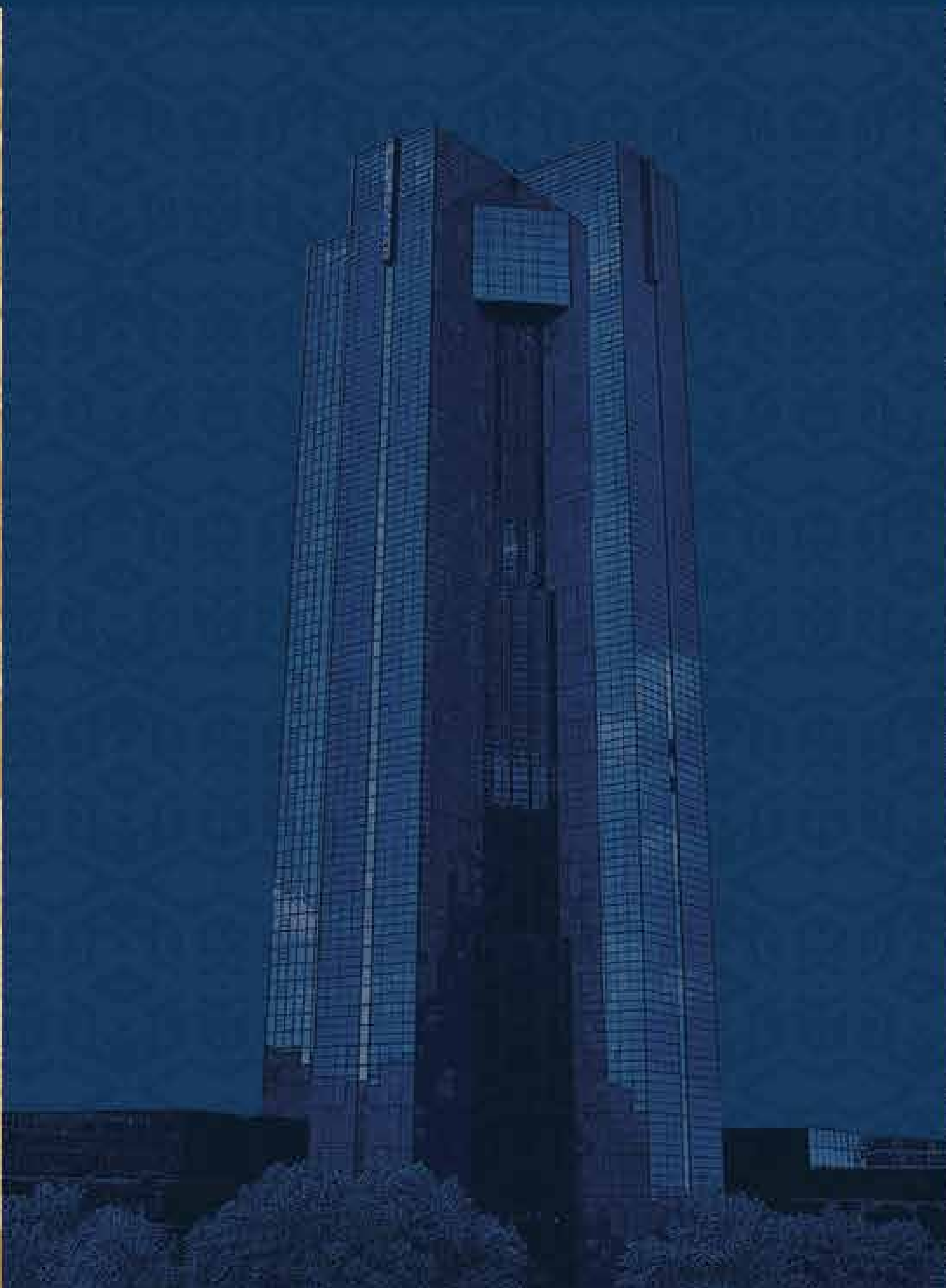
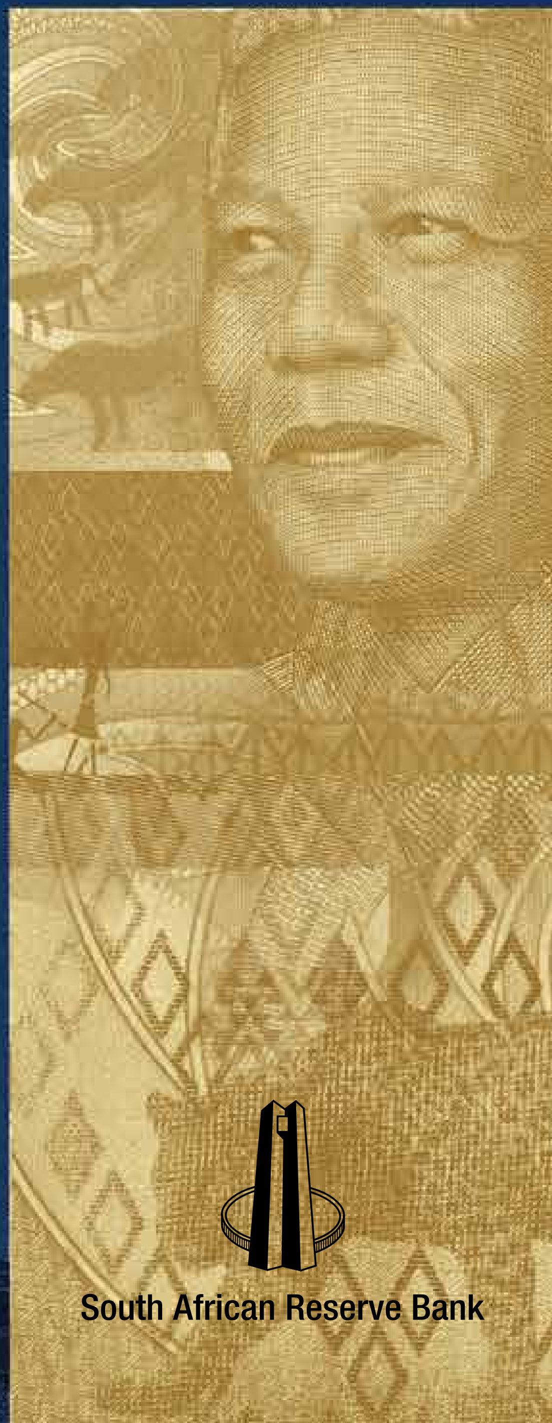
Financial Stability Review

Second edition
2016





South African Reserve Bank

Financial Stability Review

Second edition

2016

South African Reserve Bank

This issue of the *Financial Stability Review* focuses mainly on the six-month period ending June 2016. However, selected developments up to the date of publication were also reported on. Data may include own calculations made for purposes of this publication.

Comments and enquiries relating to this *Financial Stability Review* are welcomed and should be addressed to:

Head: Financial Stability Department
South African Reserve Bank
P O Box 427
Pretoria
0001

Tel. +27 12 313 3601
E-mail: sarbfsr@resbank.co.za

http://www.reservebank.co.za
ISSN: 1811-2226

Purpose of the *Financial Stability Review*

The primary objective of the South African Reserve Bank (the Bank) 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 Bank's function and mandate of protecting and enhancing financial stability in the Republic of South Africa is affirmed in the Financial Sector Regulation Bill, 2015 which is expected to be promulgated in 2016. In pursuit of this objective and to promote a stable financial system, the Bank 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 Bank 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.

Contents

Boxes

Figures

Tables

Overview

Since the previous edition of the *Financial Stability Review*, key risks to the financial system in South Africa have increased. Exogenous risks remained elevated as the South African financial system was exposed to an unstable global economic, financial and political environment that led to high levels of volatility in financial markets. Domestically the low economic growth rate is presenting headwinds to the domestic banking sector and has put the country's sovereign credit rating at risk. Key threats to the country's sovereign credit rating also include heightened domestic political risk, low business confidence levels, a continued increase in government debt, a persistent current-account deficit, and slow implementation of the National Development Plan.

During the period under review, the key driver of short-term global risks was the outcome of the United Kingdom (UK) referendum to leave the European Union which caught investors by surprise and caused excessive levels of volatility in financial markets. Despite the large adjustment in prices, markets managed the increased volumes well, without significant disruption, and apart from a sharp sell-off in some UK-based real-estate funds, no major disorderly events surfaced. Contingency plans and central bank communications helped to restore confidence in markets. However, as details of the UK's exit unfold through the negotiation process, volatility could return. After experiencing sharp losses in the aftermath of the UK referendum, the South African equity market recovered strongly. Gains were diluted, however, following certain domestic political developments. While portfolio flows into emerging market economies (EMEs) improved markedly in 2016, South Africa was an outlier as non-resident investors were net sellers of equities.

Although global risks such as EME capital outflows and a continued slowdown in global growth, including a severe slowdown in China, were mitigated by further central bank monetary accommodation, global risks are still building. Markets generally expect an extended period of low inflation and low interest rates, and an even longer delay in normalising monetary policy. The political climate in many jurisdictions has been characterised by more populist and inward-looking policies. In the euro area banking sector, capital deficiencies, excessive non-performing loans and structural drags on profitability require urgent attention. More generally, markets and economies have become less resilient to shocks impacting negatively on the soundness of financial institutions, further weakening economic growth and financial stability.

Short-term indicators of real economic activity suggest that the improvement in economic growth in the second quarter of 2016 is unlikely to be sustained in the third quarter. Furthermore, the leading business cycle indicator of the South African Reserve Bank (the Bank) continued its downward trend, confirming expectations of slower growth in the third quarter. The weak global economic growth is expected to continue to weigh on economic and financial conditions in South Africa.

The economic and fiscal outlook for South Africa, coupled with political risk, has continued to impact perceptions of the likelihood of a sovereign credit rating downgrade. In the unlikely event of a downgrade, South Africa might experience initial short-term losses in the domestic currency and bond markets as well as an outflow of capital, but these developments are not expected to have a destabilising effect on the functioning of domestic financial markets. Based on the exclusion criteria of the various global bond indices, a downgrade to sub-investment grade (foreign currency) does not pose a short- to medium-term risk of South Africa being excluded. South African banks have been subjected to a stress test in the adverse scenario of a downgrade to sub-investment grade and the results indicate that banks are adequately capitalised to deal with a downgrade to sub-investment grade.

In the South African banking sector, growth in total assets continued to moderate, mainly because of a slowdown in the growth of loans and advances amid a deteriorating economic environment. All categories of loans recorded a moderation in growth during this period. Although impaired advances as a percentage of the total loan book remained low and relatively stable, defaults related to small- and medium-sized enterprises (SMEs), and retail revolving credit and 'other' credit increased by the end of June 2016 compared with the prior year. Banks have, nevertheless, succeeded at achieving high returns on capital by effectively managing operating expenses.

The rising interest rate cycle during the period under review resulted in some deleveraging by domestic households. Although growth in household debt has moderated somewhat, households remain vulnerable to possible interest rate rises or economic shocks and, according to the Household Debt Service Risk Index, they remain in the 'high risk' range. In addition, the number of applications for credit decreased. Consumer confidence remained well below the long-term average as consumers are becoming more vulnerable with regard to their debt-servicing capacity.

Business confidence deteriorated further in the second quarter of 2016 due to, among other things, the weak domestic economic environment. The deteriorating domestic business conditions and weaker exchange rate increased the burden of servicing international debt by corporates. Similar to other emerging markets, South African corporates have increased their borrowing in foreign currency albeit to a lesser extent. The rise in foreign currency-denominated debt could expose domestic borrowers to rollover and foreign currency risk. South African corporates have generated sufficient cash flow over the past year to service their interest commitments. Although there is a less than 3 per cent probability that South African corporates would not be able to honour their debt obligations in the next year, the distribution of the expected default frequencies of firms has shifted since March 2016, implying that more South African corporates are now more likely to default.

Internationally, the Financial Stability Board identified a number of financial system reform areas to be included in its programme of thematic peer reviews. Market conduct issues related to financial institutions and corporate governance were identified as areas requiring more attention. To further improve on the robustness of the domestic financial infrastructure, South Africa is committed to aligning its regulatory framework with that of international standards.

Over the past few years, correspondent banking relationships have declined in certain parts of the world. This has raised concerns as a disruption to correspondent banking activity has the potential to negatively affect economic growth and financial inclusion initiatives, and compromise the smooth functioning of the financial system. Difficulties experienced with correspondent banking on the African continent have to date not presented an imminent systemic threat to financial stability in South Africa. Nevertheless, regulatory authorities and global standard-setting bodies are addressing these challenges through an approved four-point plan. Furthermore, National Treasury, together with the Bank and the Financial Services Board, published the third draft of the Financial Markets Act Regulations. The regulations form part of the over-the-counter derivatives regulatory framework which started with the enactment of the Financial Markets Act, 2012. On 11 July 2016, following a three-phased process of implementation, the JSE Limited successfully launched a three-day equities settlement cycle. This move has more closely aligned South Africa's equity markets with international best practice settlement standards.

As part of its responsibilities, the Financial Stability Committee (FSC) of the Bank also regularly assesses the need for mitigating actions, including the implementation of a countercyclical capital buffer for banks. At its most recent meeting, the FSC decided to keep the buffer rate at zero as none of the indicators used for this purpose show signs of excessive credit extension.

Despite elevated levels of global financial market volatility in addition to domestic economic, financial and political events causing some headwinds during the period under review, the financial system is assessed as robust, characterised by well-capitalised, liquid and profitable financial institutions. During the review period, the South African financial system continued to facilitate financial intermediation and mitigate negative spillovers and disruptions.

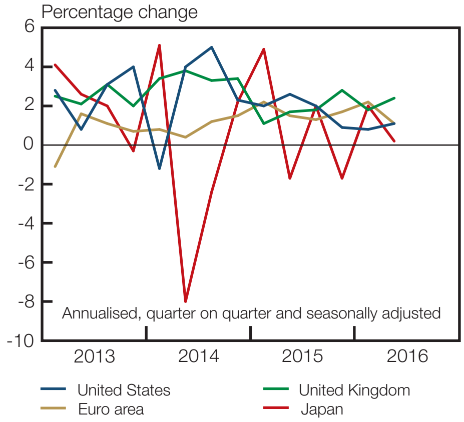
Financial stability developments and trends

Economic growth and outlook

The global economic growth outlook remained constrained, with most advanced economies posting lower-than-expected gross domestic product (GDP) growth during the second quarter of 2016. Following the referendum vote in June 2016 for the United Kingdom (UK) to leave the European Union (EU), the global growth outlook for 2016 was revised downwards because of uncertainty surrounding the details of the actual exit of the UK as well as other factors such as geopolitical turmoil, terrorism and rising protectionism. The International Monetary Fund (IMF) forecasts global growth of 3,1 per cent and 3,4 per cent for 2016 and 2017 compared to earlier estimates of 3,2 per cent and 3,5 per cent respectively.[1]

After slowing for four consecutive quarters, United States (US) GDP growth accelerated to 1,1 per cent in the second quarter of 2016 (Figure 1), driven by an increase in consumer spending, exports and federal government spending. Factors that detracted from growth included weak corporate investment, lower state and local government spending, and a downturn in residential fixed investment.[2] In the current environment, unemployment in the US is at low levels, inflation is contained and the economy appears to be withstanding the effects of elevated financial market volatility, an appreciating US dollar and weak global demand. However, a decline in labour force participation, a widening income gap, a fragile energy sector, weak productivity and possible post-election policy changes are among the challenges that the US needs to address to achieve strong and sustainable economic growth.[3] Hence, the outlook for the US economy remains somewhat subdued as the above-mentioned factors continue to exert downward pressure on the economy.

