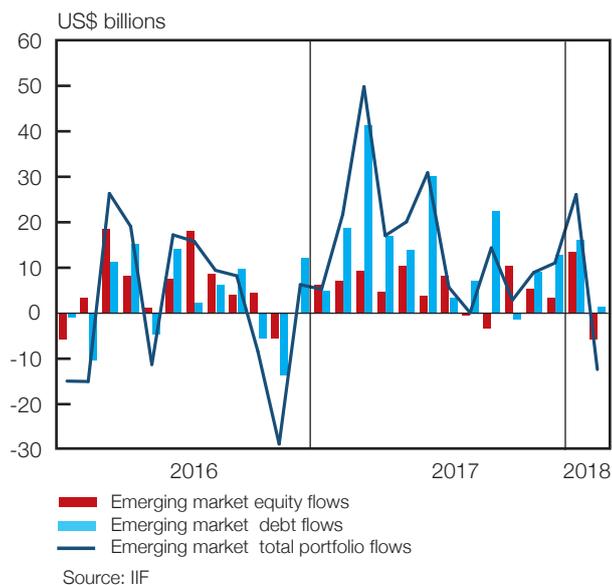


Figure 11 Non-resident purchases of South African bonds and equities

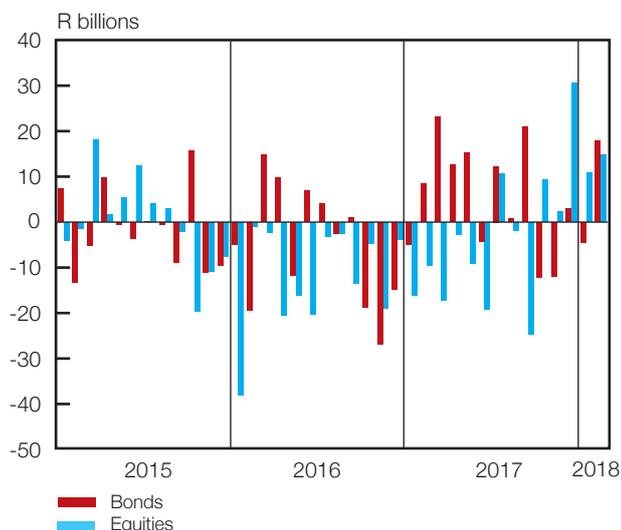
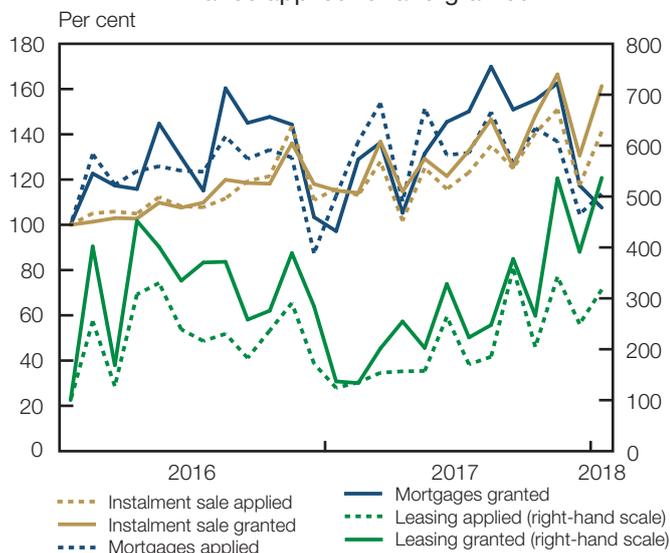


Figure 12 Mortgages, instalment sales and leasing finance applied for and granted



For the reporting period and including data reported for January 2018, the sector's capital as measured by the capital adequacy ratio (CAR) remained well above the minimum regulatory requirement.

Increases in impaired advances and a decline in default ratios reflect the IFRS 9 change.

A key indicator of credit risk in the banking sector is the ratio of total impaired advances¹⁰ as a percentage of total gross loans and advances. For the South African banking sector, this ratio remained at 2.8% from August to December 2017, but increased to 3.1% in January 2018. This increase in impaired advances could indicate that the sector is starting to experience increased risk in its loan portfolios. The marked month-on-month increase in January of almost 9% and the related 21% increase in total credit impairments (month on month) was largely due to the implementation of International Financial Reporting Standard 9 (IFRS 9)¹¹ (Figure 13) and should not necessarily be interpreted as a deterioration in the quality of the loans portfolio during this period.

Credit default ratios¹² remained largely unchanged month on month to January 2018 (Figure 14). An analysis of the default ratios (i.e. defaulted loans recorded on the sector's loan portfolios) indicate that there was no increase in reported defaulted exposures in January 2018. As mentioned above, it would appear that the increase in impaired advances is rather related to the implementation of the more forward-looking recognition of credit impairments (in terms of the IFRS 9 requirements) than actual defaults. The total corporate default ratio declined from 1.3% in January 2017 to 1.1% in January 2018, mainly as a result of a R1.3 billion decline in corporate defaults. The sector's total retail default ratio dropped marginally from 4.8% in January 2017 to 4.7% in January 2018, largely as a result of an increase in total retail exposure. Total retail default exposures increased year on year by R2.4 billion to January 2018.

The declining trend in profitability could impact capital accumulation.

The declining trend in the profitability of banks noted in the second edition of the 2017 *Financial Stability Review* continued for the six months to January 2018. A decline in profitability could eventually impact the accumulation of capital. Recent trends indicate only a marginal decrease in profitability despite a challenging domestic economic environment over this period. Since February 2017, the sector's profitability as measured by the return-on-equity ratio has declined, but only marginally, from 17.4% in February 2017 to 16.0% in January 2018.

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

11 See the discussion on International Financial Reporting Standard 9 (IFRS 9) in the latter half of this review.

12 Default credit exposures are reported by the six banks that are authorised to use the internal ratings-based approach to calculate their minimum regulatory capital related to credit risk.

Nevertheless, profit after tax still increased by 7.6% year on year in January 2018, mainly due to a decline in non-trading and capital items (specifically goodwill) combined with increased non-interest income (specifically service charge income) and interest income from 'other loans and advances'. However, the cost-to-income ratio (also known as the efficiency ratio) deteriorated from 55.2% in February 2017 to 56.7% in January 2018, mainly as a result of the average growth in operating expenses (14.9%) exceeding the average growth in operating income (6.6%).

The liquidity coverage ratio increased due to the rise in the level of high-quality liquid assets.

Managing liquidity – that is, managing medium- and long-term credit extension given shorter-dated sources of funding – is critical to the viability of a bank. The banking sector’s liquidity continued to increase for the six months to January 2018. The liquidity coverage ratio (LCR)¹³ increased from 116.7% in February 2017 to 120.3% in January 2018 due to a 12% year-on-year increase in the level of high-quality liquid assets (HQLA)¹⁴ over this period.

Government debt holdings expose banks to changes in foreign investor sentiment.

The sector’s holdings of HQLA increased substantially following the introduction of the LCR on 1 January 2015 (Figure 15). Rand-denominated debt securities issued by the government and the SARB constituted the majority of the sector’s HQLAs. Higher HQLA holdings strengthen the sector’s robustness to short-term liquidity demands but potentially expose the sector to other types of risk. For example, the significant holdings of these debt securities increase the sector’s sensitivity to changes in government’s bond yields due to, for example, changes in foreign investor sentiment and changes in sentiment towards emerging markets.¹⁵

Other risk events

Specific risk events experienced are unlikely to result in financial instability.

In December 2017, following the announcement of an investigation into accounting irregularities and the resignation of the Chief Executive Officer, Steinhoff International Holdings’

Figure 13 Impaired advances and credit impairments

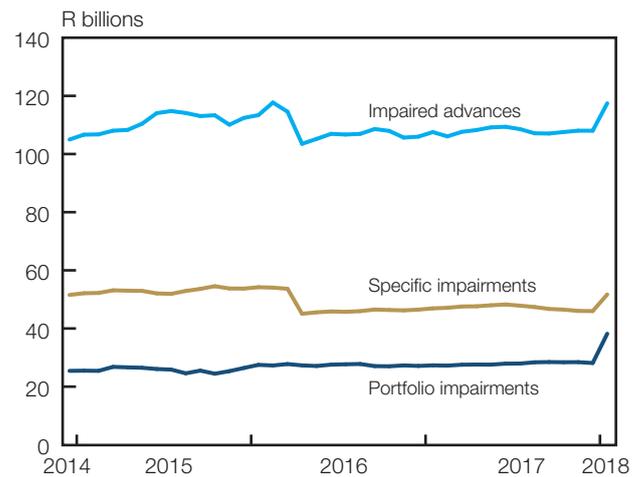


Figure 14 Default credit ratios

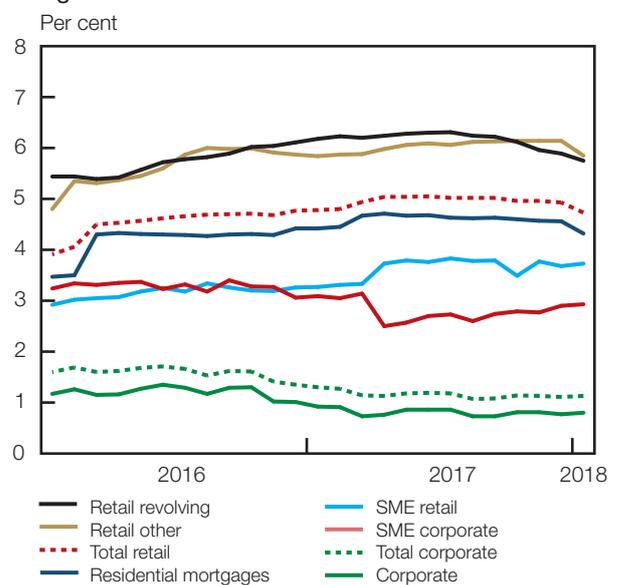
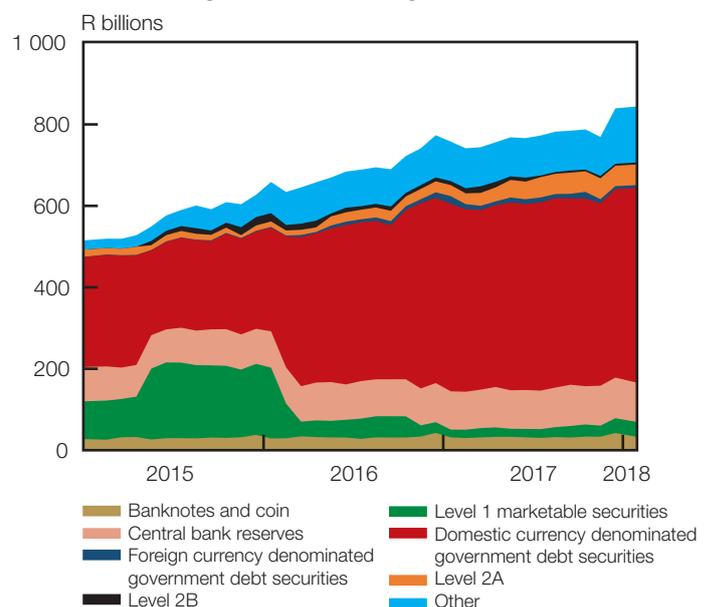


Figure 15 Banks’ HQLA, including exposure to government debt guarantees



13 Basel III introduced a liquidity coverage ratio which is designed to promote the short-term resilience of the liquidity risk profile of banks.

14 Regulation 26(12)(a) of the Regulations relating to Banks set out that high-quality liquid assets are unencumbered assets that can be converted into cash at limited, or no loss of, value in order to meet a bank’s expected total net cash outflows and/or any related liquidity needs during a 30-day period. Also see the Bank for International Settlements’ Basel Committee on Banking Supervision document titled *Basel III: the liquidity coverage ratio and liquidity risk monitoring tools* issued in January 2013.

15 The impact of actual and potential sovereign credit rating downgrades was discussed in both editions of the *Financial Stability Review* issued in 2017. Fitch Ratings and Standard & Poor’s currently rate South Africa’s long-term foreign currency credit rating as sub-investment grade. Moody’s Investors Service currently rates South Africa’s credit rating as investment grade, with a stable outlook.

equity price declined by more than 80%. This event resulted in a short-term liquidity crisis for the group. To date, the group has taken various actions to stabilise the impact of the event on its finances and operations in the medium term. Any potential financial stability implications arising from this event would most likely be as a result of a default on its debt exposure. Such a default could cause losses for banks, lenders and investors. Developments relating to this event are continually monitored.

Since December 2017, an increase in the volatility of selected equities listed on the JSE has been observed. The volatility was mainly a result of a ‘short-selling’ strategy not commonly used in South African financial markets. Common traits of this type of short selling include influencing market participants’ perceptions, which includes the extensive use of social media platforms, sensationalist language and, potentially, an ongoing campaign against the targeted entity. This type of short selling has the potential to create financial instability if the targeted company is a deposit-taking institution (e.g. Capitec Bank in this case) and the short-selling campaign can result in a negative feedback loop between declining investor confidence (as reflected in a decline in the equity price of the targeted institution) and a loss of depositors’ confidence in the targeted deposit-taking institution (as reflected in a decline in deposits or a ‘run’ on the bank). The negative feedback loop can exacerbate the circumstances, even if the trigger event was based on misleading information. In this way, this type of short selling has the potential of becoming a ‘systemic event’. The occurrence of this short-selling strategy in early 2018 was sufficiently addressed by a statement issued by the SARB and through suitable responses by Capitec Bank itself to diffuse the issue and protect depositors’ confidence in the banking sector.

On 11 March 2018, VBS Mutual Bank was placed under curatorship in order to maintain the continued functioning of the bank and to promote the safety of depositors’ funds. These actions were deemed necessary to, among other reasons, support depositors’ confidence and trust in the South African banking system.

Figure 16 Distribution of financial assets between financial intermediaries in South Africa

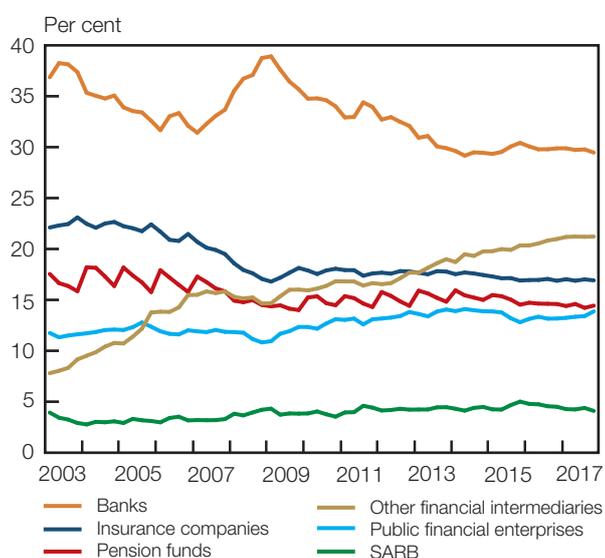
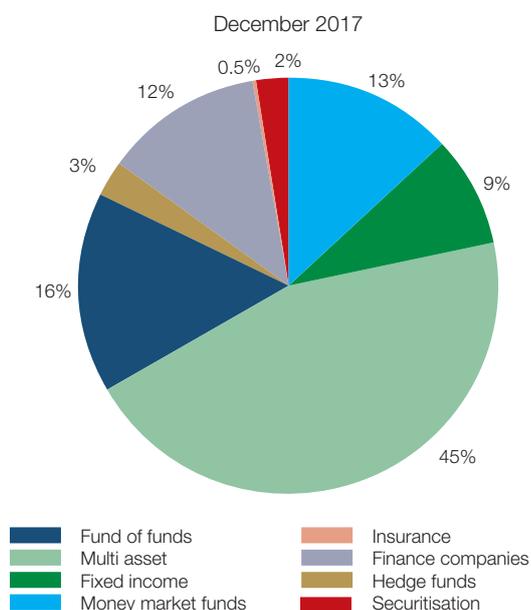


Figure 17 Narrow measure of shadow banking



Non-bank financial institutions

Other financial intermediaries

Banks’ share of financial assets decreased while that of other financial intermediaries increased.

In line with global outcomes (see Box 2), banks’ share of financial assets has decreased in South Africa since the global financial crisis (Figure 16) but has remained relatively stable at around 30% since 2015. The share of financial assets held by other financial intermediaries (OFIs) in South Africa has increased consistently since the global financial crisis and amounted to 21% in September 2017. Pension funds and insurance companies hold a relatively larger share of total financial assets, with combined financial assets of 31%.

Shadow-banking entities or activities comprise money market funds, multi-asset funds, fixed-income funds, hedge funds, fund of funds, participation bond schemes, finance companies and securitisation schemes. Similar to the global narrow measure, pooled investment funds made up the largest portion

of the shadow-banking measure in South Africa (Figure 17), and amounted to 83% of the narrow measure in the final quarter of 2017.

Funding creates high interconnectedness between banks and OFIs in South Africa.

While OFIs' exposures to banks varies substantially across jurisdictions, when compared to the banking sectors in other countries, South Africa's banking sector receives a relatively large share of its funding from OFIs (Figure 18). In South Africa the OFIs that have exposure to banks, or then invest in banks' assets, include money market funds and other investment funds as well as finance companies.

Pension and provident funds

The asset allocation of pension funds remained mostly unchanged with a high exposure to bonds that could be at risk from a credit rating downgrade.

During the third quarter of 2017, the assets of pension and provident funds (including both official and private self-administered funds) grew by an annual rate of 6.2%, up from 1.8% in the previous quarter (Figure 19). Measured in relation to the size of the domestic economy, the assets of pension funds constituted about 73.7% of gross domestic product (GDP). Official pension funds continued to increase their holdings of fixed-interest securities to R675.6 billion during the fourth quarter of 2017, representing growth of 4.7% in the year to December 2017.

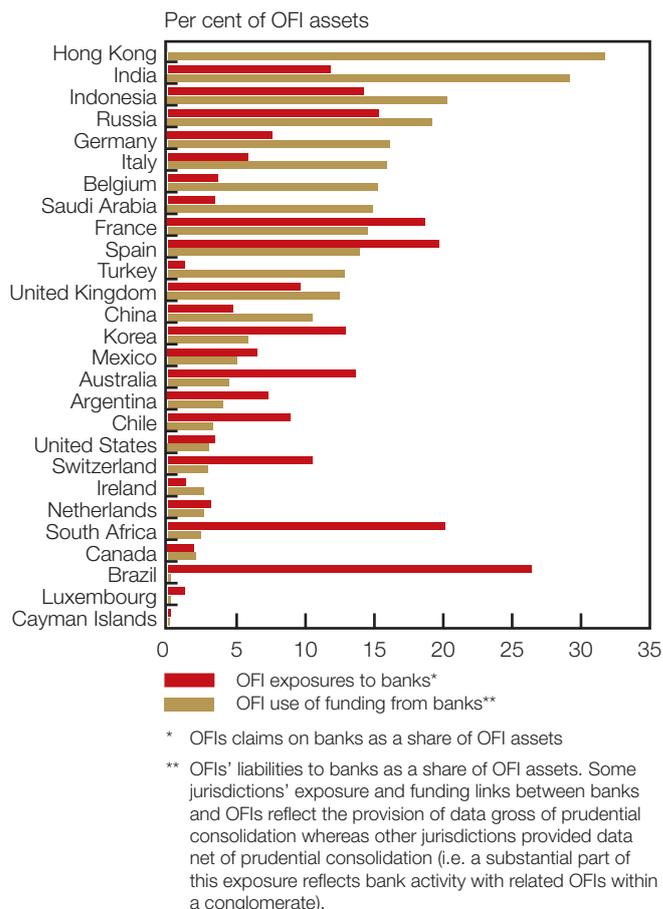
Because of the size of their bond holdings, pension funds could be subject to the same risks faced by banks in the case of a sovereign credit rating downgrade. However, the large exposure to this asset class does not present a financial stability risk as pension funds normally hold these bonds to maturity. Additionally, since the assets are 'marked to market', adjustments are also made to the liability side of the balance sheets of defined contribution schemes. The investments of official pension funds in the domestic equity market increased by 20.2% to R1 126.2 billion over the same period. During the third quarter of 2017, private self-administered pension funds also increased their investment in fixed-interest securities (R366.3 billion) and equities (R556.7 billion).

Insurance sector

Subdued economic activity contributed to a decline in growth in premium income.

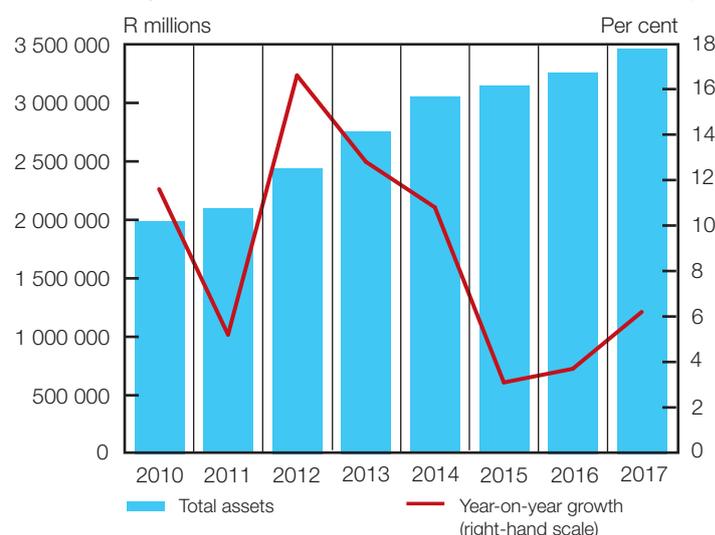
The weak macroeconomic environment has impacted negatively on the insurance industry, as reflected in the decline in premium income growth since 2012 (Figure 20). A similar trend can be noted in the assets and liabilities of the insurance industry, which is a reflection of the large portion of 'pure linked' business¹⁶ that is underwritten by long-term insurers.

Figure 18 Interconnectedness of OFIs with banks as at the end of 2016



Source: FSB Global Shadow Banking Monitoring Report 2017

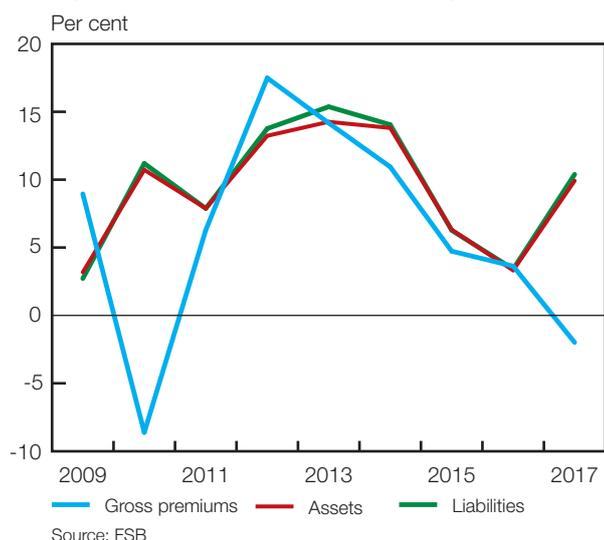
Figure 19 Total assets of the pension fund industry



Source: FSB

¹⁶ Linked business is mainly investment business. It is business where the policyholders are exposed to the investment risks. The liabilities always equal the assets.

Figure 20 Growth indicators of long-term insurers

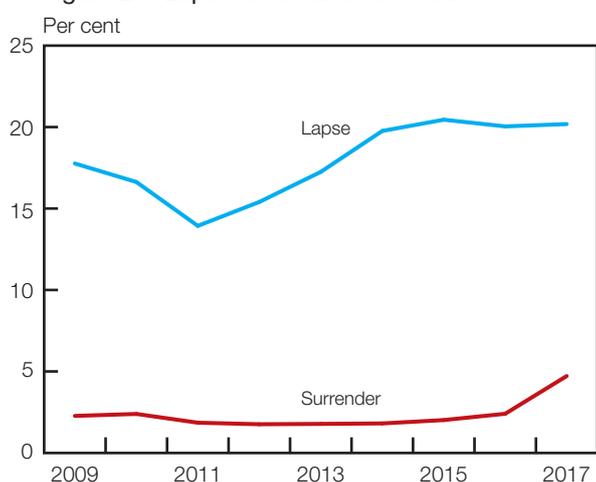


The sovereign credit rating downgrades in 2017 have weakened the credit quality of the investments of insurers that hold most of their assets in South Africa. Nevertheless, insurers have managed to navigate through subdued economic growth, and low investor and household confidence in South Africa.

Stress in the insurance sector is reflected in increasing surrenders and lower profitability.

An increase in the number of surrenders and lapses is usually a first indication that policyholders are no longer able to service policies. Increased surrenders and lapses could have a negative impact on the profitability of a long-term insurer as the costs associated with entering into a policy is incurred upfront and recovered over the lifetime of the policy. Figure 21 indicates the impact of the macroeconomic conditions on the long-term insurance industry. Despite the weak economic environment, the assets of the long-term insurance industry continued to increase throughout the review period and comprised about 61% of GDP.

Figure 21 Lapse¹ and surrender² ratios



¹ Lapse ratio: Number of policies lapsed as a percentage of the total number of policies in force.

² Surrender ratio: Number of policies surrendered as a percentage of the total number of policies in force.

Source: FSB

Due to the long-term nature of the liabilities of a long-term insurer, the assets are mostly invested in equities and collective investment schemes. The spread of assets of the long-term insurance industry has remained relatively stable over the past few years.

Investment income of short-term insurers contributed to earnings.

Short-term insurers do not make significant profits from their insurance business and rely on investment income for profits. Underwriting profits (Figure 22) are volatile and highly dependent on the claims ratio. In light of the recent losses relating to drought, floods and fire, it could become very challenging for the industry to maintain its underwriting results.

Short-term insurers generally tend to take risks on the liability side of their balance sheets and therefore typically invest in fairly conservative asset classes with lower risk profiles. Given the low yield environment, short-term insurers have started investing in longer duration and higher yielding assets, as shown in Table 1, which indicates a steady decline in cash holdings and an increase in investment in shares and debentures.

Table 1 Investment composition of short-term insurers

Type of asset	As at December 2015		As at December 2016		As at December 2017	
	R millions	%	R millions	%	R millions	%
Shares.....	34 031	25	35 846	26	39 005	26
Government and semi-government ...	21 379	16	24 095	17	29 061	19
Debentures and mortgages.....	1 887	1	3 279	2	7 660	5
Cash and deposits.....	50 073	37	47 433	34	50 902	33
Fixed assets.....	1 466	1	1 440	1	1 512	1
Outstanding premiums.....	10 423	8	10 796	8	12 104	8
Debtors.....	8 308	6	8 399	6	9 855	6
Other assets.....	7 797	6	7 061	5	2 400	2
Total.....	135 364	100	138 349	100	152 499	100

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

A deterioration in the penetration ratio reflects slower growth in premium income.

(i) Insurance penetration

This indicator highlights the relative importance of the insurance market to a 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 a decrease in economic growth that is not matched by a growth in insurances. In view of the fact that any change in this ratio could indicate risks building up in the system, it is necessary to monitor this ratio on a continual basis.

Figure 22 Underwriting results of primary short-term insurers

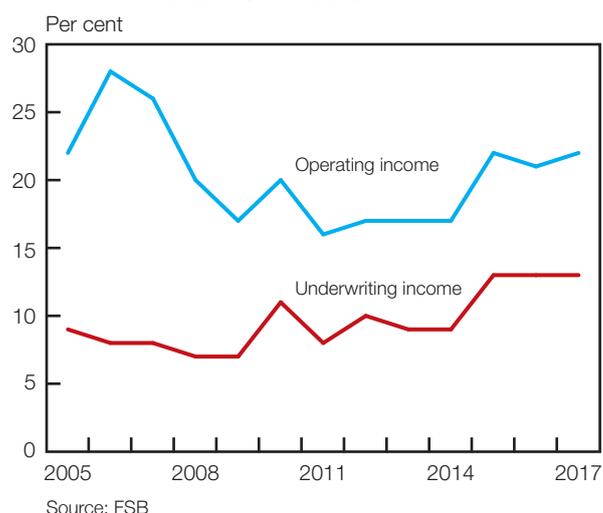


Table 2 Insurance penetration ratio

	2013	2014	2015	2016	2017
Gross written premium (R millions).....	497 682	547 794	575 069	593 032	604 492
Gross domestic product (R millions)	3 549 153	3 807 676	4 049 759	4 345 806	4 797 176
Penetration ratio	14.0%	14.4%	14.2%	13.7%	12.6%

The slight deterioration in the penetration ratio for primary¹⁷ insurers in South Africa was largely attributable to the fact that growth in gross written premiums in the long-term insurance industry slowed to 2% year on year in 2017. Growth in premiums slowed due to a lower single premium business as household incomes were influenced by the weakening economy. South African insurers appear to be increasing their efforts towards targeting the lower-income segment of the population to broaden the reach of insurance products and thereby support growth in premium income.

Although South Africa's penetration ratio dropped somewhat in 2017 compared to the growth recorded in 2016, there does not appear to be evidence of systemic risks building up in the sector.

The density ratio improved.

(ii) Insurance density

The insurance density indicator reflects the relative importance of the insurance market to the economy. A high ratio gives an indication of the extent of a possible impact any adverse development in the insurance industry could have on the economy. Declining ratios may indicate a fast growing, uninsured population. Any substantive change in this ratio could indicate risks in the system and would require further investigation.

¹⁷ A primary insurer is an insurance company that has a direct contractual relationship with the customer (private individual, company, organisation) and which accepts its risks in exchange for an insurance premium.

Table 3 Insurance density ratio

	2013	2014	2015	2016	2017
Gross written premium (R millions).....	497 682	547 794	575 069	593 032	604 492
Population (millions).....	53.15	54.00	55.20	56.02	56.72
Density ratio (premium per capita)	R 9 363.73	R 10 144.33	R 10 417.92	R 10 586.08	R 10 657.48
US dollar equivalent.....	US\$ 893	US\$ 882	US\$ 675	US\$ 579	US\$ 866

The main reason for the improvement in the density ratio (reflected in US\$ terms) in 2017 is attributable to the rand appreciation (of 11%) against the US dollar. According to Swiss Re,¹⁸ South Africa's ratio is still higher than the world average of US\$638. Despite its high density ratio, the South African insurance industry still has scope for further growth.

(iii) Reinsurance retention rate

The reinsurance retention rate indicator provides information on the share of insurance risk retained by the insurer performing the issuance. A high ratio is an indication that relatively little reinsurance and other forms of risk transfer are used. In such a case, a key question from a macroprudential perspective is whether the industry can withstand a significant downside scenario, such as a catastrophe, on its own. The ratio has more significance in the short-term insurance industry in view of the type and nature of risks underwritten.

Table 4 Reinsurance retention: short-term primary insurers

	2013	2014	2015	2016	2017
Net written premium (R millions)	67 262	70 748	81 715	82 699	88 572
Gross domestic premium (R millions).....	94 372	100 352	113 909	117 577	128 557
Reinsurance retention rate.....	71.27%	70.50%	71.74%	70.34%	68.90%

The combined ratio shows improved profitability.

(iv) Combined ratio

The combined ratio measures the underwriting profitability of the insurance sector. If the industry's combined ratio is above 100%, the sector is, on aggregate, producing an underwriting loss. This indicator is constructed for the short-term insurance industry only. Table 5 shows that the South African insurance industry is not only profitable but improved its profitability in 2017 compared to 2016.

¹⁸ Swiss Re, *Global insurance review 2017 and outlook 2018/19*, November 2017.

Table 5 Combined ratio: short-term primary insurers

	2012	2013	2014	2015	2016	2017
Claims ratio (per cent)*	59	58	60	56	57	56
Management expense ratio (per cent)**	23	23	24	23	25	25
Commission ratio (per cent)**	8	7	7	7	6	5
Combined ratio (per cent)#	90	83	83	77	87	77

* Expressed as a percentage of net earned premium

** Expressed as a percentage of net written premium during the period

Claims + commission + expenses less total investment income as a percentage of net earned premium

Concentration of long-term insurers is high and pose risks that could be systemic.