Figure 1 Real economic growth in selected economies



Source: Bloomberg

Real GDP in the euro area expanded at its slowest pace since mid-2015, increasing at a rate of 0,3 per cent in the second quarter of 2016 from 0,6 per cent in the first quarter. The disappointing performance was largely driven by 0 per cent economic growth in Italy (impacted by negative developments in the banking sector) and a slowdown in economic growth in Germany and France.

In the UK, GDP growth amounted to 0,6 per cent in the second quarter from 0,4 per cent in the previous quarter, largely attributed to the industrial and manufacturing sectors. However, the UK's decision to leave the EU (referred to as 'Brexit') and the uncertainty surrounding the exit procedure is likely to cause the economy to stagnate in the second half of 2016 and in 2017. The UK economy could also be impacted by a fall in corporate investment, weaker employment growth and further sterling depreciation, thereby contributing to higher inflation and a decrease in household income and expenditure. The IMF forecasts UK GDP growth of 1,7 per cent and 1,3 per cent in 2016 and 2017 respectively. The Bank of England is expected to continue with its accommodative monetary policy stance to support economic growth.

1 International Monetary Fund, *World Economic Outlook Update*, October 2016.

2 Bureau of Economic Analysis, *National Income and Product Accounts Gross Domestic Product: Second Quarter 2016 (Advance Estimate) Annual Update: 2013 through First Quarter 2016*, 29 July 2016.

3 International Monetary Fund, *2016 Article IV Consultation with the United States of America: Concluding Statement of the IMF Mission*, 22 June 2016.

For the euro area as a whole, Brexit is expected to negatively affect economic growth in 2016 and 2017 through lower net trade, persistent uncertainty and tighter monetary and financial conditions. Deflationary risks are likely to induce the European Central Bank (ECB) to extend its asset–purchase programme beyond March 2017. Other downside risks to the euro area include adverse developments in the region's banking sector such as asset quality risk and persistent profitability pressures,[4] and political events such as Italy's constitutional referendum this year and elections in the Netherlands, France and Germany in 2017.

Japan's annualised GDP growth slowed to 0,2 per cent in the second quarter from 2 per cent in the first quarter as demand remained weak and inflation trended lower on yen appreciation. The direct impact of Brexit on Japan is expected to be minimal, given limited trade ties between these countries. Nonetheless, Japan's economy is expected to struggle as it continues trying to raise inflation to stimulate spending and boost economic growth. More recently, Japan embarked on a new policy called 'yield curve control',[5] the objective being to counter a flattening of the bond yield curve and boost economic activity and inflation. Tighter US monetary policy could support the Japanese economy, owing to expectations of yen depreciation, a resultant rise in inflation, rising equity markets, improved corporate profits and higher exports.

The growth outlook for emerging market economies (EMEs) remained mixed, owing to country-specific factors, while slow economic growth in Asia and the US are also expected to weigh on global growth. Negative interest rates[6] in some advanced economies have redirected investors back to EMEs in search of higher yields, supporting a more stable and optimistic economic growth outlook for some EMEs. Higher economic growth is expected for Brazil, Russia and China, while economic growth for Turkey and South Africa was revised downward, owing to idiosyncratic risks such as heightened political risk.[7]

In the first half of 2016, Brazil experienced its worst recession on record, with real GDP contracting by a revised 0,4 per cent in the first quarter and by 0,6 per cent in the second quarter of 2016 – its sixth consecutive quarterly contraction. However, a more optimistic outlook and higher business confidence is expected to put economic growth back in positive territory in 2016. For EMEs as a whole, the IMF expects GDP growth of 4,1 per cent and 4,6 per cent for 2016 and 2017 respectively.

GDP growth in China was above expectations at 6,7 per cent in the second quarterly of 2016, relatively unchanged from the previous quarter. Growth was largely supported by an increase in demand aided by various stimulus measures from the government and the People's Bank of China. The stabilisation of growth is expected to remain a policy priority for the near future. In addition to expanding fiscal measures to support infrastructure investment, China is also expected to introduce measures to boost private investment as well as continue with its accommodative monetary policy stance. The main risks to the economic outlook remain a more drastic

4 See https://www.moodys.com/research/Moodys-European-banking-outlook-2016-banks-fundamentals-are-stable-but--PR_341408.

5 Through this policy, Japan adopted a target of 0 per cent for the 10-year government bond yield.

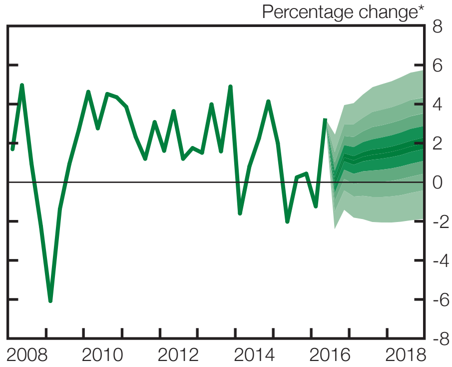
6 Negative interest rate policies were discussed in the first edition for 2016 of the *Financial Stability Review*, page 5.

7 See https://www.businessworld.ie/world-news/Moody-s-raises-outlook-for-emerging-markets-in-2016-2017-565414.html.

cooling off of the property sector and inadequate policy measures to support private investment.

In South Africa, real GDP contracted by 1,2 per cent in the first quarter of 2016 before increasing by 3,3 per cent in the second quarter (quarter on quarter, seasonally adjusted and annualised). In September 2016 the Bank revised its growth forecast for the country upwards to 0,4 per cent in 2016 from 0 per cent previously (Figure 2).[8] The economic growth fan chart indicates the Bank's forecast for economic growth for the next two years of 1,2 per cent (2017) and 1,6 per cent (2018). Constrained global economic growth is expected to continue to weigh on domestic economic growth, alongside a volatile rand exchange rate, prolonged effects of a drought, low levels of gross fixed capital formation, low consumption expenditure by households and government, and weak credit demand by households.

Figure 2 South Africa: Real GDP* growth outcomes and projection**



* At seasonally adjusted annualised rates

** Note: 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 per cent of the probable outcomes, including the central projections. Moving away from the central projection, the area covered by each successive bank, shaded slightly lighter and added on either side of the central band, adds a further 20 per cent to the probability, until the whole shaded area depicts a 90 per cent confidence interval. The width of the coloured confidence bands is an indication of the estimated uncertainty.

Sources: Statistics South Africa and South African Reserve Bank

Short-term indicators of real economic activity for July 2016 suggest that the improvement in real economic growth recorded in the second quarter is unlikely to be sustained in the third quarter. Furthermore, the BankservAfrica Economic Transaction Index (BETI)[9] and the Barclays Purchasing Managers' Index (PMI)[10] fell during July 2016. The BETI suggests that July was a particularly weak month for South Africa as economic transactions fell by the most in 18 months. The seasonally adjusted PMI also declined during July, but remained above the neutral 50-index-point level. In addition, the Bank's leading business cycle indicator continued its downward trend that started in October 2013, confirming expectations of a subdued outlook for domestic output. The weak global and macroeconomic environment poses downside risks to the country's economic outlook.

In the immediate aftermath of Brexit, South Africa experienced high levels of market volatility due to strong financial linkages with the UK. The domestic currency, equity and bond markets initially experienced sharp losses but later recovered. From a trade point of view, Brexit is expected to have a limited impact on South Africa, given that South African merchandise exports to the UK have decreased over time and represented only 4 per cent of total South African exports and 1 per cent of South Africa's nominal GDP in 2015. It is envisaged that even under a scenario of a severe contraction in UK economic growth, the direct impact on South Africa's real economy would be limited.

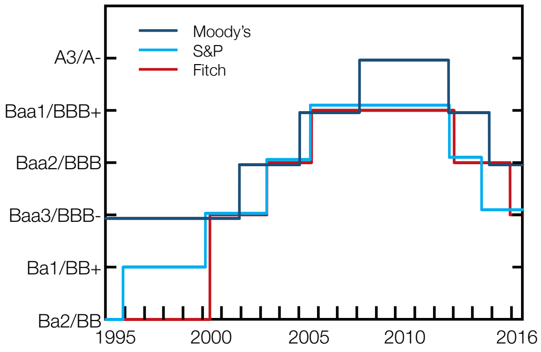
In the past few years, the deteriorating economic and fiscal outlook for South Africa, coupled with political risk, has placed pressure on the country's sovereign credit rating, which is currently at investment grade. Hence, the possibility of a downgrade to sub-investment grade has increased. The difference between investment grade and sub-investment grade status has implications for a country's borrowing costs as global investors, particularly those who invest against an index, tend to steer away from lower-rated credit. South Africa is included in various global bond indices against which global fund managers benchmark their portfolios. Such global bond indices include the Citibank World Government Bond Index (WGBI) (local currency), JPMorgan Bond Indices (local and foreign

8 South African Reserve Bank, Statement of the Monetary Policy Committee, 22 September 2016, available at http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/7396/MPC%20Statement%20July%202016.pdf.

9 BETI Index, Johannesburg: BankservAfrica, 11 August 2016, available at http://www.bankservafrica.com/BETI. The BETI is an early economic scorecard which provides an overall trend in economic activity in the near term.

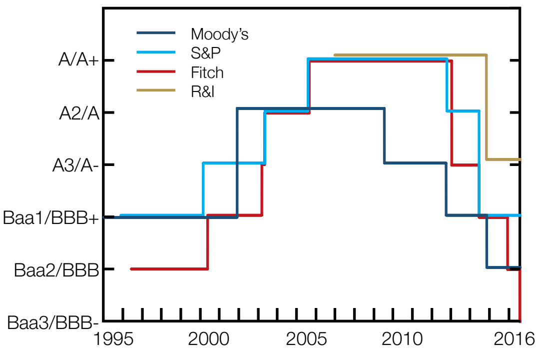
10 Barclays PMI, Stellenbosch: Bureau for Economic Research, August 2016, available at https://www.ber.ac.za/BER%20Documents/Barclays-PMI/?doctypeid=1066.

Figure 3 South Africa's foreign currency ratings



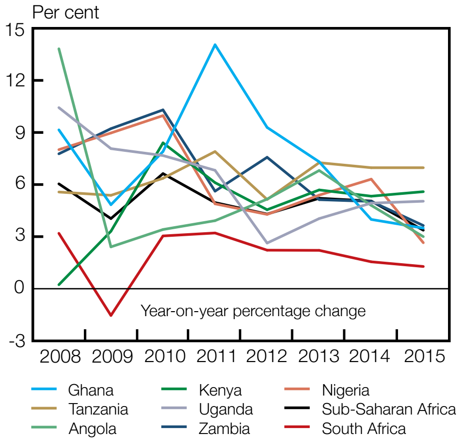
Source: Bloomberg

Figure 4 South Africa's local currency ratings



Source: Bloomberg

Figure 5 Real GDP growth in sub-Saharan Africa



Source: International Monetary Fund

currency) and the Barclays Global Aggregate Index (local currency). South Africa's foreign currency debt is currently rated investment grade by all three rating agencies. The ratings by Standard & Poor's (S&P) and Fitch Ratings (Fitch) for South Africa are one notch above sub-investment grade (BBB-), while the rating by Moody's Investors Service (Moody's) is at Baa2, which is two notches above sub-investment grade (Figure 3). On local currency debt, South Africa is rated one notch above sub-investment grade by Fitch (BBB-), two notches above sub-investment grade by Moody's (Baa2) and three notches above by S&P (BBB+) (Figure 4).

Based on the exclusion criteria of the various global bond indices in which South Africa is included in, a downgrade to sub-investment grade (foreign currency) does not pose a short to medium-term risk of South Africa being removed from any of the aforementioned global bond indices. In addition, South Africa's exclusion from the WGBI would require double downgrades (local currency) from Moody's and a triple downgrade from S&P, which does not appear to be a short- to medium-term risk for the country.

In general, asset prices tend to 'price in' rating actions ahead of time. However, credit rating downgrades to sub-investment grade have been known to trigger short-term losses, particularly during periods of high market volatility, as witnessed by the experiences of Brazil, Russia and Turkey. The reaction of asset prices after ratings decisions can also be supported or hindered by the global macrofinancial landscape. In this regard, South Africa's credit default swap (CDS) spread has increased over the past two years, suggesting that the market has largely priced in sub-investment grade status for South Africa.

If one takes into consideration the CDS performances of South Africa's peer emerging market group (with similar ratings and economic fundamentals) ahead of a downgrade to sub-investment grade as well as the short-term losses experienced in the aftermath of a downgrade, it is expected that South Africa, in the unlikely event of a downgrade will also experience initial short-term losses (particularly in the domestic currency and bond markets) and an outflow of capital. However, these developments are not expected to have a destabilising effect on the functioning of the domestic financial markets. On the banking side, stress tests of an adverse scenario where South Africa is downgraded to sub-investment grade indicate that banks are adequately capitalised to deal with a downgrade to sub-investment grade.

Economic growth and outlook in sub-Saharan Africa

As one of the fastest growing regions in the world, developments in Africa, particularly sub-Saharan Africa (SSA), could also have implications for economic growth in South Africa. Economic growth in SSA began to slow from 2010 (Figure 5), with 2015 recording the slowest growth rate in 15 years at 3,5 per cent. The moderation in growth has largely been attributed to lower commodity prices, a slowdown in growth in the region's trading partners (mainly China) and tighter borrowing conditions by financial institutions. According to the IMF's latest forecasts,[11] growth in the region is expected to remain weak for 2016 at 1,4 per cent, about 2 percentage points lower than in 2015 and 0,2 percentage points lower than its previous forecast.

11 International Monetary Fund, *World Economic Outlook Update*, October 2016.

The outcome of the UK referendum to leave the EU has posed substantial downside risks for the global economy and it is expected that SSA will not be immune to the Brexit contagion. The growth channel could be negatively impacted given SSA's dependency on sustainable global demand, increasing commodity prices, higher risk appetite and continued donor funding. Over the short term, however, the region should be more insulated from financial market volatility due to its limited integration with global financial markets (with the exception of South Africa).

Financial market developments and trends

Divergent global monetary policy is expected to persist as policymakers take a cautious approach in an environment of weak global growth and uncertainty surrounding the full impact of Brexit. Since the beginning of 2016, global financial markets have been characterised by episodes of high volatility and changing sentiment. On the one hand, sentiment has been supported by accommodative monetary policy and negative interest rates[12] by key advanced economy central banks. On the other hand, uncertainty has persisted on the timing of the next US interest rate increase. In addition, financial markets were also affected by uncertainty surrounding the sustainability of the rally witnessed in emerging markets as well as the recent stabilisation in the Chinese economy. The South African financial markets were not immune to international developments and also had to contend with some idiosyncratic challenges.

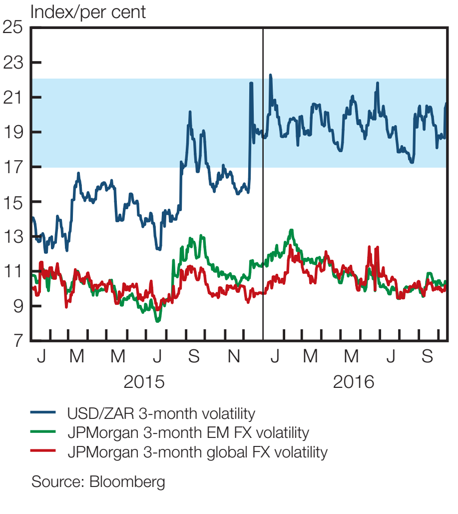
Volatility in the rand/US dollar exchange rate and bond market

During the period under review, rand volatility persisted, following two incidents of extreme volatility under impaired liquidity conditions in December 2015 and a further incident in January 2016. As reported in the first edition for 2016 of the *Financial Stability Review*, the rand depreciated sharply in December 2015. The rand experienced a bout of sharp depreciation again on 11 January 2016 (R17,91 against the US dollar) in Asian trade amid thin liquidity conditions after Japanese investors liquidated rand holdings. Market movements can be exacerbated in times of thin liquidity conditions. Since the second half of 2016, the rand has been vulnerable to investor sentiment, largely owing to deteriorating domestic conditions and expectations of continued monetary policy normalisation in the US.

During recent risk events such as the UK's surprise referendum vote to leave the EU (June 2016) and further negative domestic political developments (August 2016), volatility in the rand/US dollar exchange rate remained elevated when compared to the JPMorgan three-month emerging market volatility index and the JPMorgan three-month global foreign exchange volatility index (Figure 6).

Thin liquidity conditions[13] appear to be a recurring problem for the rand, often reflected in large fluctuations in the exchange rate. Against a backdrop of deteriorating domestic economic and political conditions, and the possibility of a South African sovereign credit rating downgrade to sub-investment grade by the end of 2016, the Bank will continue to closely monitor liquidity conditions in the currency market.

Figure 6 Volatility in the rand-US dollar exchange rate and other global measures

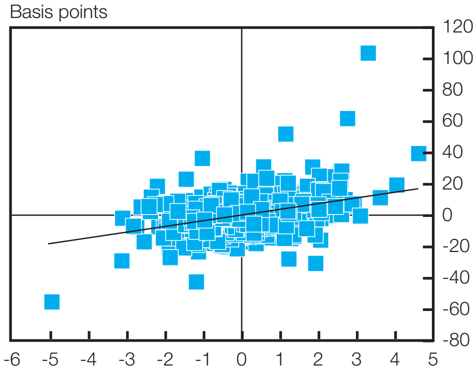


Source: Bloomberg

12 See Box 1 for a discussion on the impact of negative interest rates on global pension funds and insurance companies.

13 Liquidity is usually determines by volatility of price movements. A highly liquid market tends to result in currencies moving gradually and in small quantities. A less liquid market tends to result in currencies experiencing large and abrupt movements.

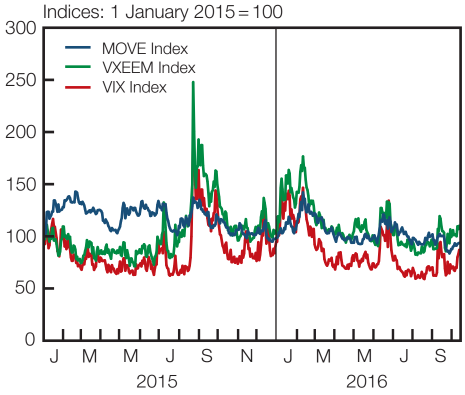
Figure 7 Volatility in the South Africa/United States bond spread[1] and rand/US dollar exchange rate



[1] Correlations calculated from 2013 daily data

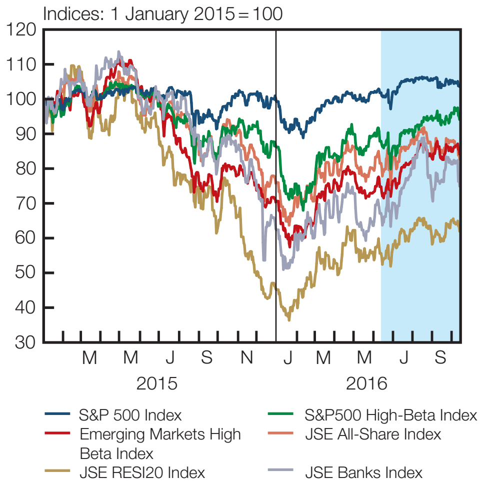
Source: Bloomberg

Figure 8 Market indicators of volatility



Source: Bloomberg

Figure 9 The JSE All-share Index and other equity indices



Source: Bloomberg

There is generally a positive relationship between changes in the rand/US dollar exchange rate and the spread between the South African rand-denominated 10-year bond yield and the US dollar-denominated 10-year Treasury yield (Figure 7). The positive correlation indicates that the performance of the local currency is, among other factors, largely driven by interest rate differentials between the two transacting countries. Hence, the performance of the domestic currency is influenced by the outlook for US monetary policy.

The South African bond market tends to benefit from investor preference for emerging market bonds that have posted higher returns relative to other risky asset classes. While rand weakness makes domestic bonds cheaper for international investors, it also increases volatility as it creates currency risk for international investors that have to repatriate funds. Foreign currency-denominated debt has become expensive for domestic corporates during periods of sustained rand depreciation.

Equity markets

In 2016 the South African equity market experienced high volatility in line with global trends. Market volatility increased sharply ahead of the Brexit vote in June 2016. The Brexit result surprised many as the UK voted to leave the EU, triggering a massive sell-off across riskier assets and the pound sterling as investors opted for safe-haven assets. The Chicago Board Options Exchange Volatility Index (VIX) reached a high of 26 index points, the pound sterling's (against the US dollar) one-week implied volatility spiked to an all-time high of 48 per cent and the Merrill Lynch Option Volatility Estimate (MOVE) Index[14] remained high. The spike was short-lived and all three volatility indices (Figure 8) have subsequently stabilised as risk appetite returned to the markets. However, once details of the UK's exit from the EU unfold, volatility could return.

The domestic equity market failed to benefit from increased risk appetite towards EMEs and underperformed its emerging market peers, amid volatile trading conditions. The underperformance was largely due to South Africa's deteriorating economic fundamentals. During the period under review, the JSE All-share Index (Alsi) recorded marginal gains of about 2 per cent compared to the MSCI Emerging Market Index that increased by 13 per cent (Figure 9).

After experiencing sharp losses in the aftermath of the UK referendum in June 2016, the domestic equity market recovered strongly, led by bank shares that rose by about 39 per cent between the end of June 2016 and mid-August. Gains, however, were diluted as the banks' index declined by 20 per cent in August 2016, following domestic political developments.

Portfolio flows

According to the Institute for International Finance (IIF), portfolio flows into EMEs improved markedly in 2016 compared to the previous year, rising by 23 per cent year on year for the period January to August 2016.

14 The MOVE Index measures the implied volatility in US Treasury markets.

EME inflows totalled US$76,62 billion, which is US$14,13 billion more than that recorded for the same period in 2015 (Figure 10).

Over this period, South Africa recorded net cumulative foreign selling of US$0,36 billion, made up mostly of equity outflows totalling US$5,3 billion (R78,1 billion) (Figure 11) – the highest level of equity outflows in five years. This compared to equity inflows of US$4,1 billion recorded in the previous year.

Conversely, non-residents were net purchasers of US$1,9 billion (R27,5 billion) worth of domestic bonds between January and August 2016, making South Africa the third-largest recipient of bond inflows. Portfolio flows are a critical component for the financing of the country's current account. Thus far, the current-account deficit has been adequately financed by portfolio inflows. However, the recent outflows, particularly of equities, is of concern. A further deterioration in portfolio inflows could erode South Africa's ability to finance its current-account deficit.

The impact of idiosyncratic risks in South Africa has been evident across most domestic asset classes (except for domestic bonds) that have underperformed their emerging market peers. Political developments, particularly since August 2016, have been reflected in the country's five-year CDS spread that has widened relative to that of similar-rated countries (Figure 12).

Thus, despite an increase in global risk appetite owing mostly to accommodative monetary policy by central banks, financial markets in EMEs, including South Africa, are expected to remain vulnerable to a reversal in risk sentiment.

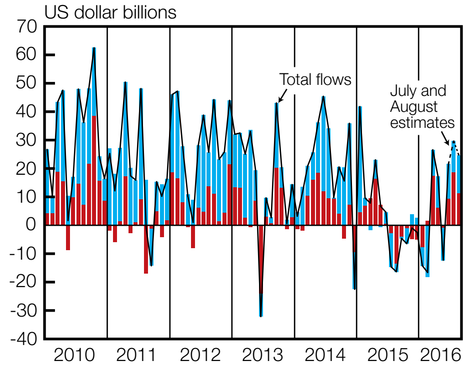
Financial institutions

Banks and bank-lending conditions[15]

Emerging market bank-lending conditions[16] remained tight in the first six months of 2016. Credit standards in general improved but remained below the neutral 50-index-point level, suggesting a tightening bias. For SSA this was true for all type of loans. Also, the SSA region recorded a significant drop in loan demand, especially in the second quarter of 2016. Only demand for consumer loans improved in the second quarter of 2016 against a backdrop of increased non-performing loans.

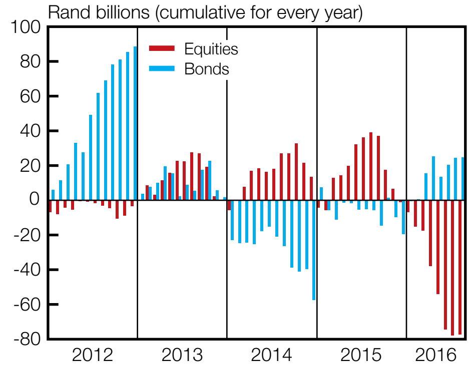
For the South African banking sector (Table 1), all categories of loans recorded a moderation in growth during the past eight months (Figure 13). Growth in total loans and advances continued its moderation for most of 2016, except in August when it picked up slightly compared to the year before (Figure 14). Growth in credit to corporates in particular moderated significantly, from 18,3 per cent at the end of January 2016 to 7,9 per cent by the end of August 2016. The default ratio of this category of loans, specifically those by the large banks, however, decreased marginally (from 1,6 per cent in January to 1,0 per cent in August 2016). Growth in retail exposures remained relatively unchanged at 3,1 per cent over the same period. The moderation in growth of total loans was the main contributor to the continued slowdown in the growth of total assets of the sector in 2016 (Figure 14).

Figure 10 Total portfolio flows into emerging markets



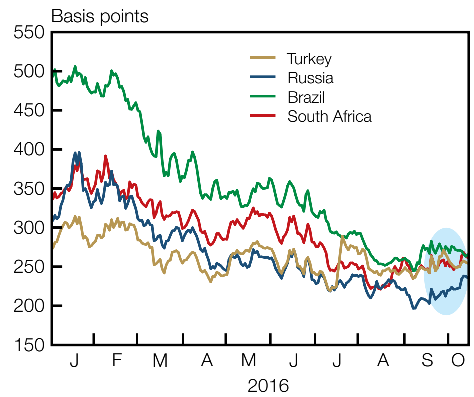
Sources: Bloomberg and Institute of International Finance

Figure 11 Net purchases and sales of bonds and equities by non-residents



Source: Strate

Figure 12 South Africa's five-year CDS spread compared to other EMEs's five-year CDS spreads



Source: Bloomberg

15 See Box 2 for a South African perspective on shadow banking.

16 Institute of International Finance, *EM Bank Lending Conditions Survey*, August 2016.

Figure 13 Composition of and growth in selected loan categories

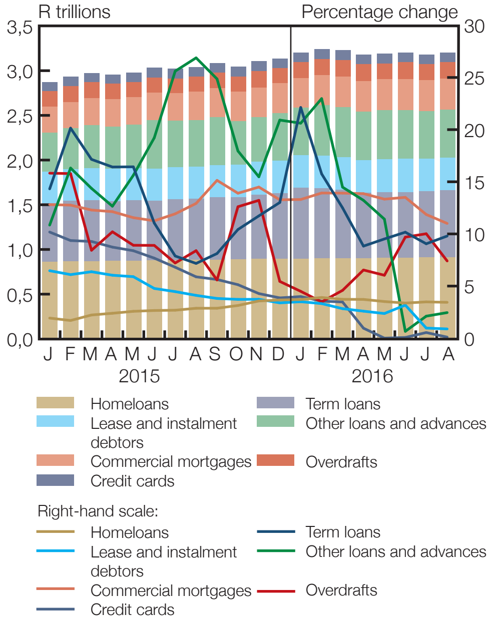


Figure 14 Total banking-sector assets

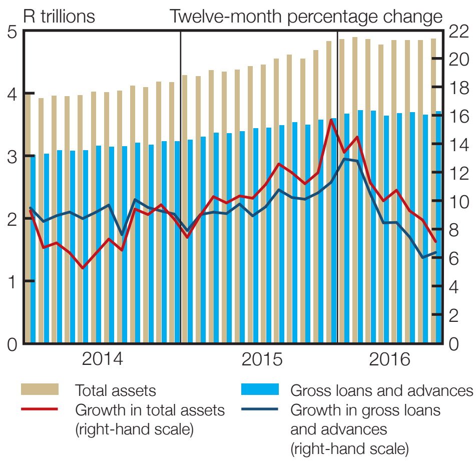
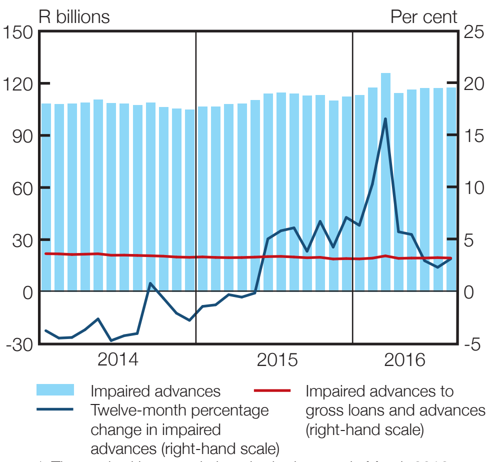


Figure 15 Impaired advances[1]



1 The marked increase in impaired advances in March 2016 was mainly due to a reclassification of impaired advances by one of the banks.