(v) Insurer concentration

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 monitored and supervised more intensely and intrusively as they could pose systemic risks to the system.

Table 6 Insurer concentration

	2013	2014	2015	2016	2017
Top five long-term insurers' assets (R millions)	1 641 588	1 936 296	1 977 916	2 007 247	2 139 630
Total assets of industry (R millions)	2 135 807	2 431 057	2 660 938	2 715 847	2 914 534
Concentration in top 5 long-term insurers	76.9%	79.7%	74.3%	73.9%	73.4%
Top five short-term insurers' gross premiums written (R millions)	44 326	51 099	50 742	56 571	60 660
Total gross written premiums of industry (R millions).....	94 372	100 352	113 909	117 577	128 557
Concentration in top five short-term insurers	46.0%	50.9%	44.6%	48.1%	47.2%

Similar to the banking industry in South Africa, concentration in the long-term insurance industry is fairly high, and the fact that the top five short-term insurers are also in the conglomerate groups of the top five long-term insurers makes the concentration even more significant. Hence, the risks emanating from the long-term insurance industry appear to be systemic in nature. The implementation of the FSR Act on 1 April 2018 will enhance conglomerate supervision of the large financial institutions.

Overall, the insurance sector in South Africa appears to be sound using these measurements, and there are no concerns from a financial stability perspective at present.

Non-financial institutions

Business confidence recovered in the first quarter of 2018

After a marginal deterioration in the fourth quarter of 2017, business confidence continued to recover in the first quarter of 2018 (Table 7). The rise in business confidence was mainly due to the improved sentiments of the country's political climate following the Leadership Conference in December 2017. All subcomponents improved, with the new vehicle dealers' confidence recording the highest increase of 20 index points supported by a rise in new passenger car sales amid lower selling-price inflation. The wholesale traders' and manufacturers' confidence indices both recorded an increase of 13 index points as a moderation in input cost inflation improved the profitability in the sectors amid higher production volumes. The current recovery is expected to continue in the second quarter of 2018; however, the slowdown in both domestic and export selling price inflation might offset the lower production cost, weighing on corporate profitability and business confidence. Given the high level of correlation between business confidence and investment, an improvement in business confidence could support corporate investment in the real economy.

Table 7 Business confidence index¹

Indices	2017				2018
	Q1	Q2	Q3	Q4	Q1
Business confidence index	40	29	35	34	45
New vehicle dealers' confidence	30	11	19	32	52
Retail traders' confidence	45	35	38	29	42
Wholesale traders' confidence	56	49	48	51	53
Building contractors' confidence	42	36	44	34	41
Manufacturers' confidence	28	16	27	24	37

¹ 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: BER, Stellenbosch University

Non-financial corporates' profitability remained weak

Corporate profitability had been persistently weak as domestic demand remained subdued amid low consumer and business confidence. Profitability since the beginning of 2016 was mainly driven by growth in the agricultural sector. In the third quarter of 2017, profitability briefly recovered, growing at 13% year on year from 7.7% year on year in the previous quarter (Table 8), as the drought conditions eased and agricultural activity was boosted. However, the strong pace of agricultural growth 'normalised' during 2017 following the drought in 2016 and water shortages in the Western Cape. These factors contributed to a decline to 7.2% year on year in the fourth quarter of 2017.

Non-financial corporates' deposit holdings increased.

Deposit holdings of non-financial corporates improved markedly in the fourth quarter 2017, supported by equitable share transfers from national government to municipalities and higher turnover related to the 'Black Friday' promotions in the retail sector. In line with the growth in deposits, gross fixed capital formation continued to recover in the fourth quarter of 2017 following a contraction in the second quarter.

Credit extended to corporates slowed amid weak domestic demand and low business confidence in an environment of heightened political uncertainty at the time. Conversely, the Experian Business Debt Index¹⁹ improved to 0.443 index points in the fourth quarter of 2017 from 0.059 index points in the third quarter of 2017, indicating that corporates' debt conditions were improving.

Table 8 Selected indicators for the non-financial corporate sector

Annual percentage change, unless indicated otherwise

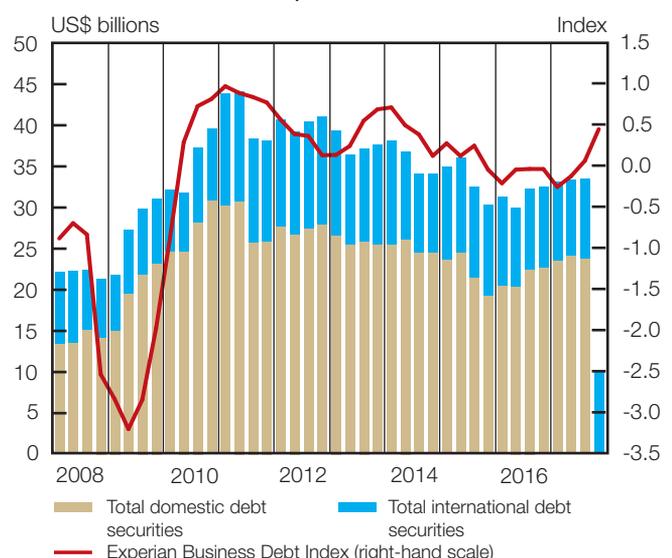
	2016		2017		
	Q4	Q1	Q2	Q3	Q4
Bank credit granted [*]	10.7	8.9	9.0	7.3	6.5
Gross fixed capital formation ^{**}	2.8	2.1	1.0	2.0	3.5
Credit as a percentage of GDP.....	49.8	51.6	51.4	52.1	52.0
Credit as a percentage of annualised profits ^{***}	249.8	235.6	216.9	231.0	248.2
Net operating surplus ^{****}	12.9	20.4	7.7	13.0	7.2
Deposits	3.9	0.7	0.7	3.1	5.4

- * Bank credit to the corporate sector includes instalment sale and leasing finance, mortgage advances, overdrafts, credit card debtors, and other loans and advances
- ** At current prices (seasonally adjusted)
- *** Bank credit to the corporate sector and net operating surpluses of corporations were used as proxies for corporate debt and corporate profits respectively
- **** Gross operating surplus minus depreciation (seasonally adjusted rates)

Non-financial corporates' increase in foreign currency-denominated debt exposes them to currency and interest rate risk

Foreign currency-denominated debt securities issued by South African corporates could be a cause for concern for financial stability given the elevated probability of further interest rate increases in advanced economies. The value of foreign currency-denominated debt securities issued by corporates stood at US\$10.1 billion in the fourth quarter of 2017 compared with US\$9.83 billion in the previous quarter (Figure 23). US dollar-denominated debt continued to be the largest portion of foreign currency-denominated debt by corporates at 69.4%, followed by euro-denominated debt (15%).

Figure 23 Non-financial corporates' domestic debt securities, international debt securities and the Experian Business Debt Index*

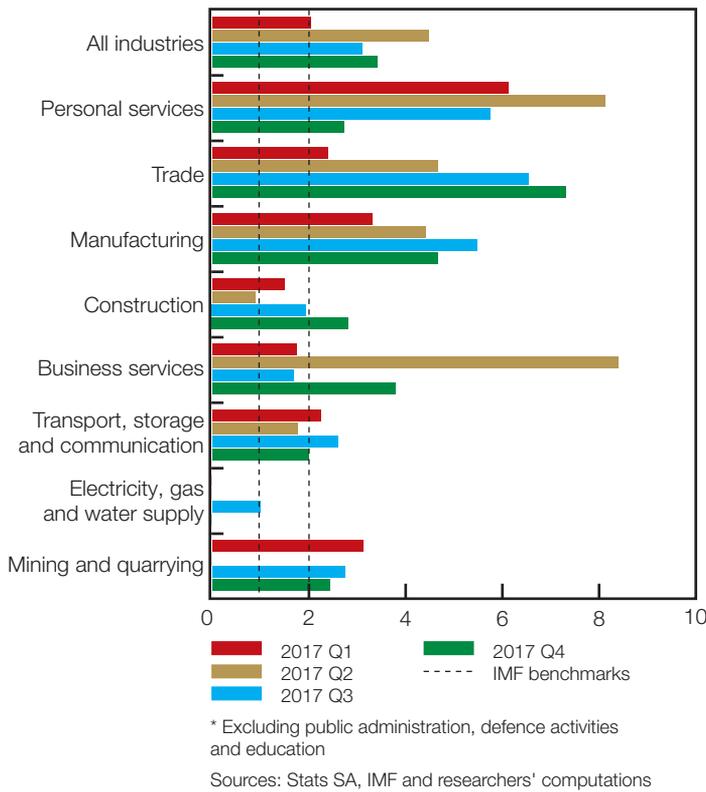


* For the Experian Business Debt Index 0 is the base, >0 indicates improving business conditions and <0 shows deteriorating business conditions.

Sources: BIS debt securities statistics and Econometrix

19 The Experian Business Debt Index (BDI) is a measure of the debt stress experienced by domestic corporates. For the BDI, 0 is the base, >0 indicates improving business conditions and <0 shows deteriorating business conditions.

Figure 24 Non-financial corporate sector: aggregate interest coverage ratio*



The non-financial corporate sector's ability to generate cash to service its debt improved marginally.

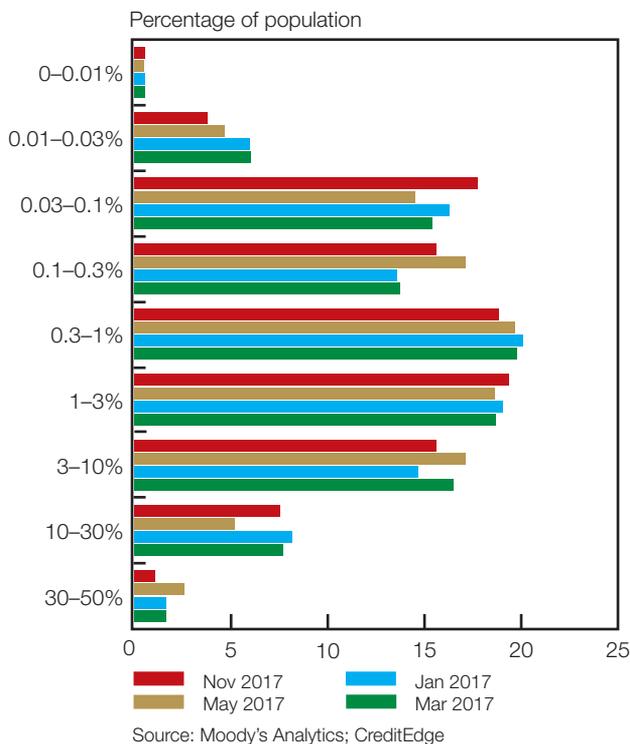
The interest coverage ratio (ICR) is an estimation of a firm's ability to generate sufficient cash flows to finance its interest expenses on outstanding debt by dividing its earnings before interest and taxes (EBIT) by its annual interest expenses. According to the IMF, firms classified as 'weak' are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

The ICR experienced a large increase in the second quarter of 2017 due to the sales of assets and investments in the business sector. The measure then normalised from 3.1 in the third quarter of 2017 before improving to 3.4 in the fourth quarter, driven by a rise in EBIT in most sectors. Most industries had an ICR above 2, indicating that the sectors managed to generate enough cash over the previous year to service their debt. The electricity, gas and water supply industry, however, continued to record a low ICR. The sector had previously recorded an ICR of 1.3 in the third quarter of 2017, the highest ICR since the last quarter of 2016, mainly due to an improvement in EBIT for the sector. However, the sector remained weak, recording an ICR of less than 1 in the fourth quarter (Figure 24).

South African non-financial corporates remain under pressure on default concerns.

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, it is expected that over 70% of South African corporates could record EDFs below 3% by the end of March 2018 (Figure 25), implying that there would be a less than 3% probability that these corporates would be unable to honour their debt obligations in the following year. Out of the 184 South African companies included in the portfolio, 139 have an EDF of 3% or less. However, the distribution of firms' EDFs has shifted since November 2016, with a higher percentage of firms with higher probabilities of default. Of particular concern is that three non-financial corporates have recorded EDFs of higher than 30%.

Figure 25 Expected default frequency distribution of non-financial corporates in South African



Non-financial corporates recorded an average one-year EDF of 3.1% as at 7 March 2018.²⁰ This implies a debt rating for domestic non-financial corporates of Caa2 (based on the correlation between implied ratings by Standard & Poor's (S&P) and the EDF credit measures), which is lower than the Caa1 reported in the previous *Financial Stability Review*, indicating the high credit risk profile of non-financial corporates.

Households

The disposable income of households is increasing and households' balance sheets are recovering.

Highly indebted households are a cause for concern as they are particularly sensitive to changes in an economy. High levels of debt could decrease households' ability to service their debt, adding to the probability of increased defaults. Should

²⁰ Data are available and calculated on a daily basis.

households default on their debt, it could cause distress to banks as the main lenders to the household sector and, ultimately, lead to financial instability.

Table 9 Selected indicators for the household sector

Annual percentage change, unless indicated otherwise

	2016	2017			
	Q4	Q1	Q2	Q3	Q4
Disposable income	8.5	7.8	7.3	7.2	7.3
Financial assets	4.5	3.7	2.8	7.1	12.3
Total assets	4.7	4.2	3.6	6.5	10.2
Net wealth*	4.9	4.3	3.6	6.8	11.3
Consumption expenditure	0.9	1.6	2.3	2.3	2.7
Consumption expenditure to GDP	59.7	59.9	59.3	59.2	59.4
Capital gearing**	16.6	16.4	16.4	16.2	15.8
Credit extension	0.7	0.6	2.9	3.3	3.8
Mortgage advances extended to households	2.9	2.9	3.0	2.9	3.4
Mortgage debt as a percentage of household disposable income	35.7	35.7	35.2	34.9	34.4
Savings as a percentage of disposable income	0.1	0.2	0.3	0.4	0.2
Debt as a percentage of disposable income	72.7	72.7	71.9	72.0	71.2
Debt to GDP	43.4	43.6	42.8	42.8	42.3
Debt-service cost of household debt	8.1	4.6	3.3	3.7	3.9
Debt-service cost as a percentage of disposable income	9.4	9.4	9.3	9.2	9.1
Debt	3.4	3.9	3.4	4.9	5.0
FNB Household Debt-Service Risk Index	5.1	5.2	5.3	5.4	n/a

* Household net wealth is defined as total assets of households less total financial liabilities

** 'Capital gearing' refers to household debt as a percentage of the total assets of households. Data are preliminary

Sources: SARB and FNB

In the fourth quarter of 2017, households' disposable income improved marginally compared with the previous quarter. This was in line with the BankservAfrica Disposable Salary Index which indicated that seasonally adjusted take-home pay increased by 1.2% year on year in January 2017²¹ from 0.5% in October. Low-income earners saw a higher increase in take-home pay than high-income earners, as the increase in the tax burden weighed more on high-income earnings. Since March 2017, disposable income has generally been increasing at a higher rate than inflation, indicating a possible recovery in households' balance sheets. Consumption expenditure accelerated from 2.3% year on year in the third quarter of 2017 to 2.7% year on year in the fourth quarter. Household wealth improved from 6.8% year on year in the third quarter to 11.3% year on year in the fourth quarter.

According to the *South African Household Wealth Index*,²² the real value of households' net wealth was also higher compared to a year ago, mainly due to the rise in the values of financial assets, while liabilities grew at a slower pace. A rise in households' financial assets, specifically investments in retirement funds, was driven by the performance of listed shares.

²¹ BankservAfrica Disposable Salary Index, January 2017.

²² Momentum and Unisa, *Summary: South African Household Wealth Index Q3 2017*.