As a percentage of the total loan book, total impaired advances (non-performing loans) remained relatively stable at 3,2 per cent for the first eight months of 2016 (Figure 15). However, defaults experienced by the banks, relating to retail mortgages, small- and medium-sized enterprises (SMEs), retail revolving credit and 'other' retail exposures increased in the first eight months to August 2016 compared with the prior year.

Table 1 Selected indicators of the South African banking sector[1]

Per cent, unless indicated otherwise

	2016							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Market share (top five banks)	89,38	81,61	89,94	90,23	89,82	90,03	90,38	90,23
Gini concentration index	82,54	82,50	82,62	82,71	82,58	82,64	82,69	82,53
Herfindahl–Hirschman Index (H-index)	0,177	0,177	0,179	0,180	0,178	0,179	0,180	0,179
Banks' share prices (year-on-year percentage change)	-21,42	-19,30	-17,11	-20,98	-23,06	-15,71	-13,99	-6,13
Balance sheet								
Total assets (R billions)	4 859,8	4 892,8	4 860,5	4 776,8	4 846,2	4 846,5	4 844,4	4 873,6
Year-on-year percentage change	13,4	14,5	11,3	10,0	10,7	9,3	8,6	7,1
Total loans and advances (R billions)	3 674,4	3 726,3	3 720,6	3 641,2	3 676,7	3 697,4	3 653,3	3 709,9
Year-on-year percentage change	12,9	12,8	10,5	8,5	8,5	7,5	6,0	6,4
Capital adequacy								
Total capital adequacy ratio	13,9	13,7	13,9	14,9	14,9	15,2	15,3	15,4
Tier 1 capital adequacy ratio	11,3	11,2	11,3	12,1	12,2	12,4	12,5	12,6
Common equity Tier 1 capital adequacy ratio	11,0	10,8	10,9	11,8	11,7	12,0	12,1	12,2
Credit risk								
Impaired advances (R billions)[2]	113,4	117,7	125,9	114,4	116,4	117,4	117,4	117,6
Impaired advances to gross loans and advances	3,1	3,2	3,4	3,1	3,2	3,2	3,2	3,2
Specific credit impairments (R billions)	54,2	54,1	53,6	45,1	45,6	45,9	45,7	46,0
Specific credit impairments to impaired advances	47,8	45,9	42,6	39,4	39,1	39,1	39,0	39,1
Specific credit impairments to gross loans and advances	1,48	1,45	1,44	1,24	1,24	1,24	1,25	1,24
Profitability								
Return on assets (smoothed)	1,15	1,14	1,14	1,16	1,17	1,20	1,21	1,23
Return on equity (smoothed)	16,23	16,16	16,31	16,46	16,63	16,93	16,99	17,14
Interest margin to gross income (smoothed)	56,15	56,71	56,96	57,38	57,36	57,21	57,13	57,13
Operating expenses to gross income (smoothed)	55,38	55,67	55,41	55,32	55,42	54,97	55,01	54,90
Liquidity								
Liquid assets to total assets (liquid-asset ratio)	9,07	9,08	9,26	9,58	9,60	9,60	9,70	9,64
Liquid assets to short-term liabilities	17,22	17,40	17,42	18,76	18,79	18,83	19,29	18,97
Liquidity coverage ratio	83,41	85,42	87,71	92,55	95,27	96,41	100,14	100,57

1 Data were updated on 14 October 2016
2 Impaired advances are advances in respect of which the bank has raised a specific impairment

Sources: South African Reserve Bank; data on share prices were obtained from the JSE Limited

Although growth in net fee and commission income, net trading income and 'other' income moderated markedly during the first half of 2016 (compared to the previous year), the banking sector remained profitable (Figure 16), as measured by the return-on-equity (ROE) and return-on-assets (ROA) ratios. This improvement in profitability was brought about by a slowdown in the growth of operating expenses which more than compensated for the moderation in income growth, contributing to a stable cost-to-income ratio (Table 1) over this period. Net interest income remained the largest component of total gross income of the sector at 57,2 per cent, followed by net fee and commission income at 31,6 per cent at the end of June 2016. Staff expenses remained the largest expenditure component for banks, but growth in staff expenses moderated markedly compared to a year ago, from 10,7 per cent in August 2015 to 4,5 per cent in August 2016.

Banks maintained capital adequacy well above minimum regulatory requirements. Mainly because of transactions relating to the resolution of African Bank Limited[17] having been taken into account, total capital of the banking sector increased markedly in April 2016. The total banking sector continued to comply with regulatory requirements relating to the quality of capital (Figure 17).

Non-bank financial institutions[18]

Pension and provident funds

Pension funds could affect the stability of financial markets in several ways owing to the size of the pension fund industry, and most significantly through their investment behaviour. Hence, any sizable reallocation of funds could have a bearing on financial stability.

Assets of pension and provident funds (including both official and private self-administered funds) grew by 2,1 per cent year on year in the first quarter of 2016 (latest available data). Over the same period, the significance of the pension fund industry in the domestic economy (as measured in relation to GDP) increased marginally to 77 per cent from 76,4 per cent in the previous quarter.

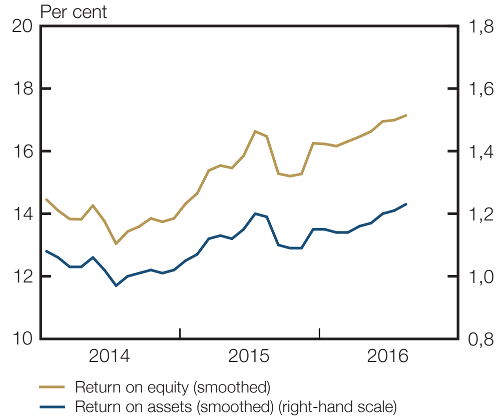
Overall, the investment allocation of the pension and provident fund industry has remained broadly unchanged over the past 10 years (Figure 18). Ordinary shares and government bonds remained the largest share in the portfolio investment allocation of pension funds.

Insurance sector[19]

Figure 19 reflects the gross written premiums of the ten largest short-term insurance companies, indicating that the market is still being dominated by four insurers that underwrite 53 per cent of the market's gross written premium.

The short-term insurance market predominantly provides cover for motor vehicles. Motor vehicle insurance makes up 45,3 per cent of the total net written premiums, while property insurance makes up 30,3 per cent. Growth in the industry was hindered by unfavourable macroeconomic factors, weather-related disruptions and shrinking disposable household income (mainly due to increased unemployment).

Figure 16 Profitability



Sources: South African Reserve Bank and First National Bank

Figure 17 Capital adequacy

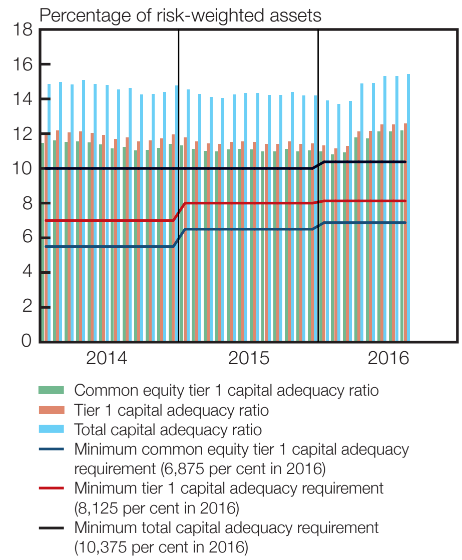
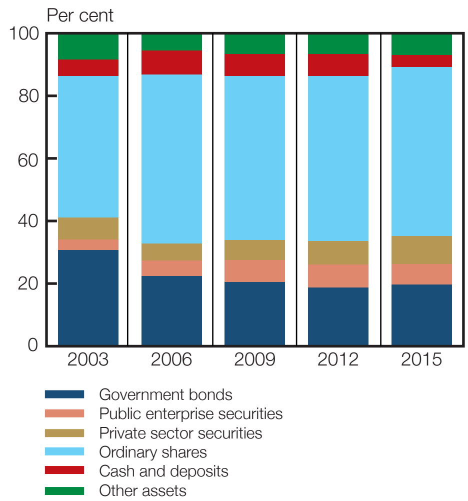


Figure 18 Investment allocation of pension funds

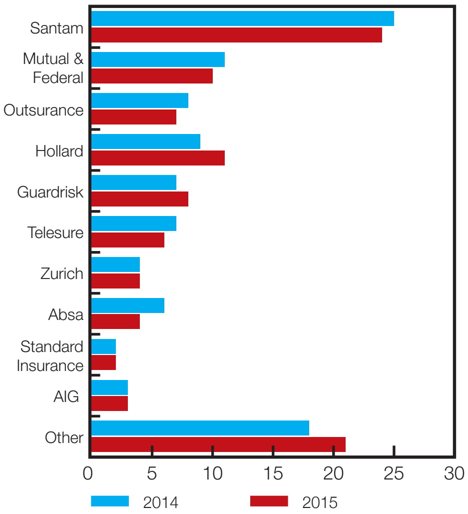


17 The resolution of African Bank was discussed in the first edition for 2016 and in the September 2014 edition of the *Financial Stability Review*. Also see Box 3 for an update on developments relating to the African Bank resolution.

18 See Box 2 for a South African perspective on shadow banking measures and challenges.

19 Also see Box 4 for a discussion of a selection of macroprudential indicators for the insurance industry.

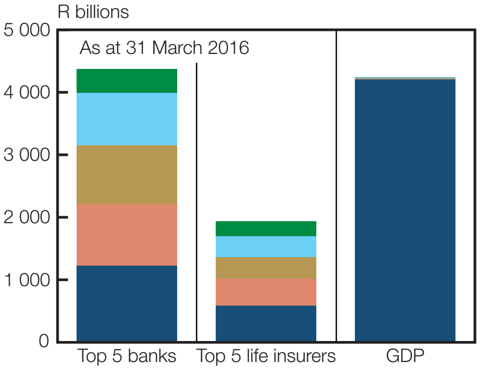
Figure 19 Gross written premiums: share of short-term insurers



Note: The gross written premiums for Absa include the premiums for Absa idirect and Absa Insurance Risk Management Services. Premiums for Telesure include premiums written by other Telesure Group short-term underwriters, being Dial Direct, Budget, First for Women, and Auto and General.

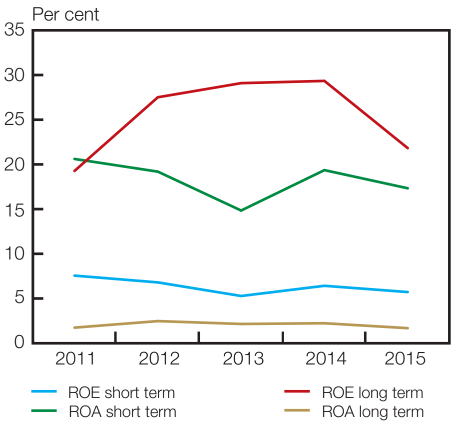
Source: KPMG

Figure 20 Gross written premiums: share of long-term insurers and banks



Sources: Financial Services Board and South African Reserve Bank

Figure 21 Investment performance of insurers



Source: Financial Services Board

The size of the top five life insurers in the domestic economy, as measured by the ratio of assets to GDP, is 47,9 per cent compared to a ratio of 103,8 per cent for the top five banks in the first quarter of 2016.

Investment returns for insurers continued to decrease during most of 2015, primarily due to economic growth challenges experienced in most of the larger economies, declining commodity prices and political concerns, especially in Europe. This was compounded by rising domestic interest rates, fears of a possible sovereign rating downgrade of South Africa and a slowing domestic economy.[20]

Non-financial institutions

Growth in credit granted to the domestic non-financial corporate sector decelerated to 12,1 per cent year on year in the second quarter of 2016 from 12,7 per cent in the first quarter (Table 2). The deceleration in credit growth was mainly caused by the weak domestic economic environment.

Table 2 Selected indicators for the corporate sector

Annual percentage change, unless indicated otherwise

Performance indicators	2015			2016	
	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Bank credit granted[1]	12,7	12,5	15,9	12,7	12,1
Gross fixed capital formation[2]	3,8	1,9	0,8	1,1	4,1
Credit as a percentage of GDP	42,6	44,3	45,6	48,2	47,9
Credit as a percentage of annualised profits[3]	192,8	233,1	261,1	253	210,3
Net operating surplus[4]	1,5	-11,8	-13,6	-9,6	3,7
Deposits	8,5	7	10,8	8,8	7,2

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

Corporate sector profitability, as measured by the net operating surplus, recovered in the second quarter of 2016, rising by 3,7 per cent year on year from a contraction of 9,6 per cent in the previous quarter. An increase in the net operating surplus from the mining and manufacturing sector, driven by a marginal recovery in metal prices and an increase in mineral sales, was the main contributor to the recovery in the profitability of corporates. Growth in credit, together with rising interest rates, has resulted in higher interest payments for corporates, making it more challenging to meet rising debt obligations. This was reflected by a decrease in the Experian Business Debt Index (BDI)[21] in first half of 2016. The BDI turned negative in the first quarter of 2016 but recovered somewhat in the second quarter to 0,091 index points, indicating that businesses (particularly the small business sector) had begun taking strain as domestic financial conditions deteriorated.

20 KPMG, *The South African Insurance Industry Survey*, 2016.

21 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.

Despite the weaker financial position of corporates, growth in gross fixed investment by the private sector accelerated by 4,1 per cent year on year in the second quarter from 1,1 per cent in the first quarter. This was due to ongoing business projects and an increase in investments in additional capacity aimed at increasing profits amid subdued demand and the rising cost of credit.

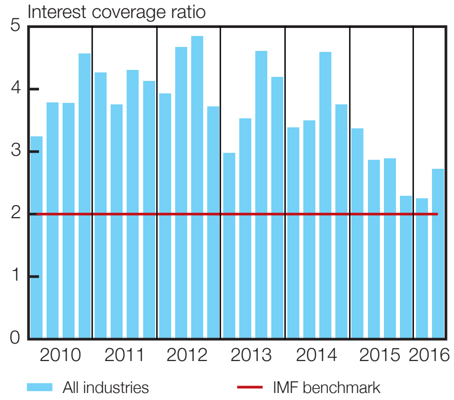
Table 3 Business confidence index[1]

Indices	2015			2016	
	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Business confidence index	43	38	36	36	32
New vehicle dealers' confidence	23	27	19	24	25
Retail traders' confidence	52	34	40	44	26
Wholesale traders' confidence	64	50	47	50	47
Building contractors' confidence	48	45	39	43	38
Manufacturers' confidence	29	34	34	18	23

1 The business confidence level is measured on a scale of 0 to 100, where 0 indicates 'an extreme lack of confidence', 50 'neutral' and 100 'extreme confidence'

Source: Bureau for Economic Research, Stellenbosch University

Figure 22 Non-financial corporate sector[1]: aggregate interest coverage ratio



1 Excluding public administration, defence activities and education

Sources: Statistics South Africa, International Monetary Fund and South African Reserve Bank

Business confidence deteriorated further in the second quarter of 2016 (Table 3) due to a weak domestic economic environment, rising import costs and lower export growth. New vehicle dealers' confidence rose marginally in the second quarter to 25 index points but remained weak as lower disposable income growth, rising interest rates and higher new vehicle prices continued to weigh on the sales volumes of vehicles.[22] Given the strong correlation between business confidence and investment, a continued fall in confidence could have adverse effects on future economic developments.