Figure 26 Composition of household debt

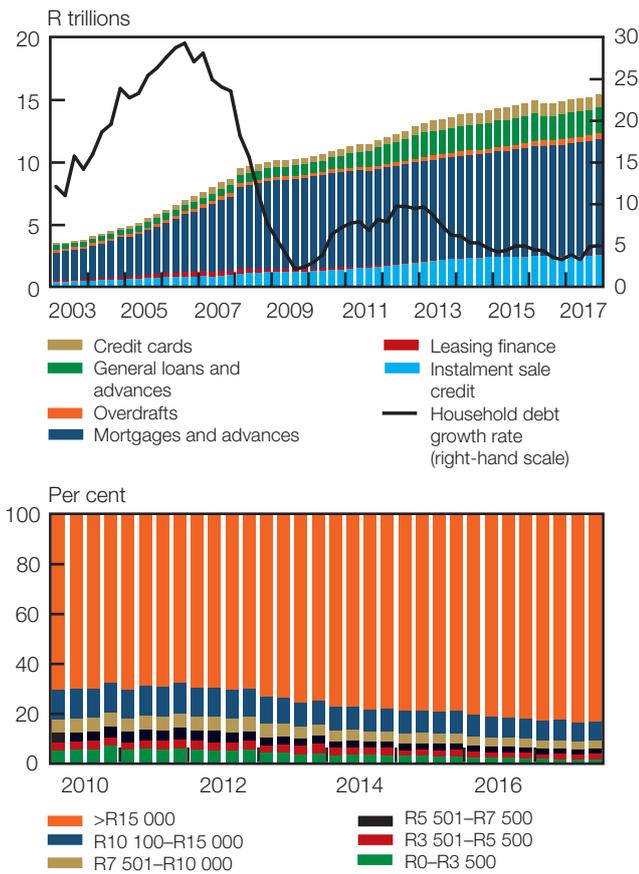
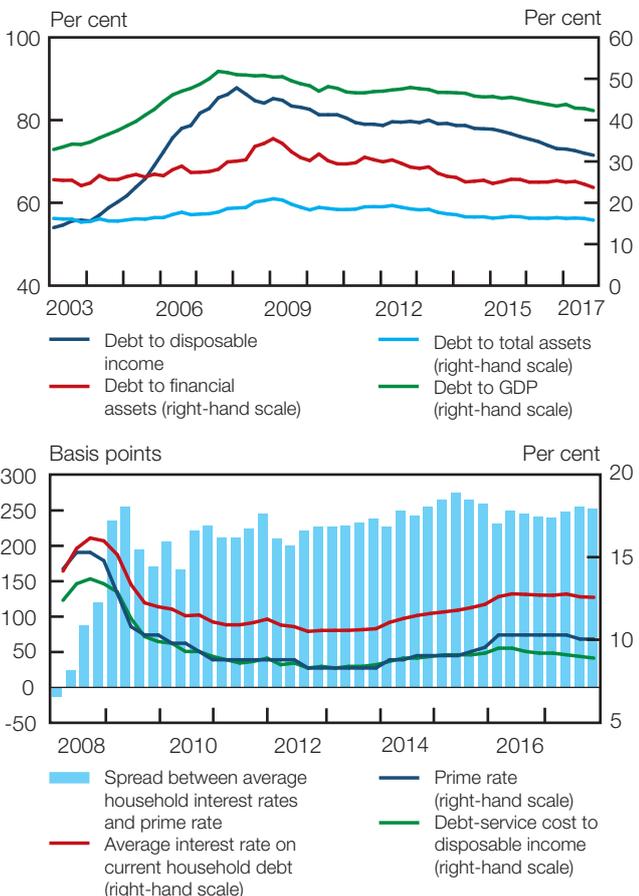


Figure 27 Household debt cost and affordability



Debt growth was relatively subdued, although low-income earners will remain exposed should interest rates be increased in the future.

Total household debt picked up slightly in 2017 compared to the year before but remained relatively subdued compared with the period prior to 2015. Growth in most categories of household debt remained unchanged, except for instalment sale credit which was boosted by increased spending on motor vehicles. Consumers with a relatively higher gross monthly income (R15 000 and more per month) still held a larger share of total credit granted (Figure 26), with the lowest income earners (lower than R3 500 per month) only making up about 2% of total credit granted in the third quarter of 2017 (the latest available data). However, the category of credit mostly granted to high-income earners was ‘secured credit and mortgage loans’, while credit granted to lower-income earners was mainly for general credit facilities and unsecured credit. The interest premium on unsecured loans tends to be higher than secured loans, making consumers more vulnerable to interest rate increases to the extent that these loans are granted with variable interest rates.

Affordability of household debt improved as credit spreads decreased.

The affordability of household debt continued to improve (Figure 27). In this regard, the debt-to-income ratio dropped from 72% in the third quarter of 2017 to 71.5% in the fourth quarter, as household debt grew at a slower pace than disposable income. In addition, because of the improvement in the value of financial assets and lower increase in debt, the debt-to-financial assets ratio decreased from 24.5% in the third quarter of 2017 to 23.7% in the fourth quarter. The number of consumers with impaired credit records continued to decline.

The year-on-year growth in the debt-service cost of households picked up slightly to 3.9% year on year in the fourth quarter of 2017 compared with 3.7% in the third quarter. Of significance for future debt-service cost is the introduction of the Affordability Assessment Regulations in mid-2016 as part of the National Credit Amendment Act 19 of 2014. These regulations require more stringent standards to be incorporated when extending credit. This Act introduced affordability assessment regulations with the aim of assisting credit providers in effectively assessing consumers’ ability to repay credit and to also protect consumers from reckless lending. Hence, consumers with better credit ratings are more likely to receive credit. The spread between the average interest rates paid by South African households and the prime lending rate declined in the fourth quarter of 2017, while the credit application rejection rate rose to 51.39% in the third quarter of 2017 from 50.76% in the previous quarter.²³ This could imply that financial institutions still regard households as financially vulnerable.

A marginal improvement in consumer confidence was recorded by the First National Bank/Bureau for Economic Research (FNB/BER) Consumer Confidence Index in the final quarter of 2017, from -9 index points in the third quarter of 2017

²³ National Credit Regulator. Consumer Credit Market Report, November 2017.

to -8 index points in the fourth quarter (Figure 28). This was mainly due to an improvement in consumers' outlook of South Africa's expected economic performance in 2018, based on a recovery in domestic economic growth in the second and third quarters of 2017.

The financial position of households' sub-index, however, declined by 2 index points. A breakdown of the survey results per household income group indicates that the decline in the financial outlook was mostly due to a deterioration in the financial outlook of low-income earners. The financial outlook index for low-income households fell from -2 to -13 – its lowest reading in two and a half years. For middle-income households, the sub-index declined by 4 index points, while it rose by 9 index points for high-income earners. Although food price inflation moderated in 2017, the actual price levels of basic necessities remained high. The direct impact of the rise in value added tax (VAT) in April 2018 on households' financial position will need to be assessed against the indirect positive effects thereof.

The MBD Credit Solutions/Bureau of Market Research (MBD/BMR) Consumer Financial Vulnerability Index), however, continued to deteriorate from 47.0 index points in the second quarter of 2017 to 48.04 index points in the third quarter. All sub-indices, namely savings, income, expenditure and debt servicing, declined in the third quarter. The decline in the index can largely be attributed to a decline in the savings and debt servicing vulnerability scores, as the majority of consumers still find it difficult to adequately cover their expenses (mainly debt and food) with income earned.

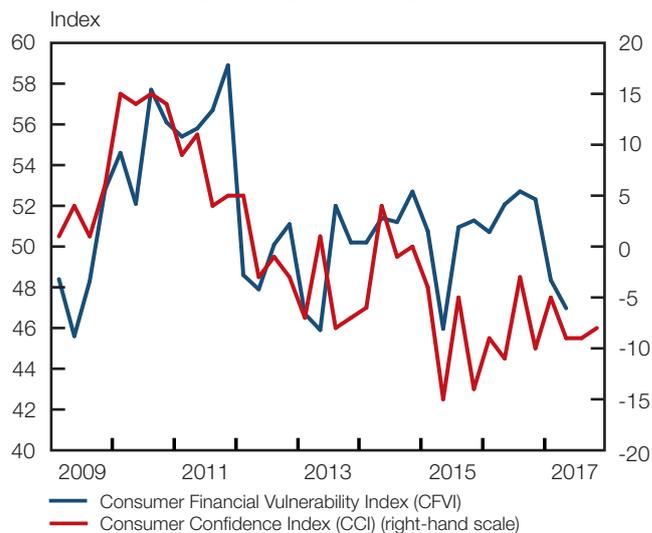
Residential real estate

House price growth has become more subdued.

Housing market trends and developments are important from a financial stability perspective as they serve as indicators of financial system health and confidence in the economy. Furthermore, not only does residential housing make up approximately 21% of households' total assets, but mortgage advances – the largest component of banks' assets – account for almost 30% of total bank credit. Therefore, house price movements impact the balance sheets of both households and banks.

The slowdown in the growth of nominal house prices that began in the second half of 2015 became more pronounced in early 2018 (Figure 29). The persistent moderation in house price growth was driven mainly by the subdued domestic economic conditions and outlook as reflected in the consumer and business confidence levels, and constrained household finances. Mortgage loan growth has been persistently low since 2011, with only intermittent increases, which also contributed to moderate house price growth. Generally, real house price growth has been negative since 2015. However, FNB's²⁴ survey indicated improved national sentiment early in 2018, combined with expectations of stable interest rates

Figure 28 Consumer Financial Vulnerability Index* and Consumer Confidence Index**

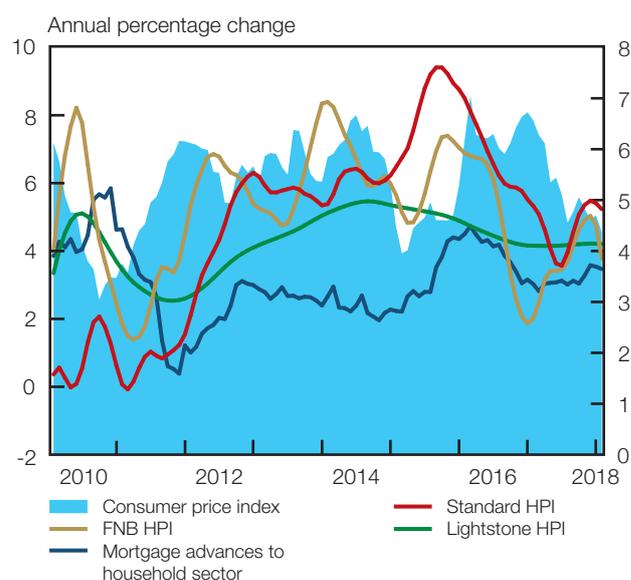


* 0–20 means 'financially very vulnerable', 20–39.9 'financially vulnerable', 40–49.9 'financially very exposed', 50–59.9 'financially mildly exposed', 60–79.9 'financially secure' and 80–100 'financially very secure'.

** The CCI is expressed as a net balance between optimistic and pessimistic consumers. According to the Bureau for Economic Research at Stellenbosch University, the index can vary between -100 for 'extreme pessimism' and 100 for 'extreme optimism', with 0 being 'neutral'.

Sources: MBD Credit Solutions, Bureau of Market Research (Unisa), FNB/BER (Stellenbosch University)

Figure 29 House price indices, mortgage advances and inflation



Sources: Stats SA, Standard Bank, FNB, Lightstone Property and SARB

24 First National Bank Property Barometer, 1 February 2018.

Figure 30 Government debt holdings by domestic financial institutions

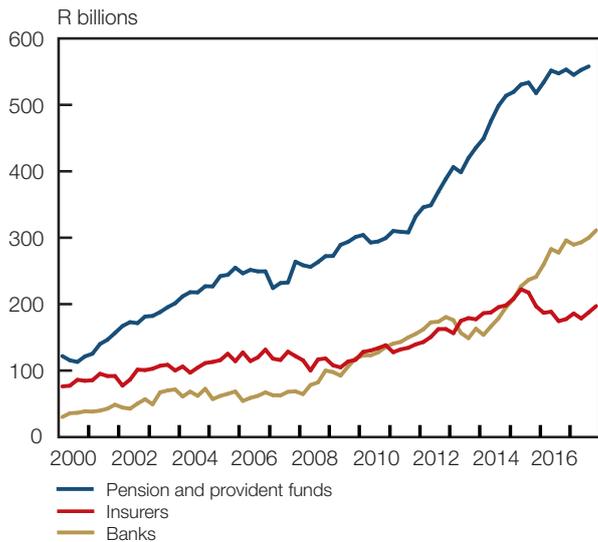
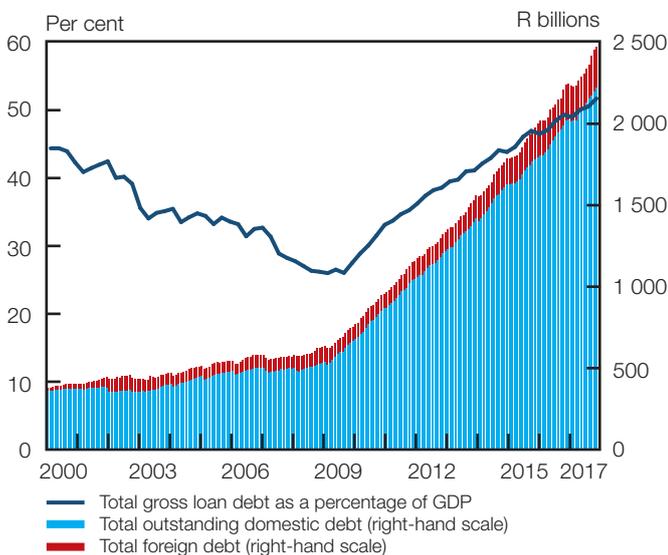


Figure 31 Loan debt of national government



in 2018 and improved economic growth prospects, all of which could result in stronger future average house prices.

The FNB/BER Building Confidence Index,²⁵ however, fell to 31 index points in the fourth quarter of 2017. This marks the lowest confidence level recorded since the third quarter of 2012. Despite the drop in confidence, activity was, on balance, broadly unchanged compared to the third quarter of 2017, although it remained weak. Furthermore, the number of building plans approved for residential buildings in 2017 decreased by 2.7% year on year.²⁶

Government finances

The sustainability of government finances directly impacts on its debt holders.

The sustainability of government finances directly impacts on its debt holders, which in South Africa's case are mainly pension and provident funds, insurers and banks (Figure 30), and thus remain a focal point for financial stability analysis. Fiscal sustainability has been raised as a determining factor by the rating agencies for sovereign credit rating assessments.

Government debt has been cited as one of the major concerns of credit rating agencies for further sovereign credit rating assessments. It appears that rating agencies interpreted the Budget, delivered in February 2018, positively, and are satisfied with the measures of fiscal consolidation and debt stabilisation that were taken. Government debt has continued its upward trend, increasing to R2 467 billion in December 2017 (Figure 31), although the annual rate at which government debt increased has been moderating since the first half of 2010. Of this debt, about 90% is rand denominated and about 10% is foreign currency denominated. Government debt as a percentage of GDP dropped marginally to 53% in December 2017, down from 53.2% in September. The government debt outlook has also improved since the release of the *Medium Term Budget Policy Statement (MTBPS)* in October 2017, and is expected to stabilise at around 56.2% of GDP by 2022/23 (Figure 32). This level is below the 70% level that the IMF identified in a debt sustainability analysis as a high-risk threshold.²⁷ According to National Treasury, the budget deficit is projected to narrow from 4.3% for 2017/18 to 3.5% by 2020/21.

The outlook for government debt has stabilised.

Both S&P and Fitch Ratings (Fitch) downgraded South Africa's sovereign credit rating on foreign currency-denominated debt to sub-investment grade in late 2017, while Moody's kept

25 The First National Bank (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, and retail and wholesale opinion surveys undertaken by the Bureau for Economic Research (BER) at Stellenbosch University. See the FNB/BER Building Confidence Index, Johannesburg: FNB/BER, 17 September 2014.

26 Statistics South Africa, 'Selected building statistics of the private sector as reported by local government institutions', June 2015.

27 International Monetary Fund, *IMF Country Report No.16/217* – South Africa, July 2016.

South Africa's rating unchanged at investment grade and changed the outlook from negative to stable in March 2018. Positive macroeconomic indicators, institutional changes at some state-owned enterprises (SoEs) and a well-received budget contributed to the decision by Moody's.