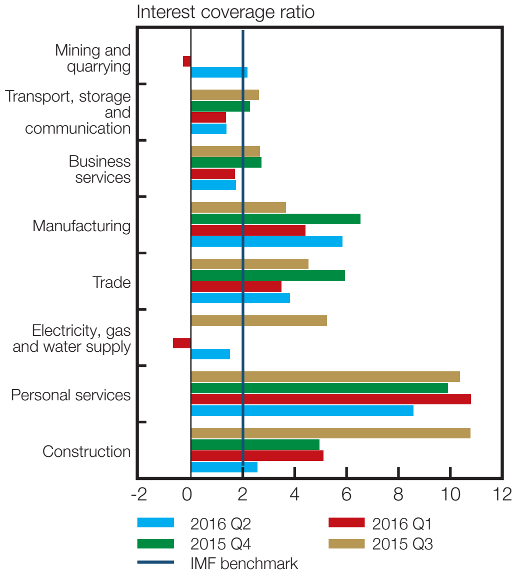
Over the years, the importance of the international debt securities market to non-financial corporates in South Africa has been increasing. This trend has been in line with other emerging markets that have increased leverage by borrowing in foreign currencies, albeit at much lower levels in South Africa.

Since the beginning of 2015, there has been an increase in the issuance of both domestic and international debt securities. However, there was a decrease in the total debt securities outstanding in the first quarter of 2016 owing to a fall in the rate of issuance of domestic debt securities as a result of the current low global interest rate environment that has made international debt securities more attractive and cost efficient than domestic debt securities. As at the first quarter of 2016, South African non-financial corporates had total debt securities outstanding of US$10,94 billion.

Of the US$10,94 billion international debt securities outstanding issued by South African non-financial corporates, 16,0 per cent was local currency-denominated, 21,6 per cent was in European currencies (the euro and legacy currencies, including the British pound) and 62,4 per cent was US dollar-denominated. The rise in foreign currency-denominated debt over the years could pose concerns as domestic borrowers could be vulnerable to rollover and foreign currency risk, which could negatively affect the creditworthiness

22 Bureau for Economic Research, *Retail Trade Survey*, Quarter 2, June 2016.

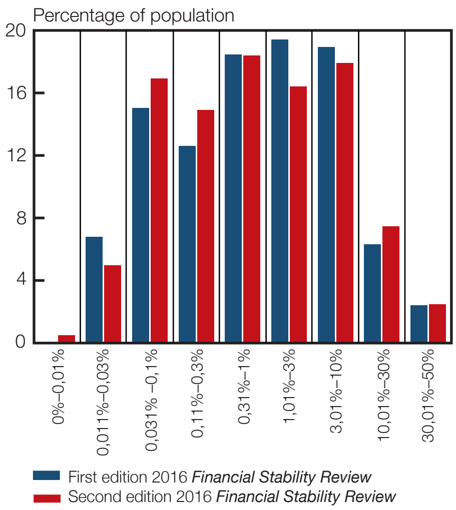
Figure 23 Non-financial corporate sector[1]: sectoral interest coverage ratio



1 Excluding public administration, defence activities and education

Sources: Statistics South Africa, International Monetary Fund and South African Reserve Bank

Figure 24 Expected default frequency distribution of South African non-financial companies



Source: Moody's Analytics; CreditEdge

of these corporations and result in higher borrowing costs and tighter lending conditions. This would make it difficult for these corporations to service their debt and access funds to finance large projects. Furthermore, higher bond yields could also lead to losses for the holders of corporate bonds (which include local banks), while foreign-denominated debt could expose domestic corporates to external shocks.

However, given that leverage levels of South African non-financial corporates borrowing in foreign currencies are still relatively low, there are no serious financial stability risks at present. These developments will be monitored continually.

The interest coverage ratio (ICR)[23] is an estimation of a firm's ability to generate cash flows to finance its interest expense on outstanding debt. According to the IMF, 'weak firms' are those with an ICR below 2. The ICR for South African corporates increased in the second quarter of 2016 to 2,72 but remained close to the benchmark. This indicates that South African corporates have generated enough cash flow over the past year to service their commitments.

At an industry level (Figure 23), three of the industries' coverage ratio remained below the ICR benchmark of 2 in the second quarter of 2016. The manufacturing, trade, personal services, construction, and mining and quarrying are the industries with ICRs higher than the benchmark. While corporates generated sufficient cash to service their debt during the second quarter of 2016, some appear to be more constrained compared to 2015 as subdued domestic and international economic growth prospects weighed negatively on net profit. The ICR for the mining sector rose to 2,17 in the second quarter of 2016 as a result of an increase in the industry's net profit.

The expected default frequency (EDF) of a firm measures the probability that a firm's future market value will be insufficient to meet its future debt obligations. Over 70 per cent of South African corporates have EDFs below 3 per cent (Figure 24), implying that there is a less than 3 per cent probability that these corporates would not be able to honour their debt obligations in the following year. Of the 201 South African companies included in the portfolio, 145 have an EDF of 3 per cent or less. However, the distribution of firms' EDFs has shifted since March 2016, to a higher percentage of firms with higher EDFs, implying that more South African corporates are now more likely to default. Of particular concern is that five corporates have an EDF above 30 per cent. As at 14 September 2016, South African non-financial corporates recorded an average one-year EDF of 3,47 per cent. The debt rating of the domestic non-corporate sector stood at Caa1 (based on the correlation between implied ratings by S&P and the EDF credit measures), indicating a very high credit risk of non-financial corporates.

Households

Growth in household disposable income moderated to 6,9 per cent year on year in the second quarter of 2016 from 7,2 per cent in the first quarter (Table 4). Household consumption expenditure rose by 1 per cent year on year in the second quarter from 0,8 per cent in the previous quarter.[24]

As a result of the deceleration in disposable income, household savings declined by 0,8 per cent in the second quarter, suggesting that households are allocating a bigger portion of their income to consumption and debt servicing, leaving less room for saving. Nonetheless, household wealth increased by 5,5 per cent in the second quarter due to a larger decrease

23 The ICR is calculated by dividing a firm's earnings before interest and taxes (EBIT) by its annual interest expenses.

24 Unisa, *Consumer Financial Vulnerability Index Report*, Quarter 2, June 2016.

in household liabilities than assets. According to the Momentum South African Household Wealth Index,[25] the slowdown in growth of household liabilities is due to the higher interest rate and the decrease in durable goods consumption that is normally financed by credit. Household assets, however, have been growing due to increases in financial assets which can be attributed to growth in pension funds, a decline in claims paid and a higher return on investments. Households appear to be continuing to adjust to the current economic environment of inflationary pressures and rising interest rates.

Table 4 Selected indicators for the household sector

Annual percentage change, unless indicated otherwise

	2015			2016	
	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Nominal disposable income	6,6	6,2	6,6	7,2	6,9
Financial assets	4,2	3,1	4,3	3,1	4,5
Total assets	5,3	4,2	4,9	4,4	5,3
Net wealth[1]	5,4	4	4,8	4,3	5,5
Real consumption expenditure	1,7	1,6	1,7	0,8	1
Consumption expenditure to GDP	60,1	60,6	60,2	59,6	59,6
Capital gearing[2]	16,5	16,7	16,6	16,3	16,3
Credit extension	3,5	4,3	4,5	4,6	2,1[3]
Mortgage advances extended to households	4,8	6	6,2	6,2	6
Mortgage debt as a percentage of household disposable income	38	37,9	37,7	37,5	37,0
Savings as a percentage of disposable income	-1,1	-1,1	-1,2	-0,7	-0,8
Debt as a percentage of disposable income	77	76,7	76,3	75,7	75,1
Debt as a percentage of GDP	45,8	45,9	45,4	44,8	44,4
Debt-service cost of household debt	8,9	10,1	9,9	12,7	12,9
Debt-service cost as a percentage of disposable income	9,2	9,3	9,4	9,7	9,8
Debt	4,4	4,9	4,9	4,6	4,2
FNB Household Debt Service Risk Index	5,91	5,82	5,73	5,54	n/a

1 Household net wealth is defined as total assets of households less total financial liabilities
2 Capital gearing' refers to household debt as a percentage of total assets of households. Data are preliminary
3 Technical correction in April due to the restructuring of a bank

Sources: South African Reserve Bank and First National Bank

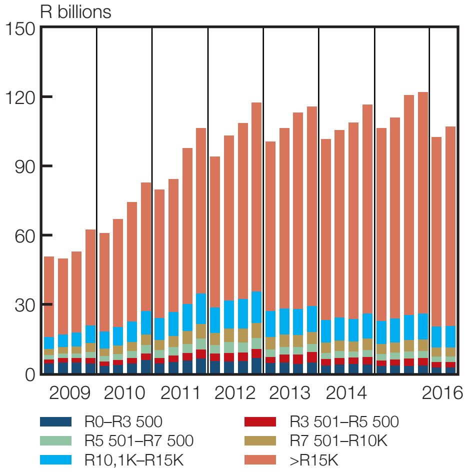
The rising interest rate cycle resulted in some deleveraging by domestic households. As the ratios of debt to disposable income and debt to GDP indicate, in the first quarter of 2016 household debt grew at a slower rate than income (Table 4). Growth in household debt decreased by 4,2 per cent year on year in the second quarter compared to 4,6 per cent in the previous quarter. The cost of household debt increased by 12,9 per cent year on year in the second quarter from 12,7 per cent in the previous quarter. Although growth in household debt decreased in the first half of 2016, households remain vulnerable to possible interest rate rises or economic shocks, as reflected in the deterioration in the First National Bank (FNB) Household Debt Service Risk Index[26] in the first quarter of 2016. The index is currently at 5,54 index points, suggesting that households remain in the 'high risk' range.[27]

25 Momentum/Unisa, *Summary: South African Household Wealth Index*, Quarter 1 2016.

26 The FNB Household Debt Service Risk Index is compiled from three variables, namely the debt-to-disposable-income ratio of the household sector, the trend in the debt-to-disposable-income ratio, and the level of interest rates relative to the long-term average (five-year average) consumer price inflation.

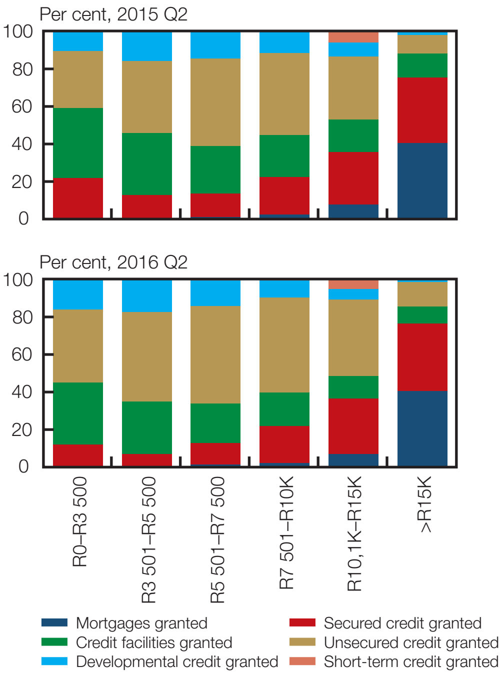
27 An index can vary between 1 and 10; 1–3,4 means 'low risk'; 3,5–5,4 means 'medium risk'; and 5,5–10 means 'high risk'.

Figure 25 Credit extended to consumers by gross monthly income level



Source: National Credit Regulator, *Consumer Credit Market Report*, second quarter, June 2015 and June 2016

Figure 26 Credit extended to consumers by type of credit and gross monthly income level



Source: National Credit Regulator, *Consumer Credit Market Report*, second quarter, June 2015 and June 2016

The growth in credit extended to households slowed to 2,1 per cent year on year in the second quarter of 2016 from 4,6 per cent in the previous quarter, largely owing to slower growth in general loans and advances, and overdrafts. Growth in mortgage advances also slowed to 6 per cent year on year from 6,2 per cent in the first quarter. Furthermore, mortgage debt as a percentage of household disposable income dropped to 37 per cent, indicating that household income grew at a slightly faster pace than mortgage advances. According to the National Credit Regulator,[28] the value of mortgage advances decreased by 1,17 per cent year on year in the second quarter while the number of new agreements entered into decreased by 19,24 per cent. Overall, the number of applications for credit decreased by 17,99 per cent with a rejection rate of 54,4 per cent, up from 53,76 per cent in the first quarter of 2016, indicating a decline in demand for credit amid tighter lending standards. Given the rising interest rate cycle and subdued economic activity domestically, growth in credit extension is likely to remain subdued in the short to medium term.

While credit growth decreased in the second quarter of 2016, consumers with a relatively higher gross monthly income (more than R15 000) still held a larger share of total credit granted (Figure 25), with the lowest-income consumers only making up 2,4 per cent of total credit granted in the second quarter of 2016. Furthermore, credit granted to all consumers has decreased since the fourth quarter of 2015, with the lowest-income consumers recording the biggest decline of 27,87 per cent year on year. The growth in high-earning consumers' credit decelerated by 0,92 per cent year on year, making up almost 80,83 per cent of the total credit extended in the second quarter of 2016 from 80,23 per cent in the fourth quarter of 2015.

It is important to note that higher-income earners demand mostly secured credit. In the second quarter of 2016, 40,58 per cent of the total credit granted to consumers who earn more than R15 000 per month was made up of mortgages, while only 13,27 per cent was made up of unsecured credit. There has been a slight shift in the credit composition for all income classes, particularly those who earn less than R7 500 per month. Since the second quarter of 2015, mortgages granted and secured credit granted to consumers have been on a declining trend. The largest year-on-year decline (20,83 per cent) related to consumers who earn less than R10 000 per month.

The comparative rise in unsecured credit granted versus secured credit granted mainly related to high-income earners. According to the Momentum Household Wealth Index distribution analysis, secured debt (which includes mortgages and vehicles) decreased as a result of the increase in debt-service costs. The spread between the average interest rates that households face in South Africa[29] and the prime rate has mostly increased since the beginning of 2013 (Figure 27). The debt composition of household credit has played a role in the increase in the cost of credit. There has been a significant decrease in the mortgage advances portion of total loans which has been accompanied by a similar increase in the general loans and advances portion of total loans. Since general loans and advances usually earn higher interest rates than loans on mortgages, a part of the increase in the spread can possibly be attributed to this shift in composition.