Governance issues at SoEs, rising contingent liabilities (Figure 33) and associated liquidity shortfalls could put additional pressure on government finances through the increased usage of government guarantees. National Treasury stated that it would sell some government assets in its pursuit to recapitalise SoEs and to reduce its guarantees to SoEs, thus not adding to government debt. Eskom remained the biggest recipient of government guarantees at R220.8 billion during the 2017/18 financial period. The second-largest recipient of guarantees was the Road Accident Fund (R189.2 billion). Since the Budget Review in February 2018, Eskom has secured R20 billion in short-term credit funding through a group of local and foreign banks as well as R5 billion from the Public Investment Corporation (which has since been repaid) which should provide sufficient short-term liquidity to Eskom to continue with its regular funding arrangements.

Government's exposure has increased markedly as SoEs started drawing on these guarantees.

Although the amount of guarantees that were made available over the past three fiscal years remained unchanged (Figure 34), government's exposure has increased markedly, from 54.4% in the 2016/17 fiscal year to 64.5% in 2017/18, as SoEs drew on these guarantees.

Financial stability could be impacted by the inability of SOEs to roll over debt. Should SoEs fail to roll over debt, the government would be liable and might not be able to honour such debt. This could mean that government would have to borrow more, which would result in a deteriorating balance sheet of government and possible further credit rating downgrades. When comparing South Africa with the other BRICS countries (Brazil, Russia, India and China), the general government debt-to-GDP ratio appears to be 'average' (Figure 35). South Africa's general government debt-to-GDP ratio is estimated to stabilise from 2019 onwards.

Adequacy of foreign exchange reserves

Foreign exchange reserves is less adequate

The Guidotti ratio²⁸ (GR) increased to 1.24 in the fourth quarter of 2017 after recording a decrease during the third quarter (Figure 36). The increase can be attributed to a rise in gross gold and other foreign exchange reserves and a decrease in short-term foreign debt. Should foreign exchange market access thus be reduced suddenly, the level of the GR metric suggests that sufficient funding would be available to service short-term external debt due within the next year.

²⁸ The Guidotti-Greenspan rule states that a country's reserves should equal short-term external debt (maturity of one year or less), implying a ratio of reserves to short-term debt of 1.

Figure 32 Government debt forecasts

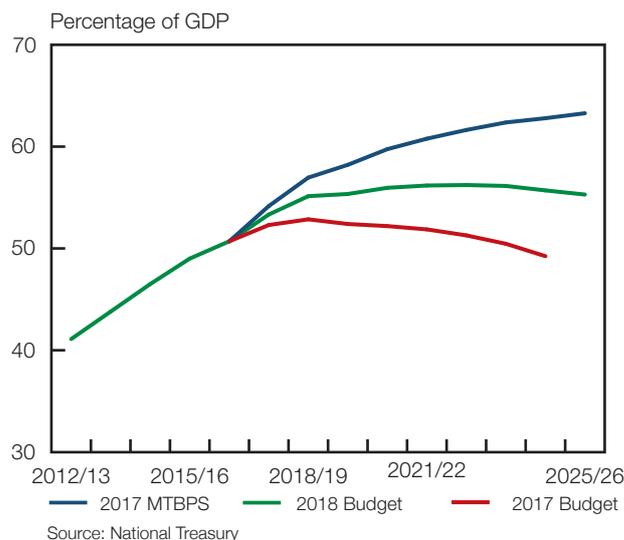


Figure 33 Contingent liabilities and guarantees*

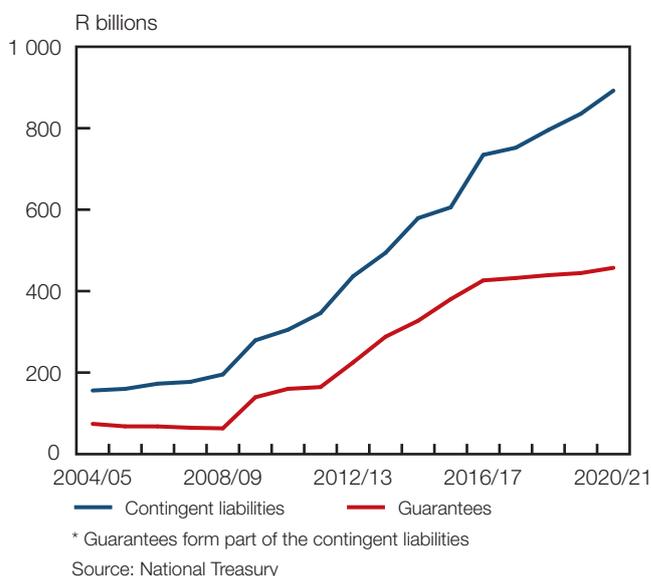


Figure 34 Guarantees for SoEs: narrowing of the gap between available facilities

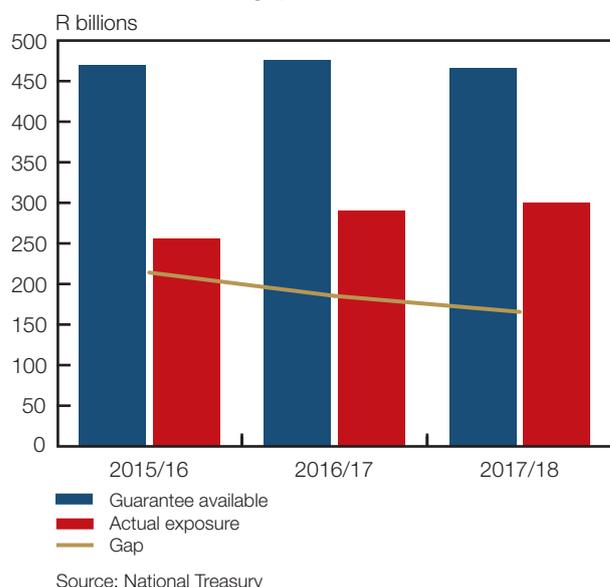
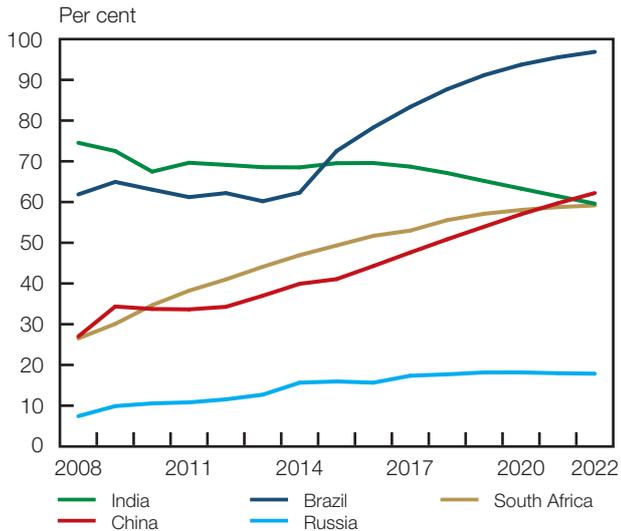


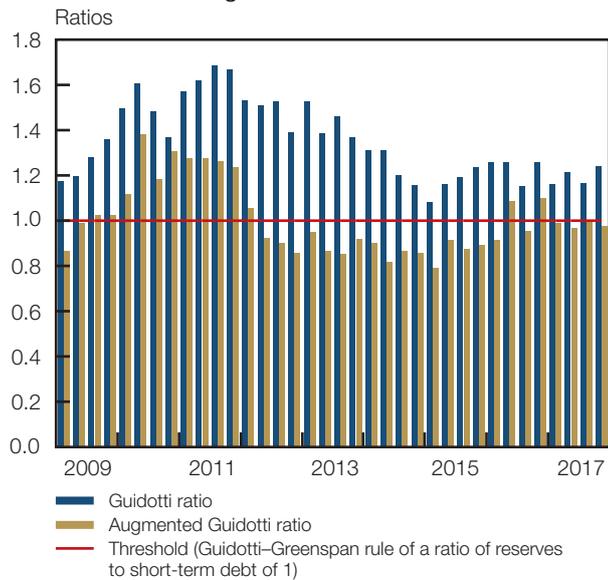
Figure 35 General government debt-to-GDP ratios of BRICS countries*



* Data after 2016 for Brazil, India, South Africa and Russia and data after 2015 for China are IMF estimates

Source: IMF

Figure 36 South Africa's gross gold and other foreign reserves



Short-term debt includes public authorities, public corporations, monetary authorities, banking sector, other sectors and direct investment.

Exchange rates are middle market rates at month end taken at 14:30pm.

Sources: SARB and IMF

A more comprehensive picture is painted by the augmented Guidotti ratio (AGR) as it takes into account the current account (as a proxy for total external financing needs). The AGR decreased from 1.00 in the third quarter of 2017 to 0.97 in the fourth quarter. This is marginally below the Guidotti–Greenspan rule level of 1, indicating that there might be a slight shortfall of 3 percentage points in funding should an unexpected capital flight situation arise. The main reason for the deterioration in the AGR is a widening of the current account deficit.

The more traditional measure for reserve adequacy, the import coverage ratio,²⁹ decreased from 4.95 months in the third quarter of 2017 to 4.86 months in the fourth quarter. A ratio above the traditional rule of thumb of reserves covering more than three months of imports means that South Africa could endure almost five months of imports should there be a sudden stop of inflows.

Since the previous edition of the *Financial Stability Review*, the official gross gold and foreign exchange reserves increased from US\$47.4 billion (June 2017) to US\$50.5 billion in January 2018. Foreign reserve holdings are important to maintain liquidity and investor confidence.

29 The import cover ratio is a simple way of scaling the level of reserves by the size and openness of the economy.

Financial stability risks and outlook

Update on financial stability risks

The SARB regularly assesses the risks to financial stability in the following 12 months, with a view to identifying and mitigating risks and vulnerabilities in the domestic financial system. A number of key scenarios regarding potential threats to financial stability are identified. These potential threats to financial stability are rated according to the likelihood of their occurrence as well as their expected impact on the domestic financial system. The risks identified are classified as ‘high’, ‘medium’ or ‘low’ in terms of the likelihood of the risk occurring and its possible impact on financial stability.

Table 10 Risk assessment matrix

Probability	Expected impact on financial stability in South Africa
Vulnerable domestic fiscal position	
Medium	High
The domestic fiscal position remains vulnerable despite measures of fiscal consolidation and debt stabilisation announced in the February 2018 Budget. Rising contingent exposures of government to state-owned enterprises (SoEs) (Eskom and Road Accident Fund) could put additional pressure on government finances.	The amount of guarantees provided by government has remained unchanged over the past three years but SoEs' exposure has increased markedly as they draw on the guarantees. The ability of SoEs to roll over debt is of concern as associated liquidity shortfalls could place additional pressure on government finances through increased usage of these government guarantees. This could result in an increase in government's borrowing requirement and increase the risk of further credit rating downgrades, which could create negative feedback loops for the banking sector and negatively impact on asset prices, economic growth and the country's fiscal position.
Persistently low GDP growth impacts on bank asset quality	
Medium	High
The continued synchronised downward phases of the South African financial and business cycles, implying that any recession could potentially be longer and deeper and also impact the banking sector in terms of higher impairments and lower asset quality.	Elevated debt levels combined with low growth in disposable income and muted corporate profitability impacting on the household and corporate sectors (higher unemployment, reduced ability to service debt) could cause a deterioration in the asset quality of banks through higher impairments. The impact of IFRS 9 on the banking sector's capital and reserves could be significantly exacerbated in such an environment.
Abrupt repricing of risk premiums triggered by a policy expectation shock	
Medium	Medium
Stronger than expected economic performances in key economies (eg. US) could trigger a policy shock and a repricing of risk premiums, particularly in overvalued markets.	The financial system becomes more vulnerable to sharp corrections should earnings and credit performance change abruptly. Weaker confidence, higher financial market volatility and/or asset price losses (exchange rates, bond yields and equities) could ensue.
Trade protectionist measures	
High	High
Rising prospects of trade protectionist measures by the US and potential retaliatory measures by affected countries.	Rising protectionism could have far-reaching consequences for global growth, inflation and asset prices. Apart from higher tariffs actually resulting in lower global exports and higher inflation, retaliation measures by affected countries could result in tariffs being imposed across different sectors. This could translate into lower global growth, while persistent trade policy uncertainty could negatively affect global asset prices.

Amplification mechanisms and contagion effects are key for the systemic risks identified in Table 10 as well as ‘other’ identified risks that are not featured in the risk assessment matrix. Some of these ‘other’ risks include global geopolitical events that flare up from time to time (e.g. North Korea, Gulf States, Brexit), political uncertainty in South Africa, and the exposure of the banking sector should the expropriation of mortgaged land without compensation take place.

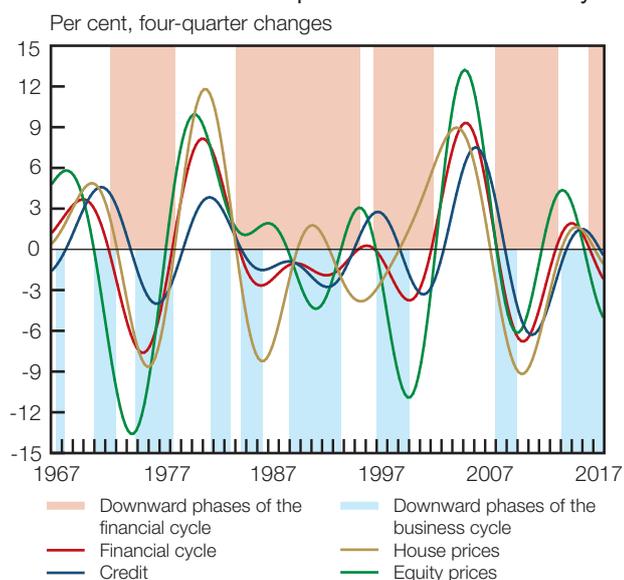
Update on the financial cycle

The financial cycle continued its downward phase.

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 In Figure 37, Christiano-Fitzgerald band-pass filters³¹ (that aim to allow frequencies of between 32 and 120 quarters, and suppress all other frequencies) were applied to constant price data to extract the medium-term cycles in credit, equity prices and house prices. These were then averaged to obtain an estimate of the financial cycle. The downward phases of the business cycle, as calculated by the SARB and published in its *Quarterly Bulletin*, are shown by the blue shaded areas.

Generally, the peaks of the financial cycle are closely associated with financial crises. The current downward phase of the financial cycle began in the third quarter of 2016 (see pink shaded area in Figure 37) and continued throughout 2017. This occurred against the backdrop of a downward phase of the business cycle. The cycles of credit, house prices and equity prices are all in downward phases, confirming subdued economic conditions.

Figure 37 The financial cycle, its components and downward phases of the business cycle



³⁰ Bank for International Settlements, *85th Annual Report*, June 2015.

³¹ L Christiano and T Fitzgerald, ‘The band-pass filter’, *International Economic Review* 44(2), 2003, pp 435–465.

Macroprudential policy regulation

Assessing the application of the countercyclical capital buffer for banks

The total credit-to-GDP gap remained below the long-term trend.

The countercyclical capital buffer (CCB) 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 CCB rate, which forms an integral part of the internationally agreed-upon standards for risk-based capital requirements. The CCB regime has been phased in since January 2016 and will become fully effective on 1 January 2019.

The Basel Committee on Banking Supervision (BCBS) suggested in its guidance to national authorities³² that the credit-to-GDP gap be used as a guide for deploying Basel III CCBs. The credit-to-GDP gap is designed to take the macrofinancial environment in which banks operate into account, and is the main indicator informing the activation of the CCB. According to the phase-in arrangements for the minimum requirements of Basel III, banks in South Africa could be required to hold a CCB. However, the credit-to-GDP gap (Figure 38) remains well below any likely calibration of the lower threshold of the countercyclical buffer add-on for South African banks. In fact, the credit-to-GDP gap has been negative since 2011 and continued to decrease in 2017. This reflects that total credit extended to the private sector continued to remain below its long-term average. Credit extension by banks to households remained relatively subdued, as reflected in the credit-to-GDP gap for credit extended to households that decreased from -4.63 percentage points in the second quarter of 2017 to -5.28 percentage points in the final quarter. The gap for credit extended to corporates also decreased during this period, from 0.01 percentage points to -0.69 percentage points (Figure 39).