As a result of a higher moderation in growth of household debt relative to income, the household debt-to-disposable-income ratio has continued to decrease since its peak in the first quarter of 2008 (Figure 28). Households appear to have managed to meet debt repayment obligations, as reflected in

28 National Credit Regulator, *Consumer Credit Market Report*, second quarter, June 2016.

29 This is calculated by taking the financing cost of household debt and dividing it by total household debt.

impaired advances (as a percentage of total loans and advances) remaining relatively unchanged. Therefore, even as higher interest rates have increased pressure on household finances, there has been a limited effect on the asset quality of banks.

The First National Bank/Bureau for Economic Research (FNB/BER) Consumer Confidence Index (CCI) fell to -11 index points in the second quarter of 2016 from -9 index points in the previous quarter (Figure 29) and remained well below the long-term average reading of 5 index points. Most sub-indices of the CCI dropped in the second quarter of 2016. The decline in the 'financial position' and 'economic outlook' sub-indices reflected the concerns of consumers on the outlook for domestic economic growth, household finances and persistently high levels of unemployment.

The MBD Credit Solutions/Bureau of Market Research (MBD/BMR) Consumer Financial Vulnerability Index (CFVI)[30], in line with the CCI, decreased to 50,71 index points in the second quarter of 2016 from 51,23 index points in the first quarter of 2016. The decrease in the second quarter was mainly driven by consumers' perceptions of becoming more insecure with regard to their debt-service capabilities given the rising debt-service cost to disposable income. The deterioration in the index could largely be attributed to a decrease in the 'savings', 'debt-servicing' and 'expenditure vulnerability' scores, indicating that consumers feel unable to adequately cover their expenses and increase their savings.

While other sub-indices are categorised as 'mildly exposed', the 'savings' and 'debt servicing vulnerability' index continues to be categorised as 'very exposed', making households' debt-servicing ability their biggest concern. The increases in basic food and fuel prices, among other things, are expected to further weigh on households' ability to service existing debt.

Residential real estate

Housing market developments are important as they serve as an indication of the health of a financial system, credit trends and confidence levels in the economy. Domestic residential real estate contributes about 21 per cent of households' total assets, while mortgage advances is the largest component of banks' assets, accounting for over 60 per cent of total credit. Hence, house prices have a large impact on the balance sheets of both households and banks.

The slowdown in house price growth that began in the second half of 2014 continued in 2016. On average, growth in house prices moderated to 5,4 per cent year on year in the second quarter of 2016, down from 5,7 per cent[31] in the first quarter. Similarly, growth in mortgage advances moderated to 4,1 per cent year on year from 4,5 per cent (Figure 30).

The mortgage instalment-to-rent and house price-to-rent (P/R) ratios (Figure 31) reflect the affordability and profitability of owning residential property in South Africa. In theory, rising interest rates should lead to an upward movement in the P/R ratio[32] through higher repayment instalments over time. However, the higher the loan repayments relative to rental payments, the lower the demand to buy. Therefore, a decline in real house prices (a situation where inflation outstrips nominal house-price growth) is represented by a decrease in the P/R ratio.

30 Compiled by MBD Credit Solutions and the Bureau of Market Research, Unisa.

31 Calculated by taking the average of the three house price indices' growth rates.

32 This ratio determines the expected value of benefits derived from home ownership received in the form of rent by owners or savings by owner-occupiers.

Figure 27 Spread between average household borrowing interest rates and prime rate

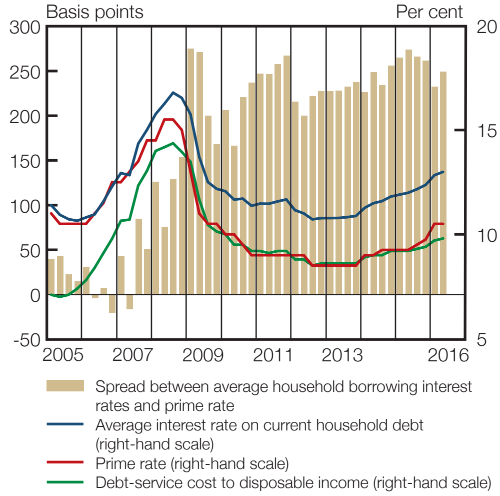


Figure 28 Household debt and impaired advances

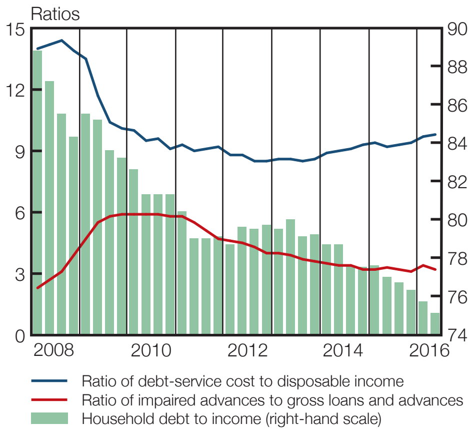
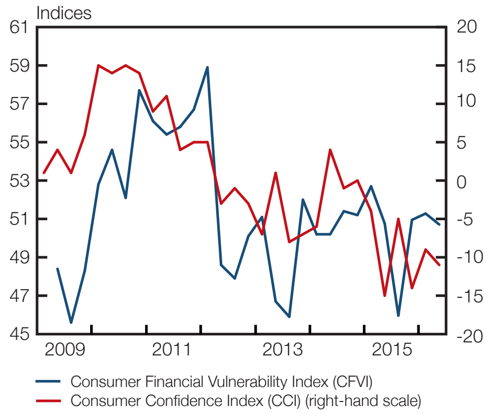


Figure 29 Consumer Financial Vulnerability Index[1] and the Consumer Confidence Index[2]

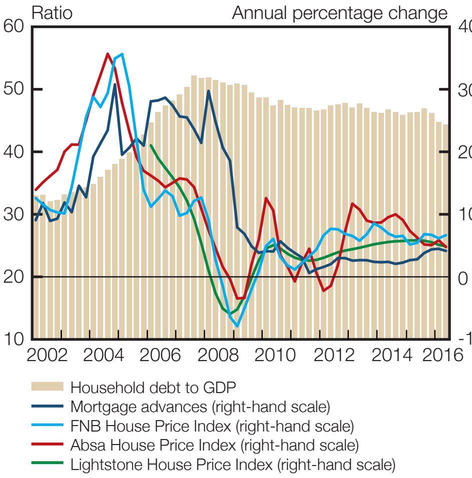


[1]0–20 means 'financially very vulnerable', 20–39,9 'financially vulnerable', 40–49,9 'financially very exposed', 50–59,9 'financially mildly exposed', 60–79,9 'financially secure' and 80–100 'financially very secure'.

[2]The consumer confidence index is expressed as a net balance between optimistic and pessimistic consumers. According to the Bureau for Economic Research (BER) at Stellenbosch University, the index can vary between -100 for 'extreme pessimism' and 100 for 'extreme optimism', with 0 being 'neutral'.

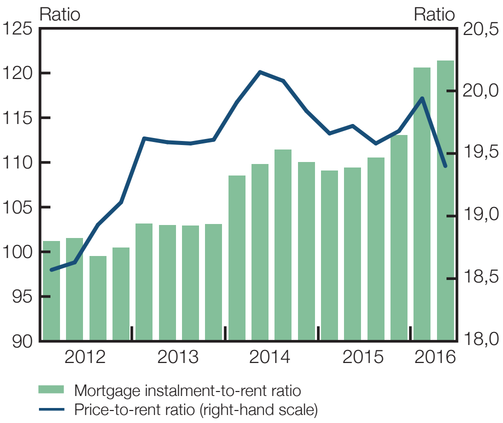
Sources: MBD Credit Solutions and Bureau of Market Research, Unisa; FNB/BER, Stellenbosch University

Figure 30 House price indices and mortgage advances



Sources: South African Reserve Bank, Absa Bank Limited, First National Bank and Lightstone Property

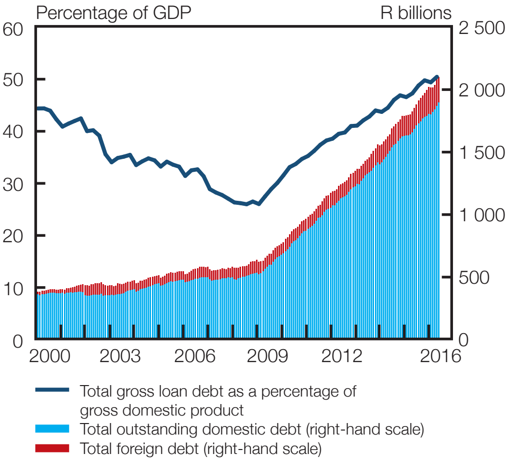
Figure 31 Mortgage instalment-to-rent and price-to-rent[1] ratios



[1] A ratio of 6–15: more affordable to buy; 16–25: renting less expensive but buying might be better; 26–35: more affordable to rent

Sources: Absa Bank Limited, Statistics South Africa and South African Reserve Bank

Figure 32 Loan debt of national government



There has, however, been a notable uptick in the ratio of mortgage instalments to average rent since the beginning of 2016, mainly due to an increase in the cost of home ownership (rates and taxes, for example) and the repayment burden. This could place additional stress on already highly leveraged investors in buy-to-rent properties.

The FNB/BER Building Confidence Index[33] fell for a second consecutive quarter to 34 index points in the second quarter of 2016. This was the lowest confidence level in the building sector since December 2012. Lower levels of confidence were evident across all building subsectors measured in the second quarter, with the largest drop in confidence recorded in building material and hardware retailers.

Government finances

Government's gross debt continued to trend upwards in the first six months of 2016, increasing to R2 098 billion in June (Figure 32). As a percentage of GDP, it decreased marginally quarter on quarter to just below 50 per cent. When compared to other BRICS countries – Brazil, Russia, India and China – South Africa's government debt-to-GDP ratio forecast for 2016 is lower than that of Brazil and India (Figure 33). These IMF estimates suggest that South Africa's ratio could taper off in the coming years.

Pension and provident funds are still the biggest holders of government debt at R535 billion at the end of the first quarter of 2016.[34] Both pension and provident funds as well as banks increased their holdings of public debt during the first quarter of 2016, while insurers' holdings fell to R197 billion. Banks held R260 billion at the end of March 2016.

Concerns have been raised about a possible sovereign credit rating downgrade to sub-investment grade by year-end, owing to South Africa's deteriorating economic growth prospects and fiscal sustainability. Moody's and S&P have kept the country's sovereign credit rating unchanged at investment grade in 2016, but maintained a negative outlook (Table 5). Sluggish global and domestic growth, heightened domestic political risk, low business confidence levels, a continued increase in government debt, a persistently wide current-account deficit and slow implementation of the National Development Plan remain some of the key threats to the country's sovereign credit rating, due for reassessment in December 2016. The current-account deficit narrowed from a revised 5,3 per cent of GDP in the first quarter of 2016 to 3,1 per cent in the second quarter as a weaker rand stimulated exports. The current-account deficit is expected to remain more or less stable over the next few years and the budget deficit is forecast to fall from 3,2 per cent in 2016/17 to 2,8 per cent in 2017/18.[35] To achieve this, government intends lowering expenditure and increasing tax revenue, as was again highlighted in the Medium Term Budget Policy Statement 2016.

33 The FNB Building Confidence Index measures the business confidence of all the major role players and suppliers involved in the building industry such as architects, quantity surveyors, contractors, sub-contractors, retail merchants, and manufacturers of building materials. The index is compiled quarterly from the building, manufacturing, retail and wholesale opinion surveys undertaken by the Bureau for Economic Research at Stellenbosch University. *FNB/BER Building Confidence Index*, Johannesburg: FNB/BER, 17 September 2014.

34 Latest available data for pension and provident funds.

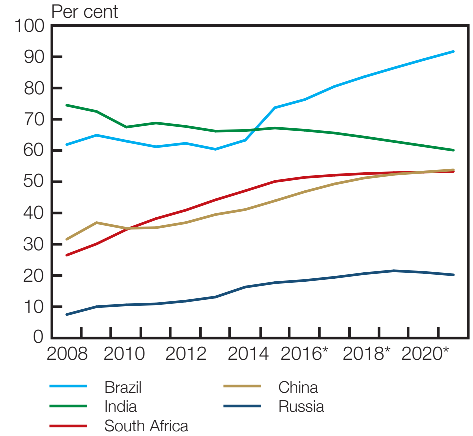
35 National Treasury, *Budget Review*, 24 February 2016.

Table 5 Sovereign debt ratings for South Africa

Agencies	2015			2016	
	2nd qr	3rd qr	4th qr	1st qr	2nd qr
Moody's Investor Services	Baa2 Stable	Baa2 Stable	Baa2 Negative	Baa2 Negative	Baa2 Negative
Standard & Poor's	BBB- Stable	BBB- Stable	BBB- Negative	BBB- Negative	BBB- Negative
Fitch Ratings	BBB Negative	BBB Negative	BBB- Stable	BBB- Stable	BBB- Stable

Sources: Moody's Investor Services, Standard & Poor's and Fitch Ratings

Figure 33 General government debt-to-GDP ratios* of BRICS countries



* Data after 2015 for China and South Africa and data after 2014 for Brazil, India and Russia are International Monetary Fund estimates

Source: International Monetary Fund

Adequacy of foreign exchange reserves

After peaking at just below US$12 trillion in the second quarter of 2015, global reserve holdings shrank to about US$11 trillion in the first quarter of 2016. A lower oil price prompted significant reserve depletion in oil-exporting countries. Should reserve holdings fall further, it could raise global inflationary concerns, disrupt balance sheets and negatively impact on global growth.[36] Deterioration in the global economic outlook and heightened financial market volatility might further shift attention back to foreign reserve holdings as a stabilising mechanism. The Guidotti ratio[37] (GR) for South Africa remained at 1,26 in the second quarter of 2016. The level of the GR shows that, should foreign exchange market access suddenly be reduced, sufficient reserves would be available to service short-term external debt due within the next year.

To develop a more comprehensive picture, the GR is extended to take into account the current account deficit,[38] from which the augmented GR (AGR) is derived. For the second quarter of 2016, the AGR improved from 0,89 to 1,01 in the first quarter – the first time since 2010 the level was higher than the threshold of 1. The level of the AGR suggests that existing foreign exchange reserves are above the country's total external financing needs by about 1 percentage point.