Not all gaps for subcategories of credit decreased in 2017; the gaps for leasing finance and for overdrafts and credit cards remained above zero and increased further during the year. Nevertheless, the most significant decrease in the third and fourth quarter of 2017 was in the credit-to-GDP gap for other loans and advances and for mortgages that reached -0.02 and -5.47 percentage points respectively (Figure 40).

It is recognised that the CCB should not be anchored mechanistically on only the credit-to-GDP gap, given that no indicator is infallible and that policymaking requires judgement. The Financial Conditions Index (FCI)³³ is an additional indicator

Figure 38 Credit-to-GDP ratio, gap and Hodrick–Prescott trend

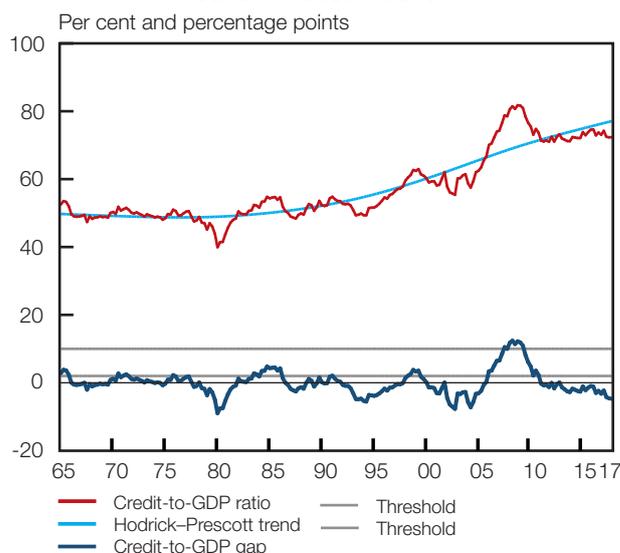


Figure 39 Private sector credit-to-GDP gap: households and corporates

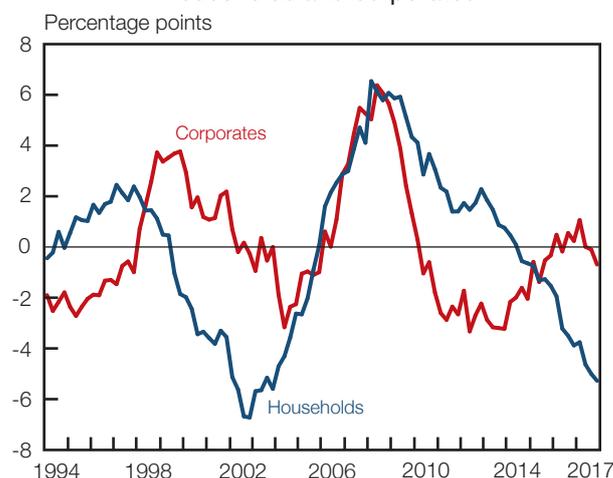
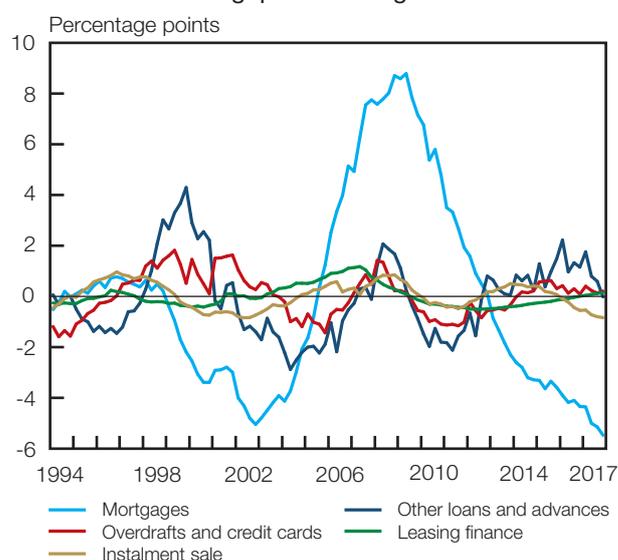


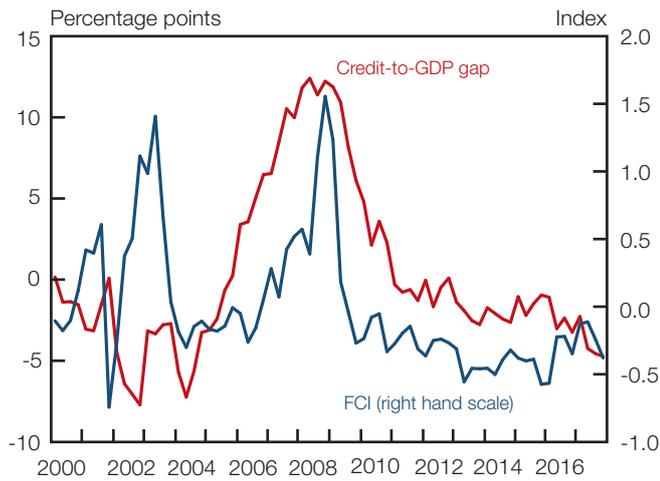
Figure 40 Selected private sector credit-to-GDP gaps according to asset class



³² Bank for International Settlements. Basel Committee on Banking Supervision. *Guidance for national authorities operating the countercyclical capital buffer*, December 2010.

³³ For more details on the construction of the Financial Conditions Index, see the second edition 2017.

Figure 41 Financial Conditions Index and credit-to-GDP gap



that could be used when making CCB decisions. As can be seen in Figure 41, both indicators reflect overall subdued conditions.

Consideration for the activation of the countercyclical capital buffer for banks

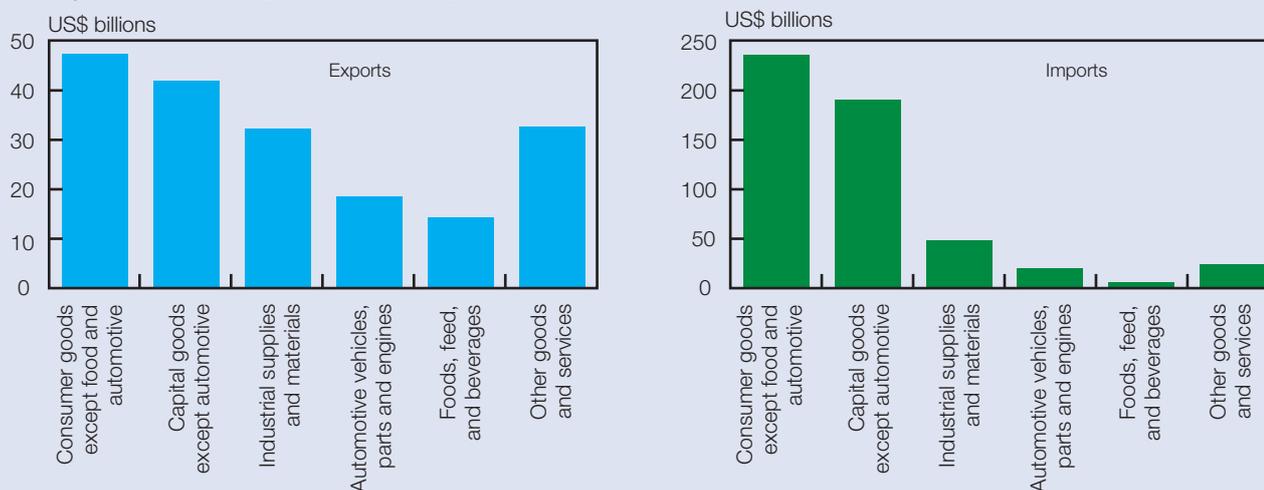
According to the arrangements for the minimum requirements of Basel III, the CCB could be applied to banks from 2016, if required. However, at a recent meeting of the FSC, it was decided, after taking all relevant information into account, not to activate the CCB add-on for banks at this stage and to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

Box 1: Increased protectionism

The World Trade Organisation recently issued a warning that the world could be at risk of a full-scale tariff war, which could lead to a global recession.¹ This was in response to the decision by the United States (US) to unilaterally raise import tariffs. In March 2018, the US administration directed the US Commerce Department to add a 25% levy on steel and a 10% levy on aluminium imports,² which are essential input products for a number of manufactured goods. This move prompted a threat of retaliation from the European Union, Canada, Brazil and China. According to the US Bureau of Economic Analysis, US exports of goods and services to China stood at US\$186 billion in 2017, an increase of 9.8% from 2016. US imports from China totalled US\$524 billion, an increase of 9.3% from 2016. As a result, the US trade deficit with China remained high at US\$337 billion in 2017.

From a financial stability point of view, a trade war between the two largest economies in the world and possibly others would not be desirable. This could have negative implications for global asset prices, and result in lower global exports and increased prices. For the two countries, a retaliation to US trade tariffs could result in China targeting capital and industrial goods from the US, which could adversely affect more than US\$90 billion worth of US products (Figure 1A).

Figure 1A US exports to, and imports from, China



Source: Bureau of Economic Analysis

1 'Global alarm bells sound over full-blown trade war', 5 March 2018, available at <https://www.theguardian.com/business/2018/mar/05/global-alarm-bells-sound-over-full-blown-trade-war-trump-steel-ryan>.
 2 'Trump's steel tariffs are hated by almost every US industry'. Except steel', 8 March 2018, available at <https://www.vox.com/policy-and-politics/2018/3/2/17070816/trump-steel-aluminum-tariffs-businesses>.

Box 2: Update on the Financial Stability Board's annual shadow-banking exercise

The Financial Stability Board coordinates an annual global shadow-banking monitoring exercise,¹ and has formed several working groups in order to develop and strengthen the regulation and oversight of the shadow-banking system.

Cross-country aggregations are challenging, given the diverse nature of the shadow-banking industry and its activities. In 2017 a shadow-banking monitoring exercise was conducted by the Financial Stability Board's Shadow Banking Experts Group, which was set up in 2016 under the Standing Committee on Assessment of Vulnerabilities to drive the annual monitoring exercise. The 2017 exercise covered 29 jurisdictions and the euro area as a whole, representing slightly more than 80% of global gross domestic product (GDP), and contained data up to the end of 2016.

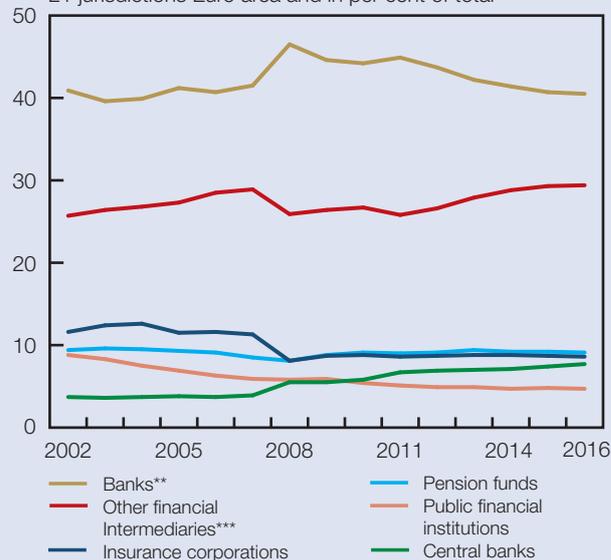
In the 2017 exercise it was found that banks continued to hold the largest share of financial assets globally (Figure 2A), although banks' share has been decreasing since 2008. Financial assets held by other financial intermediaries (OFIs) has been increasing at a faster pace than those of banks over the same period. The activity-based narrow measure of shadow banking recorded an increase of 7.6% from 2015 to 2016. The largest portion of the narrow measure is made up of collective investment vehicles with features that make them susceptible to runs.

According to the Financial Stability Board, the link between OFIs and banks could be beneficial, given that it adds additional diversity in funding sources. However, this link could also become a source of concern due to the possibility of contagion. For example, if OFIs have significant exposures to a large bank, then a substantial credit deterioration of the bank could result in broader contagion across numerous OFIs, and possibly even various OFI subsectors, especially in situations of general market stress.

In order to accurately measure shadow-banking activities, activities that do not adhere to the financial stability definition are removed from the OFI measure, while activities by pension funds and insurance companies which are related to credit intermediation or the facilitation of credit are added. This narrowing is required in order to identify risks in the non-banking sector. Activities that are excluded from the shadow-banking measure are equity funds, real estate funds, real estate investment trusts, trust companies and banks' investment in securitisation schemes.

Figure 2A Assets of financial intermediaries*

21 jurisdictions Euro area and in per cent of total



* Based on time series data included in jurisdictions' 2017 submissions. Exchange rate effects have been netted out by using a constant exchange rate (from 2016). The weighted average is based on total national financial assets.

** All deposit-taking corporations.

*** Also includes captive financial institutions and money lenders, and, for presentation purposes, financial auxiliaries. Increases in the value of OFI assets may also reflect improvements in the availability of data for some OFI subsectors over time at the jurisdiction level.

Source: FSB *Global Shadow Banking Monitoring Report 2017*

¹ Available online: <http://www.fsb.org/wp-content/uploads/R050318.pdf>.

The robustness of the domestic financial infrastructure

This section reviews mostly domestic legislative and regulatory developments in the banking sector, insurance sector and financial markets, and also highlights global regulatory developments related to financial technology (FinTech) issues (Box 4). A key component of the implementation of the Twin Peaks model of financial regulation in South Africa and the Financial Sector Levies Bill (FSLB) is discussed, and an update is also given on insurance sector conduct legislation and draft proposals on alleviating consumer indebtedness through amendments to the National Credit Act 34 of 2005.

Commencement of the Financial Sector Regulation Act 9 of 2017

The second edition of the *Financial Stability Review* of 2017 gave extensive details relating to the FSR Act. The FSR Act was signed into law by the President of the Republic of South Africa on 21 August 2017.

On 29 March 2018, the Minister of Finance gazetted the effective date for the implementation of the FSR Act to be 1 April 2018. As a result, on 29 March 2018, National Treasury announced that the Prudential Authority³⁴ (PA) and the Financial Sector Conduct Authority (FSCA)³⁵ would come into operation on 1 April 2018. This means that the new Twin Peaks model of financial sector regulation for South Africa is now effective.

The PA will supervise the safety and soundness of all financial institutions. The FSR Act also provides for stronger oversight of financial conglomerates and of systemically important financial institutions. The FSCA will supervise how financial institutions conduct their business and treat customers, and will also be responsible for significantly improving customer protection in the financial sector and driving better customer outcomes, ensuring a safer and fairer financial system that is able to serve all South African citizens. A Transitional Management Committee will be responsible for implementing transitional plans until the FSCA Commissioner and Deputy Commissioners have been appointed. The regulatory strategies of the PA and FSCA will be published within six months of their establishment, setting out their intended regulatory focus areas and work plans over the next three years.

Draft Financial Sector Levies Bill, 2017

The purpose of the FSLB is to provide for the imposition and collection of levies for the benefit of the PA, FSCA, Financial Services Tribunal, Ombud Council, Pension Funds Adjudicator and the Office of the Ombud for Financial Services Providers – collectively known as the financial sector bodies. The FSLB also provides for exemption from levies under certain circumstances and for matters connected therewith. This

would be the first time that such a direct levy is imposed on the banking sector for supervisory purposes.

Once the FSLB is enacted, the Financial Sector Levies Act will be administered by the Minister of Finance. A special levy will be charged on implementation of the Financial Sector Levies Act to provide for the initial costs associated with the establishment of financial sector bodies. A separate levy will be charged, levied and collected from all supervised entities that are licensed in terms of a financial sector law. These levies will be collected for the benefit of each of the financial sector bodies mentioned above. The Financial Sector Levies Act³⁶ will commence on a date to be determined by the Minister of Finance.

Regulatory developments affecting the domestic banking sector

Draft National Credit Amendment Bill, 2017

On 1 December 2017, the Portfolio Committee on Trade and Industry (PCTI) in the National Assembly invited public comments on the proposed National Credit Amendment Bill (NCAB).³⁷ The comment period closed on 15 January 2018. Public hearings were scheduled for 30 January 2018, and 6 and 7 February 2018. It is anticipated that the next draft of the NCAB will incorporate the viewpoints from these hearings.