In June 2016, the more traditional guideline of reserve adequacy, namely the import coverage ratio, decreased to 5,3 months from 5,6 months in March, but is still well above the traditional requirement of three months. The international reserves to broad money supply[39] (M2) ratio, which is often used as a measure of reserve adequacy for countries with a relatively large banking sector and open capital markets such as that of South Africa, decreased to 28,4 per cent at the end of June 2016 but remained above the prudent level of 20 per cent.[40] Reserves are important for maintaining liquidity, absorbing shocks and providing confidence. The IMF regards the current level as not quite adequate due to South Africa's high short-term external financing requirements.[41]

Figure 34 Public debt holdings by domestic financial institutions

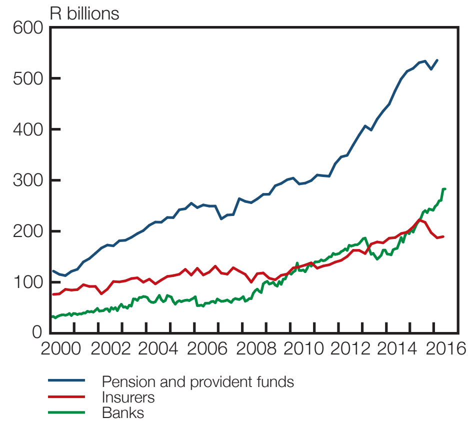
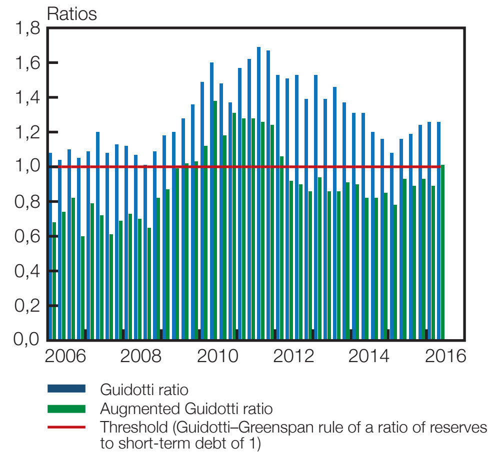


Figure 35 Reserve adequacy for South Africa



36 International Monetary Fund, *Global Financial Stability Report*, April 2016.

37 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.

38 The current account deficit serves as a proxy for total external financing needs.

39 Broad money supply refers to M1 plus other short- and medium-term deposits held by the domestic private sector.

40 International Monetary Fund, *Assessing Reserve Adequacy: Specific Proposals*, April 2015.

41 International Monetary Fund, *Global Financial Stability Report*, April 2016.

Box 1: Impact of negative interest rates on global pension funds and insurance companies

Introduction

Since the onset of the 2007–08 global financial crisis, central banks have been reducing interest rates to decrease borrowing costs and support growth in their respective economies. Central banks also began purchasing bonds to increase money supply (and hence, inflation) in their respective countries, which has resulted in declining government bond yields. These actions have benefited debt holders at the expense of savers, particularly in many European countries.

In an environment of a negative interest rate policy (NIRP), pension and life insurance companies are finding it increasingly difficult to meet their long-term liabilities of pension or life insurance policy payouts, offered at fixed nominal rates.[1] Many European and Japanese life insurance companies have guaranteed payouts exceeding 10-year government bond yields and are likely to face significant pressure. Insurance companies or pension funds might be constrained to hold government bonds by prudential requirements, hence contributing to a demand surplus and a further downward pressure on yields.

According to the Organisation for Economic Co-operation and Development (OECD), the current low global interest rate environment poses a significant risk for the long-term financial viability of pension funds and insurance companies that seek to generate sufficient returns to meet obligations.[2] Of concern is that these pension funds and life insurance companies could become involved in the 'search for yield' in an attempt to match the levels of returns promised to policyholders and beneficiaries during previous periods when interest rates were higher.

Impact of low bond yields on insurers

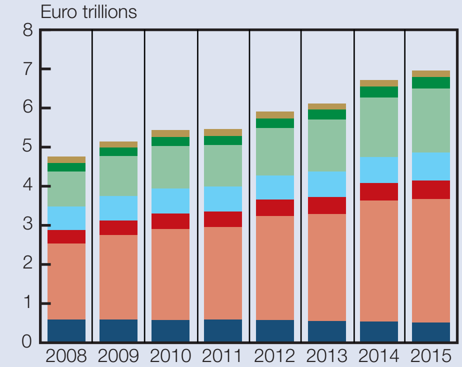
There is general consensus that the current low interest rate environment constitutes the main risk for the European insurance industry.[3] This is mainly due to two generic characteristics of insurers' business models, namely (i) the large amount of fixed-term investments that insurers have on their balance sheet; and (ii) the strong influence of long-term interest rates on the discount rate of insurance liabilities.

Insurers are affected by low yields, mainly through two channels. Firstly, there is a slow-moving 'income channel' whereby, owing to the sector's high exposure to long-term fixed income assets, investment income will suffer as the net cash flow from paid premiums and maturing investments needs to be gradually reinvested at lower rates (Figure 1A). Data from the European Insurance and Occupational Pensions Authority (EIOPA) Insurance Stress Test 2014 show that the average duration of government bonds on the balance sheets of insurers pertaining to the low-yield exercise amounted to 8,6 years at the end of 2013.[4]

Secondly, the 'balance-sheet channel' reflects that low interest rates will tend to have an impact on the balance sheet via a valuation effect, as low rates increase the values of both assets and liabilities. A market-consistent valuation of assets and liabilities, as prescribed in Solvency II, typically results in higher increases in the value of liabilities when long-term yields decline because the magnitude of the assets invested in fixed-term instruments is a fraction of the total liabilities. In addition, the duration of the liabilities is often longer than that of assets. Hence, whereas the impact on profitability through the investment income channel takes longer, a low-yield environment can affect the solvency of the insurers directly and immediately through the balance-sheet channel, with those insurers with large duration mismatches being the most vulnerable to this channel.

Many insurers, like other long-term investors, have tried to address the challenge of low and negative interest rates by extending the search for yield, including taking on more duration, credit and market risk, as well as moving into equities and alternative asset classes such as real estate to generate higher returns.

Figure 1A Assets of euro area insurance corporations



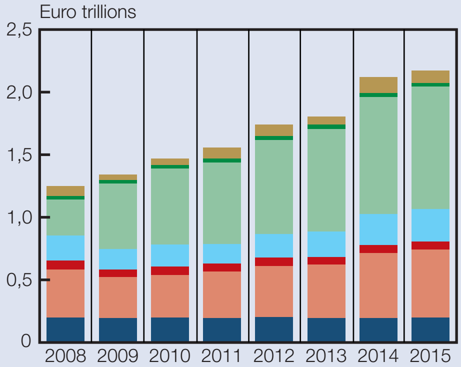
Source: European Central Bank

Impact of low yields on pension funds

One of the key asset classes in any retirement portfolio is fixed-income securities, which include long-term government bonds. Lower interest rates will therefore lead to lower accumulated assets to finance retirement. Pension funds in the euro area invest around 25 per cent of their assets in fixed-income securities (Figure 1B).

The impact of low interest rates on assets depends on whether a pension is of the defined benefit (DB) or defined contribution (DC) type. In DB pension plans, pension funds take contributions and manage the assets in exchange for a certain level of income at retirement. The impact of low interest rates on people saving for retirement in the DB pension plan is, in principle, negligible, as they are promised a certain level of income irrespective of the amount of assets accumulated. The DB pension fund therefore bears the risk of the accumulated assets being lower than what would be needed to fulfil the income promise.

Figure 1B Pension fund asset allocation in the euro area



Source: European Central Bank

Box 1: Impact of negative interest rates on global pension funds and insurance companies (continued)

The impact of low interest rates on people saving in DC pension plans is a reduction in the amount of assets accumulated to finance retirement and an increase in annuity payouts, which can affect the adequacy of retirement income. In DC pension plans, pension funds collect contributions and manage the assets, but they are not involved in providing retirement income. Individuals need to allocate the assets accumulated at retirement to finance old age in DC pension plans.

One common way to allocate assets to finance retirement is to buy a life annuity. When an individual buys a life annuity at retirement, falling interest rates will reduce the amount of pension benefit payments that the assets accumulated can acquire. The decline in rates has a direct effect on the retirement savings of members with a DC plan through lower assets accumulated and lower pension income those assets can provide.

DB pension funds in the United States were underfunded in the region of US$4 trillion in the first quarter of 2016 compared to US$1,8 trillion in 2007[5] and these plans face the risk of becoming more underfunded. The United Kingdom DB pension deficits increased to a record US$1,3 trillion, after the latest interest rate reduction by the Bank of England in August 2016.

According to a recent report by Citibank,[6] the value of the top 20 OECD countries, the value of their unfunded and underfunded public pension liabilities amounted to US$78 trillion compared to US$44 trillion of national debt.

Conclusion

The environment of low interest rates, which is expected to prevail for a bit longer, poses serious problems for the adequacy of retirement income. It also poses challenges for pension funds and life insurance companies (particularly DB pension funds) whose solvency positions could deteriorate further unless firms actively adopt relevant risk management strategies.

In essence, the main concern about low or negative interest rates is the extent to which pension funds and insurance companies have or might have become involved in the 'search for yield' in an attempt to match the level of returns promised to beneficiaries or policyholders when financial markets were delivering higher returns – hence increasing solvency risks. Overall, a protracted period of low interest rates calls for proactive regulatory initiatives as well as greater supervisory scrutiny in the form of regular monitoring by pension and insurance supervisors. Such monitoring should include stress tests that reflect the impact of protracted low interest rates.

From a South African perspective, pension funds and insurance companies have not been exposed to the unintended consequences of an NIRP, largely because an NIRP has not been a policy option, owing to country-specific macrofinancial conditions. Nonetheless, it is important that supervisors of these funds continue to monitor global developments and take note of lessons learnt for future financial stability policy considerations.

1 See the Bank for international Settlements document titled 'Ultra-low or negative interest rates: what they mean for financial stability and growth' dated April 2015.

2 Organisation for Economic Co-operation and Development, *Business and Finance Outlook*, June 2015.

3 For recent evidence, see, for example, past editions of the European Central Bank's *Financial Stability Review* and the EIOPA *Financial Stability Report*, as well as the EIOPA Insurance Stress Test 2014.

4 See the EIOPA Insurance Stress Test 2014, available at https://eiopa.europa.eu/Publications/Surveys/Stress%20Test%20Report%202014.pdf

5 Institute of International Finance, *Capital Markets Monitor*, September 2016.

6 Citigroup, *The Coming Pensions Crisis*, March 2016.

Box 2: A South African perspective on shadow banking

Shadow banking generally refers to the facilitation of credit extension involving entities and activities fully or partially outside the regular banking system. Unregulated activities conducted by banks also fall in the shadow banking space. There are several reasons why non-bank financial intermediation is of importance, both from a regulatory perspective and an economy view. It is important to not only measure the size of this sector but also to determine the extent of exposures that such shadow banks have to other financial intermediaries, domestically as well as globally.

The shadow banking system remains somewhat opaque and not fully understood due to data limitations. This could lead to systemic risks emerging unnoticed. The Financial Stability Board coordinates an annual global shadow banking monitoring exercise, and has formed several working groups, in order to develop recommendations to strengthen the regulation and oversight of the shadow banking system. Cross-country aggregations are challenging given the nature of the shadow banking industry and activities.

South Africa has been participating in this exercise since 2012. The global exercise consists of first 'casting the net wide', to include all possible shadow banking activities, and then narrowing it down to arrive at a more accurate shadow banking activity measure. The category 'other financial intermediaries' (OFIs) comprises all entities except central banks, banks, pension funds, insurance companies or public financial enterprises. In South Africa's case, OFIs are made up of collective investment schemes (CISs), finance companies, securitisation schemes, real-estate investment trusts (REITs) and trust companies.[1] Following the Financial Stability Board's approach to measuring shadow banking, the distribution of financial assets between financial intermediaries in South Africa is shown in Figure 2A.

Banks and pension funds hold the largest share of financial assets in South Africa. After the onset of the global financial crisis, assets of pension funds and OFIs increased at a faster pace than those of banks, resulting in a decrease in the share of banks' assets as a percentage of total financial assets between 2008 and 2014. At the same time, the default risk for South African banks as a collective increased. This trend reversed in 2013. In 2014 and 2015 the banks' share of financial assets increased and was mirrored in the general decrease in banks' credit default swaps (CDS) spread between 2013 and 2015.

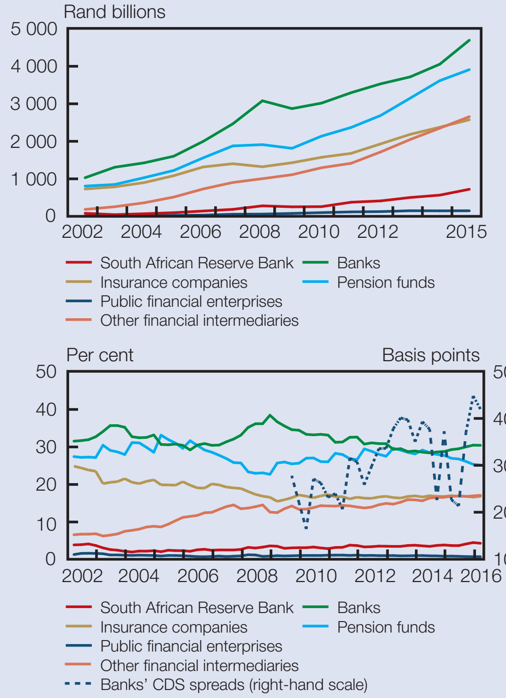
In order to accurately measure shadow banking, activities that do not adhere to the financial stability definition should be removed from the OFI measure, while activities by pension funds and insurance companies that are related to credit intermediation or the facilitation of credit should be added.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

Shadow banking entities or activities comprise money-market funds (MMFs), multi-asset funds, fixed-income funds, hedge funds, fund of funds, participation bond schemes, finance companies and securitisation schemes.

Pooled investment funds make up the largest portion of the shadow banking measure, representing 75 per cent of the narrow measure. Given that these funds are regulated by the Financial Services Board, policy tools can be used to mitigate potential risks. However, it should be emphasised that while these funds are regulated from a micro perspective, there is currently no macroprudential supervision.

Less regulated activities include finance companies (representing 18 per cent of shadow banking activities), which are only regulated from a market conduct perspective, and securitisation activities, for which there are no tools currently available to limit financial stability risks emanating from these types of activities apart from the listing requirements from the JSE Limited.

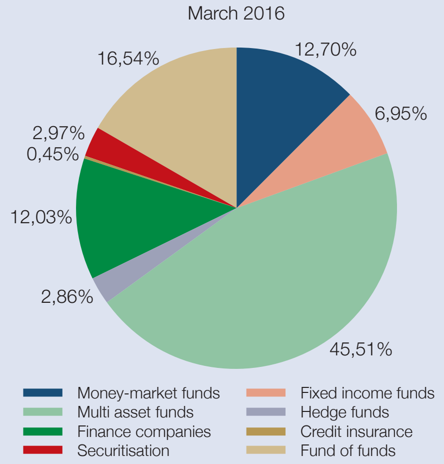
Figure 2A Financial assets held and distribution of financial assets between financial intermediaries in South Africa and banks' CDS



Note: Financial assets were used if the data were available.
* Banks' assets represented in Figure 2A were compiled by aggregating individual South African-registered banks data (including local branches of international banks' but excluding offshore branches and subsidiaries of South African banks, mutual banks and cooperative banks).