Proposals

According to section 88F of the NCAB, the Minister of Trade and Industry may prescribe a debt intervention measure for a significant exogenous shock to a group of people to alleviate household debt and address economic hardship. Further, such an exogenous shock would have to be identified by the Minister of Trade and Industry and gazetted. A debt intervention measure contemplated may only benefit:

- indigent persons, including disabled persons, minors heading a household and women heading a household;
- persons with an income of less than R7 500 per month;
- persons who have suffered an unforeseen loss of income in a sector identified by the Minister of Trade and Industry, by notice in the *Government Gazette*, as being subject to mass retrenchments; or
- persons who are subject to adverse conditions in a sector or region identified by the Minister of Trade and Industry, by notice in the *Government Gazette*, as such.

Before prescribing a debt intervention measure, the Minister of Finance, Minister of Justice, National Credit Regulator, National Consumer Tribunal and the credit industry need to be consulted. After these consultations, the Minister

³⁶ <http://www.treasury.gov.za/twinpeaks/2017%2006%2006%20Levies%20Bill%20as%20finalised%20and%20circulated%20to%20the%20Standing%20Comm. pdf>.

³⁷ The National Credit Amendment Bill can be accessed at <http://pmg-assets.s3-website-eu-west-1.amazonaws.com/171124Draft-NCAMendmentBill2018.pdf>.

³⁴ Further details are available at www.prudentialauthority.co.za.

³⁵ <https://www.fsc.co.za/Pages/Index.aspx>.

of Trade and Industry must table a report in the National Assembly and, where the debt intervention measure proposed falls outside of the criteria indicated in the NCAB, permission of the National Assembly needs to be obtained.

Stakeholder views

Banks and other credit providers cautioned against the proposed debt relief measures, although other stakeholders such as the trade unions and consumer protection bodies agreed that the debt counselling system needs to be refined, specifically as it relates to low-income consumers. Banks also came out in support of debt relief for retrenched consumers with no income and/or insufficient credit life insurance to pay off their debt.

Possible unintended consequences of proposed debt relief measures

A refined and streamlined implementation of the proposals could result in enhanced market conduct practices and discipline among credit providers, thereby protecting vulnerable members of the public against some predatory market actions. However, there are a number of possible negative effects of these proposed measures. These include the following:

- The measures could create moral hazard whereby beneficiaries of debt relief may create new debt, and other consumers who have not benefitted may deliberately default on their repayments.
- Debt relief measures could affect access to credit where credit providers restrict credit to certain sections of the population because of fears relating to possible future debt write-offs. This could have adverse implications for financial inclusion in South Africa. The cost of credit to the economy could also increase due to credit providers potentially pricing in any debt write-off measures. This could have adverse implications for financial inclusion in South Africa.

Any restrictions on the credit providers' ability to recover monies lent could result in loss rates on unsecured product portfolios, thereby influencing changes in risk appetite and pricing by the lenders. Depending on the volume of the proposed write-offs, the profitability and sustainability of some credit providers and in particular micro-lenders might be adversely affected. This could also destabilise the retail sector which, alongside the micro lending industry, is exposed to these lower-income groups that are the focus of debt intervention.

Finalisation of the Basel III post-crisis reforms

On 7 December 2017 the BCBS finalised the outstanding elements of the Basel III regulatory reforms to address the shortcomings identified in the pre-crisis regulatory framework. Implementation of the new standards is set to commence on 1 January 2022 and will be phased in over five years. The BCBS has already indicated, with the release of these revisions, that it will use its Regulatory Consistency Assessment Programme

as a means to closely monitor the implementation thereof. After protracted negotiations, the finalisation of Basel III will provide certainty to banks and the markets as well as regulators. This agreement presents a framework for regulatory convergence following concerns raised by certain commentators during the lengthy period of negotiations about regulatory fragmentation in some jurisdictions.³⁸ The implementation of these revised Basel III standards will not be without challenges, hence the five-year transition period. The BCBS views the successful implementation of these reforms as a means to strengthen confidence in banking systems and, thereby, enhance financial system stability as well as aid comparability and transparency of banks' risk-based capital ratios.³⁹

A key feature of these revisions is the move away from the use of internal modelling.⁴⁰ The impact of these revisions to Basel III on the South African banking sector is, at an aggregate level, expected to be muted and limited. This is mainly as a result of the already high capital buffers (refer to Annexure 1, Table 1.1 for key banking sector ratios) and low levels of leverage. Because of the big four banks' extensive use of internal models, the impact on these banks is likely to be greater than for the rest of the banking sector. For the smaller banks, the revised standardised approach to credit and operational risks is also likely to result in higher capital requirements.

Table 11 Summary of the revisions to Basel III

Area	Summarised details
Credit risk: standardised approach	The measures introduced include greater granularity to certain exposures and a recalibration of some risk weights to improve the robustness and sensitivity of the existing approach.
Credit risk: internal ratings-based (IRB) approach	The revisions include the limited use of the IRB approach and the removal of the advanced IRB approach for certain asset classes and the removal of all IRB approaches for exposures to equities.
Credit valuation adjustment risk framework	The revisions involve the removal of the internally modelled approach and the introduction of a revised standardised approach aimed at enhancing its risk sensitivity, robustness and consistency.
Operational risk framework	A revised standardised approach for operational risk is introduced, which will replace the existing standardised approaches and the advanced measurement approaches.
Leverage ratio	Revisions were made to the measurement of the leverage ratio and a leverage ratio buffer for G-SIBs, which will be akin to the tier 1 capital buffer set at 50% of a G-SIB's risk-weighted capital buffer based on five ranges (buckets) and also impose restrictions on capital distribution, where applicable.
Output floor	Putting in place an aggregate output floor. This will be set at 72.5% of risk-weighted assets (RWAs) as calculated in terms of the revised standardised approaches. Banks will also be required to disclose their RWAs based on these standardised approaches.

38 M Mckee, 'Basel III may not halt regulatory fragmentation', *Global Risk Regulator* 16(1), January 2018.

39 This is the view of the Chairperson of the Governors and Heads of Supervision, available at <https://www.bis.org/press/p171207.htm>.

40 M Mckee, 'Basel II may not halt regulatory fragmentation', *Global Risk Regulator* 16(1), January 2018.

Impact of International Financial Reporting Standard 9

The International Financial Reporting Standard on Financial Instruments (IFRS 9) was discussed in the first edition of the *Financial Stability Review* of 2017. IFRS 9 replaced International Accounting Standard 39 (IAS 39) and was implemented on 1 January 2018. In terms of IFRS 9, banks and other reporting entities have to account for impairments on loans (financial asset or instruments) by applying the expected credit loss (ECL) model versus the incurred loss model used previously. See Box 3 for a discussion of the reasons behind the changeover to the new impairment model, the mechanics of this model, the regulatory arrangements for the transition to this new standard, and the potential link between IFRS 9 and financial stability.

Regulatory developments affecting the domestic insurance sector

An update on the Solvency Assessment and Management Framework

In the first edition of the *Financial Stability Review* of 2016, the Solvency Assessment and Management (SAM) Framework was reported on and, at that time, it was envisaged that the project would be completed in 2017. Its timelines have since been revised to commence implementation on 1 July 2018 to accommodate the legislative timeline of the Insurance Bill. The SAM reforms are part of a comprehensive revamp of the current financial sector legislation in South Africa. These broader reforms arose from the shift to a Twin Peaks model of financial regulation in South Africa.

The SAM project was launched by the Financial Services Board (FSB) in 2009 in collaboration with the South African insurance industry. The project has been making solid progress towards establishing a risk-based solvency regime for the prudential regulation of both long- and short-term insurers in South Africa. Over the years, SAM has remained firmly focused on its objectives as originally defined, namely to be a dedicated South African framework consistent with the Insurance Core Principles, as set out by the International Association of Insurance Supervisors, to protect policyholders and beneficiaries effectively and to contribute to the financial stability of the South African insurance industry by:

- aligning capital requirements with the underlying risks of an insurer; and
- providing incentives to insurers to adopt more sophisticated risk monitoring and risk management tools.

To date, more than 117 discussion documents and position papers have been published for industry comment. The discussion documents and position papers were informed by the following:

- three sets of quantitative impact studies to test Pillar 1 proposals;
- a Pillar 2 readiness review plus a follow-up study;
- an economic impact study;
- a linked insurance expenses thematic review; and
- a reinsurance regulatory review.

According to the updated SAM document released by the FSB in September 2017, the SAM risk-based framework is close to completion. The focus is now on implementation efforts, to ensure that both the industry and the PA are ready for implementation in July 2018. It should be noted that the exact date of the SAM implementation depends on the legislative timetable of Parliament. It is, however, anticipated that the continued comprehensive parallel run will smooth the transition to the effective implementation of SAM requirements.

The PA has already put in place a number of structures and initiatives to prepare its supervisory staff for the SAM implementation, including an internal training plan and incorporating SAM information in its risk-based supervisory approach and in applications considered under the current Insurance Acts. This will ensure a smooth transition for the PA in regulating the insurance industry on a SAM basis.

Insurance conduct regulations and policyholder protection rules

On 15 December 2017, National Treasury and the FSB published the final Insurance Regulations and the Policyholder Protection Rules (PPRs) under the Long-term Insurance Act No. 52 of 1998 and the Short-term Insurance Act No. 53 of 1998.⁴¹ The Insurance Regulations and PPRs are part of the government's reform programme which is aimed at delivering better customer outcomes throughout the financial sector and heightening market conduct in the insurance sector. Further, the Insurance Regulations and PPRs intend to ensure that the industry treats its customers fairly and that incentives are aligned so that uncomplicated, good-value products are provided to consumers. They further support government's objective in ensuring that the appropriate insurance products are presented and accessible to all South Africans.

A detailed review of the Insurance Regulations is part of the broader review of the conduct of all business legislative frameworks across the various sectors regulated by the PA as part of the Twin Peaks reforms. According to the FSB and National Treasury, the conduct of business reforms

⁴¹ The Insurance Regulations and Policyholder Protection Rules are available at <http://www.treasury.gov.za/legislation/regulations/ICRAndPPR/>.

that will be given effect through the Insurance Regulations and PPRs relate to:

- Phase 1 of the 2014 Retail Distribution Review, which proposes a number of improvements to how financial products are distributed and sold, including principles for the remuneration of intermediaries;
- improvements to the requirements for binder agreements in support of the Retail Distribution Review;
- certain matters identified in the consultations on the Technical Report on the Consumer Credit Market in South Africa published on 3 July 2014;⁴²
- improving policyholder protection in the ombud system by compelling the insurer to display ombud information to policyholders and keep records of complaints, and requiring the insurer to cooperate with the insurance ombuds;
- the Complaints Management Discussion Document published in October 2014 and the Complaints Management Thematic Review published on 17 October 2014;
- the draft Information Letter on Advertising, Brochures and Similar Communications published for comment in December 2013, designed to ensure fair and not-misleading communication with potential policyholders;
- appropriate minimum requirements for claims management;
- additional critical protection for policyholders identified through supervision;
- alignment with international standards in terms of the International Association of Insurance Supervisors' Insurance Core Principles;
- alignment, in certain respects, with the Financial Advisory and Intermediary Services Act No. 37 of 2002; and
- closing regulatory gaps and effecting technical improvements to clarify the intent and purpose of certain provisions.

Changes to the maximum causal event charges that apply to legacy contractual savings policies (entered into before January 2009) in the life insurance sector are also introduced by the Insurance Regulations. They provide for the progressive reduction over time of the maximum penalty that can be charged when a legacy policy is lapsed, surrendered or transferred, or the premium is reduced. The Insurance Regulations and the PPRs commenced on 1 January 2018, with transitional provisions provided for certain sections.

Regulatory developments affecting the domestic financial markets

Finalisation of the Financial Markets Act regulations

On 9 February 2018, the Minister of Finance gazetted regulations in terms of the Financial Markets Act 19 of 2012 to bring regulatory clarity and certainty to certain aspects of the regulatory framework for over-the-counter (OTC) derivatives trading and certain market infrastructures.⁴³ In the case of OTC derivatives transactions, the regulations specify requirements regarding the authorisation of OTC derivatives providers, their reporting obligations to a licensed trade repository (TR) and provide for the clearing of transactions. The FSCA, with the concurrence of the PA, will determine eligibility criteria for OTC derivatives transactions that will be subjected to mandatory clearing.

In the case of financial market infrastructures, the Regulations spell out the steps for the approval of an external central securities depository (CSD) as a participant of a local CSD and requirements for establishing that external link, the assets and resource requirements for exchanges, CSDs, central counterparties (CCPs) and TRs. Chapter 6 of the Regulations deals extensively with licensing and prudential requirements for CCPs in particular. These aim to enshrine the Principles for Financial Market Infrastructures (PFMIs) in South African legislation and include key aspects such as the legal basis, access and participation, governance and risk management, and capital requirements.

Following the global financial crisis of 2007–09, the Group of Twenty (G20) agreed on a broad range of regulatory reforms to address the weaknesses revealed in the financial system. One of the key reform areas identified was the opacity of OTC derivatives markets, transactions and products as well as the systemic risks that these pose to financial stability. In the years since then, jurisdictions around the world have undertaken steps to address the identified weaknesses.

The Financial Stability Board's Twelfth Progress Report on the implementation of OTC derivatives market reforms observed that progress had continued to be made across the OTC derivatives landscape, but nonetheless noted areas of potential improvement, including in the case of South Africa.⁴⁴ While progress had been made in having consultations on trade reporting rules and mandated central clearing, jurisdictions were urged to have in place a framework that would enable the regular assessment of OTC derivatives markets that would, in turn, allow them to move transactions to organised trading

⁴² Available at www.fsb.co.za/departments/insurance/documents/CCI%20technical%20paper.pdf

⁴³ This *Government Gazette* No. 41433 can be accessed at <http://www.gpwonline.co.za/Search/Pages/Results.aspx?k=41433>.

⁴⁴ The report can be accessed at <http://www.fsb.org/wp-content/uploads/P290617-2.pdf>.

platforms where appropriate, which would ensure this element of the G20 commitment is implemented. This was the case even where authorities did not consider that market conditions currently, or for the foreseeable future, warranted specific trade execution requirements being in place.

While South Africa has no domestically licensed authorised CCPs to clear OTC derivatives products, it is taking steps to review its incentives-based approach to central clearing of the market and to determine further regulatory standards to assess which products can be mandated for central clearing. The passing of the Regulations are a further step in such a direction.

Box 3: International Financial Reporting Standard 9

In terms of International Accounting Standard 39 (IAS 39), banks could only recognise credit losses when there was clear evidence of such an event. IAS 39 was therefore criticised for its backward-looking framework (i.e. the 'too little, too late' weakness of IAS 39).¹ In response to this problem, the International Accounting Standards Board issued the International Financial Reporting Standard 9 (IFRS 9) to replace the incurred loss model with an expected credit loss (ECL) model. The ECL model is forward-looking in its approach to expected credit losses and incorporates a broader range of factors (past events, current conditions and supportable forecasts, including current macroeconomic conditions)² to determine these credit losses. Whereas the incurred loss model of IAS 39 has been criticised for amplifying the procyclical effects,³ the ECL model of IFRS 9, with its more timely recognition of loan losses, is expected to reduce procyclicality.⁴

Banks provide loans to a broad range of different clients with different credit risk profiles. When some of these borrowers cannot service the repayments on their loans that are not adequately collateralised, banks face potential credit losses. Banks account for these credit losses in their financial statements via loan-loss provisioning (or allowances) and impairments, in order to reflect the true value of these loans in the books of banks. In the incurred loss model, banks were not allowed to provision appropriately and timeously for credit losses expected to arise from emerging risks. However, the ECL model of provisioning will materially and, in some cases, significantly change the way banks are required to account for the impairments related to these credit losses.⁵ The general expectation is that, with the introduction of IFRS 9, credit impairments will increase. This will accordingly shave off some basis points from the capital adequacy ratio (CAR) of banks, with the exact quantum varying from bank to bank and country to country. The expected deterioration in the regulatory capital or CAR of banks under IFRS 9 is a key channel through which financial stability will be (negatively) impacted. It has been argued, though, that other dimensions of IFRS 9, such as higher provisioning, the possible reduction in procyclicality and improved credit risk management would, in the long-run, enhance financial stability.⁶ The timeline over which these impairments and regulatory capital will take place will influence the nature of the impact on the financial system.

The mechanics of the ECL model under IFRS 9 provides for a three-stage process of calculating impairments. Stage 1 is the performing phase of the asset after the initial recognition thereof and where the asset exhibits no, or low credit risk. The 12-month ECL is calculated for this asset and, with no or low credit risk, impairments are unlikely. Stage 2 is the underperforming stage, whereby the asset displays signs of 'significant increase in credit risk' since the origination thereof.⁷ For such an asset, the ECL impairment that is recognised, is based on the lifetime of the asset concerned. As the loss provisioning increases significantly during this phase, it is often referred to as the cliff effect of moving an asset from Stage 1 to Stage 2 as depicted in Figure 3A.⁸ The sharp increase in loss provisions in Stage 2 in the aforementioned scenario is early and rapid. Stage 3 is the impaired stage of the asset where 'lifetime ECL and interest revenue is calculated on the net carrying amount'⁹ (i.e. the reduced value net of credit impairments). There is thus a step change in the manner and timing of the calculations of impairments under IFRS 9 versus IAS 39.

Under IFRS 9, the approach taken by bank management in incorporating macroeconomic data and assumptions to include in modelling credit risk will be a key determinant of the outcomes to loss provisioning or credit impairments used in the banking sector. The quantum of provisioning allowed will therefore have a direct bearing on the regulatory capital level of a bank, especially during the transition phase of IFRS 9. Loan-loss provisioning will thus become a focal point of bank and supervisor interactions. The implication of greater management judgement in credit impairments requires that in future bank supervisors and market analysts will need to closely scrutinise banks' provisions. The pace and the period over which the impairments are implemented are likely to affect the impact thereof.

Regulators are well aware of the implications of the rapid recognition of credit-loss provisions, or the cliff effect, under IFRS 9 for regulatory capital and, consequently, the soundness of banks. In March 2017, the Basel Committee on Banking Supervision (BCBS) published a document on the

1 N Fykstrom and J Li, 'IFRS – the new accounting standard for credit loss recognition', Sveriges Riksbank, *Economic Commentaries* No. 3, 2018, p1.

2 Z Novotny-Farkas, 'The significance of IFRS 9 for financial stability and supervisory rules', requested by the European Parliament's Committee on Economic and Monetary Affairs, October 2015, p 12, available at <http://www.europarl.europa.eu/studies>.

3 Ibid, p 8.

4 N Fykstrom and J Li, 'IFRS – the new accounting standard for credit loss recognition', Sveriges Riksbank, *Economic Commentaries* No. 3, 2018, , p1.

5 Speech by Deputy Governor Groepe on IFRS and its impact on banks and regulators in Africa, available at www.rebank.co.za/lists/speeches.

6 N Fykstrom and J Li, 'IFRS – the new accounting standard for credit loss recognition', Sveriges Riksbank, *Economic Commentaries* No. 3, 2018, p 4.

7 D Beerbaum, 'Significant increase in credit risk according to IFRS 9: implications for financial institutions', *International Journal of Economics and Management Sciences* 4(9), 2015, p 4

8 N Fykstrom and J Li, 'IFRS – the new accounting standard for credit loss recognition', Sveriges Riksbank, *Economic Commentaries* No. 3, 2018, p 3.

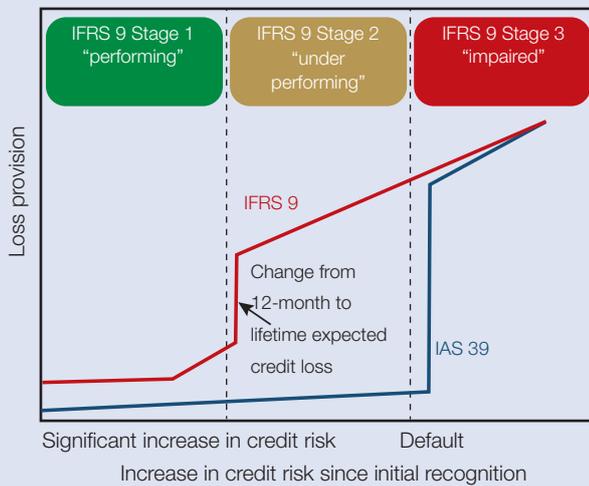
9 D Beerbaum, 'Significant increase in credit risk according to IFRS 9: implications for financial institutions', *International Journal of Economics and Management Sciences* 4(9), 2015, p 5.

Box 3: International Financial Reporting Standard 9

regulatory treatment of accounting provisions, wherein it pointed out this dilemma of IFRS 9 as one of the reasons for allowing jurisdictions to adopt transitional arrangements to mitigate against such negative developments, subject to certain conditions. Later in 2017, the Bank Supervision Department (BSD) of the SARB (now the Prudential Authority (PA)) issued Directive 5 of 2017 which spelt out such transitional arrangements for banks in South Africa by giving them the option of phasing in the regulatory capital impact of IFRS 9 over a period of three years.

A bank that elects to phase in the IFRS 9 capital impact will, however, also have to disclose the 'fully loaded' impact in terms of the Pillar 3 reporting requirements. The PA also requires external auditors of banks to provide it with an audit verification of the 'day one impact' within five months of adopting IFRS 9 for the first time. In October 2017, the BSD conducted an IFRS 9 Quantitative Impact Study (QIS) during which all banks were requested to submit an estimate of the impact of IFRS 9 on their credit impairments, capital and CARs. The main aim of the QIS was for BSD to obtain information about the expected 'day one impact' of IFRS 9 on these key matrices. The information obtained, together with the actual figures reported later in 2018, would thus become the basis for making an assessment of the possible implications of IFRS 9 for domestic financial stability which, together with a few aspects that have not yet been settled, will be explored in the second edition of the *Financial Stability Review* of 2018.

Figure 3A The process of provisioning under IFRS 9 and IAS 39



Box 4: Financial technology and its implications for financial stability from an emerging market perspective

FinTech defined

Financial technology (FinTech) is defined by the Financial Stability Board¹ as technologically enabled financial innovation that can result in new business models, applications, processes, products or services with an associated material effect on financial markets and institutions, and the provision of financial services. This definition implies that FinTech incorporates a wide range of innovations with considerable differences among them. The emergence of FinTech has attracted significant attention from new entrants such as early-stage start-ups, incumbent financial institutions, regulatory authorities and academia.

Impact of technological innovations

Traditional financial services institutions may be facing some of their greatest challenges due to FinTech. These shifts in the innovation frontier may force current incumbents to review their business models and, in the process, respond to new tech-smart consumer demands. Some academics have attributed this type of technological innovation and rapid shifts in innovation to the economist, Joseph Schumpeter, and his theories of 'creative destruction'.² This kind of innovation will result in massive disruptions to existing systems. Other opinions signal that this innovation is similar to that experienced in the past and describe it as 'evolutionary'. These incremental innovations will likely, over time, integrate with existing value chains and business processes to see a symbiosis between new entrants and incumbents.

The pace of change has triggered significant efforts by regulators and global standard-setting bodies to understand FinTech developments and review their implications for financial stability. According to the World Economic Forum,³ the scope of FinTech is broad and wide-ranging, and includes, among other things, artificial intelligence, algorithmic trading, blockchain and distributed ledger technology, cloud computing, crowdfunding, cryptocurrencies, machine learning, and smart contracts. This purview supports the perspective that a broad spectrum of financial services is impacted. These include payments, investments, insurance, deposits and lending, capital raising, and other market provisioning activities.

According to the EY FinTech Adoption Index of 2017, the average FinTech adoption across emerging markets such as Brazil, China, India, Mexico and South Africa is 46%, compared to the global average of 33%. A reason suggested for this rate is that FinTech firms can excel at reaching the technology literate but financially underserved populations. This rate of adoption could increase to 52% globally, with the highest anticipated use among consumers in emerging market countries such as South Africa and Mexico. Based on this index, it is believed that money transfer and payment services are the most popular services used. They grew globally from 18% in 2015 to 50% in 2017, and are likely to remain the most commonly used segments in the near future.

The emergence of cryptocurrencies

Cryptocurrencies and their expanding use cases may also have an impact on financial stability. This is largely dependent on the level of acceptance of cryptocurrencies for the various use cases, including payment and settlements. Rapid technological advancements may result in greater adoption. In an environment where cryptocurrencies are widely accepted and adopted, events such as the unavailability of infrastructure for

payments or the volatility in the value of cryptocurrencies may result in them becoming inappropriate for payments and trigger market disruptions, which could negatively impact economic transactions on a large scale, and therefore lead to systemic risk. This could also have possible second-round effects on the reputational risks of incumbent institutions which could undermine the confidence and the credibility of the financial system as a whole. In addition, if financial institutions gain large exposures to cryptocurrencies and related derivative contracts, they could become vulnerable to credit, market and liquidity risks. If these institutions are large and interconnected, it could lead to increased systemic risks.

One way to assess the size of the cryptocurrency market is to approach it in terms of market capitalisation. According to the market checking website, Coinmarketcap, the total market capitalisation of cryptocurrencies is currently relatively small at \$328 billion (as at 16 March 2018), which comparatively represents about 1.5% of financial markets such as the Standard & Poor's 500 Index. However, it grew substantially, by around 3 200%, from January 2017 to the end of December 2017, highlighting the rapid pace of developments in this area. Should growth continue to escalate at these levels in 2018 and beyond, there could be some financial stability concerns about the systemic impact of cryptocurrencies. This analysis suggests that cryptocurrencies do not currently pose a threat to financial stability, but the remarkable growth rates substantiate the need to strengthen the monitoring of these cryptocurrency markets.

South Africa established an Intergovernmental FinTech Working Group consisting of National Treasury, the Financial Intelligence Centre, the Financial Services Board and the South African Reserve Bank to jointly assess FinTech developments. This working group will assist to proactively respond to emerging risks in this fast-changing landscape, and is committed to addressing financial stability and policy implications of FinTech. While ongoing cooperation is fostered among national regulatory authorities, greater international coordination is encouraged to address inconsistent approaches in pursuit of greater alignment of regulatory practices.

FinTech risks and the impact on financial stability

Although FinTech could at this stage impact all of the current economic activities (deposits, new forms of money, payments, lending, investments and insurance), the collective impact on financial stability is considered low as the rate of adoption is still low, the size of the cryptocurrency market is relatively small, and the interconnectedness with the current financial system is still limited. As new alternative platforms expand and experience a full business cycle, regulators will need to remain vigilant of familiar micro- and macro-level financial services risks. These include financial risks (such as maturity mismatches) and operational risks (such as cyber-risk, business risk, and reliance on third-party providers). This may include other risks, such as procyclicality and contagion risk due to the interconnectedness of systems. The SARB FinTech Unit has been established to develop the capacity to understand these risks (and benefits) of FinTech.

1 Financial Stability Board, 'Financial stability implications from FinTech', 27 June 2017, available at <http://www.fsb.org/2017/06/financial-stability-implications-from-fintech/>.

2 Creative destruction describes the process of industrial transformation that continuously revolutionises the economic structure from within, thereby displacing the old economic process through the creation of new processes.

3 World Economic Forum, 'The future of financial services: how disruptive innovations are reshaping the way financial services are structured, provisioned and consumed', June 2015.



Annexure 1

Table 1.1 Selected indicators of the South African banking sector*

Per cent, unless indicated otherwise

	2017/2018					
	Aug	Sep	Oct	Nov	Dec	Jan
Market share (top five banks).....	90.08	90.20	89.95	90.15	90.47	90.38
Gini concentration index.....	82.85	82.78	82.62	83.20	83.72	83.69
Herfindahl–Hirschman Index (H-index).....	0.179	0.180	0.178	0.179	0.180	0.179
Banks' share prices (year-on-year percentage change).....	11.29	11.73	11.25	8.27	15.37	22.52
Balance sheet						
Total assets (R billions).....	5012	5119	5124	5107	5158	5140
Year-on-year percentage change.....	2.8	5.5	5.0	4.7	5.8	5.1
Total loans and advances (R billions).....	3786	3870	3856	3849	3802	3801
Year-on-year percentage change.....	2.1	4.9	4.0	3.8	2.5	2.0
Capital adequacy						
Total capital adequacy ratio.....	16.3	16.8	16.8	16.8	16.3	16.1
Tier 1 capital adequacy ratio.....	13.5	13.8	13.8	13.8	13.5	13.3
Common equity Tier 1 capital adequacy ratio.....	13.0	13.3	13.3	13.3	12.9	12.8
Credit risk						
Impaired advances (R billions)**.....	107	107	108	108	108	117
Impaired advances to gross loans and advances.....	2.8	2.8	2.8	2.8	2.8	3.1
Specific credit impairments (R billions).....	47	47	46	46	46	52
Specific credit impairments to impaired advances.....	44.2	43.7	43.2	42.6	42.6	44.0
Specific credit impairments to gross loans and advances.....	1.3	1.2	1.2	1.2	1.2	1.4
Profitability						
Return on assets (smoothed).....	1.3	1.3	1.3	1.3	1.3	1.3
Return on equity (smoothed).....	16.8	16.6	16.4	16.0	16.0	16.0
Interest margin to gross income (smoothed).....	57.0	56.9	56.9	57.1	57.0	57.0
Operating expenses to gross income (smoothed).....	55.6	55.7	56.0	56.5	56.6	56.7
Liquidity						
Liquid assets to total assets (liquid-asset ratio).....	9.5	9.4	9.4	9.6	9.8	10.00
Liquid assets to short-term liabilities.....	19.1	18.6	18.8	19.1	19.4	20.0
Liquidity coverage ratio (LCR).....	116.7	114.1	118.5	115.9	119.0	120.3

* Data were updated on 3 March 2018

** 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 Limited

Abbreviations

AGR	augmented Guidotti ratio	LCR	liquidity coverage ratio
Alsi	All-Share Index	MBD	MBD Credit Solutions
BCBS	Basel Committee on Banking Supervision	Moody's	Moody's Investors Service
BER	Bureau for Economic Research	MOVE	Merrill Lynch Option Volatility Estimate
BETI	BankservAfrica Economic Transaction Index	MTBPS	Medium Term Budget Policy Statement
BMR	Bureau of Market Research	NCAB	National Credit Amendment Bill
BoA	Bank of America	OFI	other financial intermediary
BRICS	Brazil, Russia, India, China and South Africa	OTC	over the counter
BSD	Bank Supervision Department	PA	Prudential Authority
CAR	capital adequacy ratio	PCTI	Portfolio Committee on Trade and Industry
CBOE	Chicago Board of Exchange	PMI	Purchasing Managers' Index
CCB	countercyclical capital buffer	PPRs	Policyholder Protection Rules
CCP	central counterparty	QIS	quantitative impact study
CDS	credit default swap	S&P	Standards & Poor's
CSD	central securities depository	S&P 500	Standards & Poor's 500 Index
dti	Department of Trade and Industry	SAM	solvency assessment and management
EBIT	earnings before interest and taxes	SARB	South African Reserve Bank
ECL	expected credit loss	SoE	state-owned enterprise
EDF	expected default frequency	SME	small and medium enterprise
EM	emerging market	TR	trade repository
ETF	exchange-traded fund	US	United States
FCI	Financial Conditions Index	WTO	World Trade Organisation
FinTech	financial technology		
Fitch	Fitch Ratings		
FNB	First National Bank		
FSB	Financial Services Board		
FSC	Financial Stability Committee		
FSCA	Financial Sector Conduct Authority		
FSLB	Financial Sector Levies Bill		
FSR Act	Financial Sector Regulation Act 9 of 2017		
G20	Group of Twenty		
GDP	gross domestic product		
GFSI	Global Financial Stress Index		
GR	Guidotti ratio		
HPI	house price index		
HQLA	high-quality liquid assets		
IAS 39	International Accounting Standard 39		
ICR	interest coverage ratio		
IFRS 9	International Financial Reporting Standard 9		
IIF	Institute of International Finance		
IMF	International Monetary Fund		
IRB	internal ratings-based		
JSE	JSE Limited		