Sources: Association for Savings and Investment South Africa, Financial Services Board and South African Reserve Bank

Figure 2B Shadow banking activities



1 The measure is not complete and several activities can still be included.

Box 3: Update on developments relating to the African Bank resolution[1]

The resolution plan as reported in the previous *Financial Stability Review* was successfully implemented and the new African Bank Limited (African Bank) commenced operations on 4 April 2016. The new bank started with a strong capital and liquidity position which will assist the bank to execute the business model. Furthermore, the maturity of debt instruments has been extended by two years from the effective transaction date, which will mitigate the refinancing risk and help the bank to build a track record of profitability to improve investor confidence. There is a strategic focus from the Board of Directors (Board) and executive management to diversify the business model through new product offerings, target market and sources of funding in an attempt to improve the business performance of the bank. These include the transactional banking platform which is planned to be launched in 2017.

Two additional non-executive board members (Messrs Peter Temple and Sydney Mhlarhi) were appointed subsequent to the launch of the new bank, increasing the number of non-executive members to seven. The Myburgh Report on the investigation into the circumstances that gave rise to the old African Bank Limited (renamed Residual Debt Services Limited (RDSL)) being placed under curatorship was made public on 12 May 2016. The report stated that “there was no evidence that the business of the bank was conducted with the intent to defraud depositors or other creditors of the bank or any other person or for any other fraudulent purpose.” It also specified the areas where, according to the Commissioner, the business was conducted negligently or recklessly. As part of the restructuring plan, the South African Reserve Bank provided RDSL with a loan facility of R3,3 billion on 4 April 2016 to discharge its various payment obligations. RDSL repaid the loan facility in full on 1 September 2016.

Since April 2016, African Bank has bought back an equivalent of US$325 million worth of bonds from its foreign currency-denominated bondholders through open market and tender offers. The foreign liability represents a significant portion of the bank’s total liabilities and is also the most expensive in its debt composition. The reduction in the bank’s foreign liabilities will reduce the interest expense as well as improve earnings and the regulatory capital position.

1 Also see the first edition for 2016 of the *Financial Stability Review*, P26

Box 4: Selected macroprudential indicators for the insurance sector

A selection of indicators commonly used to identify and assess macroprudential risks was developed by using the definition of systemic risk as proposed by the Financial Stability Board and includes indicators such as (i) insurance penetration; (ii) insurance density; (iii) reinsurance retention rate; (iv) combined ratio; and (v) insurer concentration.[1]

(i) Insurance penetration

Insurance penetration highlights the relative importance of the insurance market to the country as a whole as well as the level of development of the insurance sector. A high ratio indicates a mature insurance sector, meaning that any stress event that may arise within the sector could impact on the real economy.

The penetration ratio for the long-term and short-term primary insurers[2] in South Africa over the past four years is reflected in Table 4A.

Table 4A Insurance penetration ratio

	2012	Year-on-year percentage change	2013	Year-on-year percentage change	2014	Year-on-year percentage change	2015
Gross written premium (R'millions)	440 223	13,1%	497 682	10,1%	547 794	5,0%	575 069
Gross domestic product (R'millions)	3 253 970	9,1%	3 549 153	7,4%	3 812 607	5,3%	4 013 592
Penetration ratio	13,53%		14,02%		14,37%		14,33%

Sources: Financial Services Board and South African Reserve Bank

South Africa's long-term insurers are increasing their efforts to target the lower-income segment of the population[3] to broaden the reach of life insurance and to support growth in premium income. Despite the lower penetration ratio recorded in 2015 compared with 2014, it still is among the highest in the world.[4]

(ii) Insurance density

This indicator shows the relative importance of the insurance market to an economy. High ratios suggest that any negative events within the insurance system could have an impact on the economy. Downward trends may indicate a fast-growing uninsured population. Upward trends may also highlight the need to reconsider regulatory capacity which should be commensurate with the growth in the sector.

The density ratio for the long-term and short-term primary insurers in South Africa over the past four years is reflected in Table 4B.

Table 4B Insurance density ratio

	2011	2012	2013	2014	2015
Gross written premium (R'millions)	379 042	440 223	497 682	547 794	575 069
Population (millions)	51,55	52,34	53,15	54,00	54,96
Density ratio (premium per capita)	R7 352,90	R8 410,83	R9 363,73	R10 144,33	R10 463,41

Source: Financial Services Board and South African Reserve Bank

According to Swiss Re, South Africa's density ratio is higher than the average (in US dollar terms) for emerging markets.[5] The South African insurance industry nevertheless still has scope for further growth. Over the long term, improved economic development should expose more South Africans to this industry, which in turn will increase the density ratio.

(iii) Combined ratio

The combined ratio measures the underwriting profitability of the insurance sector. If the industry's combined ratio is above 100 per cent the sector, is on aggregate, producing a loss resulting from the insurance business. This indicator is constructed for the short-term insurance industry only.

When compared to other regions,[6] South Africa's combined ratio has consistently been below that of all regions and has remained well below the 100 per cent ceiling.

Box 4: Selected macroprudential indicators for the insurance sector (continued)

Table 4C Combined ratio: short-term primary insurers

	2012	2013	2014	2015
Claims ratio (per cent) *	59	58	60	56
Management expense ratio (per cent) **	23	23	24	23
Commission ratio (per cent) **	8	7	7	7
Combined ratio (per cent) #	90	83	83	77

* Expressed as a percentage of net earned premiums
** Expressed as a percentage of net written premiums during the period
# Claims plus commission plus expenses less total investment income as a percentage of net earned premiums

Source: Financial Services Board

(iv) Insurer concentration

This 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, for example, above 50 per cent, then from a macroprudential perspective these insurers should be carefully monitored and supervised as they could be regarded as systemically significant. The concentration of the top five long-term and short-term insurers in South Africa is shown in Table 4D.

Table 4D Insurer concentration

	2011	2012	2013	2014	2015
Top five long-term insurers' assets (R'million)	1 197 969	1 339 458	1 641 588	1 936 296	1 977 916
Industry's total assets (R millions)	1 651 885	1 870 434	2 135 807	2 431 057	2 660 938
Concentration in top five long-term insurers	72,52%	71,61%	76,86%	79,65%	74,33%
Top five short-term insurers' gross premiums written (R'million)	37 253	40 470	44 326	51 099	50 742
Industry's total gross premiums written (R millions)	78 392	87 000	94 372	100 352	113 909
Concentration in top five short-term insurers	47,52%	46,52%	46,97%	50,92%	44,55%

Source: Financial Services Board

There is a high level of concentration in the long-term insurance industry and the fact that the top five short-term insurers are also in the conglomerate groups[7] of the top five long-term insurers makes the level of concentration even more significant. Therefore, this type of risk should be closely monitored.

1 Data for the calculation of all these indicators were obtained from the Financial Services Board. All figures, except for 2015, were audited as provided in the annual reports for Registrars of Long-term and Short-term Insurance. The 2015 figures were unaudited as provided in the quarterly reports on the results of the long-term and short-term insurance industries for the 12 months ended 31 December 2015.
2 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.
3 KPMG, *South African Insurance Industry Survey*, 2016.
4 International Monetary Fund, 'The insurance sector: trends and systemic risk implications', *Global Financial Stability Report*, April 2016.
5 Swiss Re, *Sigma No 3/2016,* 29 June 2016.
6 Organisation for Economic Co-operation and Development insurance statistics.
7 A conglomerate is the combination of two or more corporations engaged in entirely different businesses that fall under one corporate group, usually involving a parent company and subsidiaries. Often, conglomerates are multi-industry companies that are large and multinational.

The robustness of the domestic financial infrastructure

This section reviews developments in the domestic and international financial infrastructure and regulatory environment.

Corporate governance review

In order to strengthen the financial sector through regulatory and supervisory reforms, the Financial Stability Board identified a number of reform areas to be included in its programme of peer reviews. Market conduct issues related to financial institutions were identified as one of the areas requiring more attention after the global financial crisis. This led to corporate governance being identified as one of the areas that needed review.

Good corporate governance provides a platform for business to operate with the integrity and transparency required by the market. The Group of Twenty (G-20) and the Organisation for Economic Co-operation and Development's (OECD) Principles of Corporate Governance (the principles) were last updated in 2004. Following the update of the principles, the OECD Steering Group on Corporate Governance decided on a methodology[42] to aid the implementation of the principles. This methodology will also be updated once the Financial Stability Board's review is finalised. The principles[43] are part of the Financial Stability Board's key standards for sound financial systems. A draft of the revised principles was presented to the G-20/OECD Governance Forum in 2015. The principles have subsequently been presented at a number of other forums and were endorsed at the November 2015 G-20 Leaders Summit.

The revised principles maintain some of the initial recommendations but also address new issues such as recommending training for the Board of Directors (Board) and the evaluation of directors, the inclusion of non-financial information in company reports, and the use of information technology at shareholder meetings. The principles cover the following broad areas:

- ensuring the basis for an effective corporate governance framework with emphasis on the quality of supervision and enforcement;
- rights and the equitable treatment of shareholders and key ownership functions that deal with the disclosure of control structures and shareholder rights;
- institutional investors, stock markets and other intermediaries' disclosure of conflicts of interests, in particular those conflicts related to rating agencies and brokers;
- the role of stakeholders in corporate governance, in particular outlining the benefits of active cooperation between corporations and stakeholders;
- encourage active cooperation between corporations and stakeholders;
- identify crucial areas of disclosure, such as the financial and operating results and the disclosure of non-financial information by companies; and

42 The methodology for assessing the implementation of the OECD Principles of Corporate Governance is available at http://www.oecd.org/daf/ca/corporategovernanceprinciples/37776417.pdf

43 The OECD Corporate Governance Principles are available at http://www.oecd.org/daf/ca/Corporate-Governance-Principles-ENG.pdf

- provide guidance with respect to key functions of the Board, touching on new issues such as the role of the Board in risk management, tax planning and internal audit.

The Financial Stability Board's focus is on conducting peer reviews on the implementation of the principles. The objective of the reviews is to take stock of Financial Stability Board member jurisdictions' application of the principles for publicly listed, regulated financial institutions in order to identify effective practices and areas of weakness. The Financial Stability Board expects to collect and analyse information during 2016 and to present the peer review report during 2017.

As a member of the Financial Stability Board, South Africa is committed to aligning its regulatory framework with that of international standard-setting bodies. The King Committee, which has spearheaded good corporate governance initiatives in South Africa over the past two decades, has also embarked on an update of the *King Report on Governance for South Africa 2009* (King III) (see Box 5 for some comments on the *Draft King Report on Governance for South Africa 2016* (King IV)). South Africa will participate in the Financial Stability Board's peer review and, given South Africa's long-term involvement with the King Committee, there should be no significant challenges for corporates to comply with such new principles.

Regulatory developments impacting the domestic banking sector

Correspondent banking

Correspondent banking enables banks to provide cross-border payment and receipt services to their customers, thereby supporting trade and financial flows. Historically, banks have built up and maintained networks of correspondent banking relationships (CBRs) with their counterparts abroad to facilitate payments. Over the past few years, correspondent banking appears to have declined in certain parts of the world. This has raised concerns among some international bodies, such as the Financial Stability Board, IMF and BIS about the health of global correspondent banking and has led to attempts to understand and address this development. A disruption to correspondent banking activity has the potential to negatively affect growth and financial inclusion initiatives,[44] and compromise the smooth functioning of the financial system, impacting on financial stability in some countries and regions. This section explores the nature, possible causes and potential implications of such changes to correspondent banking.

Preliminary measures of decline

While investigations into correspondent banking trends are ongoing, certain features of the challenges facing some regions with respect to this matter have been outlined in reports completed to date. A number of countries have reported experiencing a reduction of CBRs by global banks in their jurisdictions[45] and this decline has to some extent been supported by a recent Committee on Payments and Market Infrastructure (CPMI) report.[46]

44 Financial Stability Board, 'Progress report to G20 on the FSB action plan to assess and address the decline in correspondent banking', August 2016, p 1.

45 Michaela Erbenova et al., 'The withdrawal of correspondent banking relationships: a case for policy action', *IMF Staff Discussion Note, SDN/16/06*, 30 June 2016, p 5 (hereafter, M Erbenova, IMF SDN/16/06).

46 Committee on Payments and Market Infrastructures *Correspondent Banking*, Bank for International Settlements, July 2016. (hereafter, CPMI Correspondent Banking Report 2016.)

The one key finding of the CPMI report was that from 2011 to 2015, the overall number of CBR decreased while the volume of cross-border payments increased.[47] This apparent anomaly (i.e. decreased relationships versus increased volumes) is explained by the fact that banks are 'switching' payments to other channels after the withdrawal of correspondent banks from some markets and the 're-routing' of transactions via third countries or parties. According to this report, the data suggest that concentration in correspondent banking increased.[48]

While the downward trend is evident for some regions in Africa, the overall results for the continent are mixed. The decline in CBRs is more prominent in northern and southern Africa but, in the latter region, South Africa is not affected negatively and in some countries on the continent there have been substantial increases.[49] The big South African banks are active on the continent and a withdrawal of CBRs on the continent therefore has implications for the domestic banking industry.

Factors affecting correspondent banking on the continent

The decline of correspondent banking or global banks' withdrawal from CBRs is generally referred to as 'de-risking'. However, de-risking is used as a broad term under which a number of often disparate factors are lumped together. Factors such as 'changes to the regulatory and enforcement landscape', sanctions related to anti-money laundering and combating the financing of terrorism (AML/CFT), re-evaluation of 'business models in the new macroeconomic landscape'[50] and a change in risk appetite away from what is deemed high-risk products (including letters of credit and cash letters) all contribute to the decline of CBRs. Faced with increasing compliance costs, banks' decisions on correspondent banking are ultimately shaped by the outcome of a cost–benefit analysis of the products and services that they provide.

Some effects of the decline in correspondent banking

The implications of the withdrawal of CBRs for growth in affected countries have been identified and the concerns about financial exclusion, especially the exclusion of whole countries, have been raised by others.[51] Together with these potential macroeconomic consequences, the reduction of CBRs has reportedly also brought about a number of ramifications within the banking industry with respect to the nature of cross-border banking on the continent. One adverse effect reported for customers is the higher costs and fees[52] associated with correspondent banking. Re-routing and using alternative channels or corridors make the processing of global transfers lengthier and adds to higher fees as a result of third-party costs.

Survey results indicate that cutbacks on CBRs have affected mostly small- and medium-sized exporters and small- and medium-sized banks.[53] This has led to customers in some instances migrating their accounts to larger banks that provide global payment services.

---

47 CPMI Correspondent Banking Report 2016, p 15.

48 CPMI Correspondent Banking Report 2016, p 15.

49 CPMI Correspondent Banking Report 2016, p 16.

50 M Erbenova, IMF SDN/16/06, p 5.

51 See the article by Mark Carney and Bertrande Badre, 'Keep finance safe, but do not shut out the vulnerable', *Financial Times*, 2 June 2015, and available at: http://www.ft.com/cms/s/0/19ab0272-085a-11e5-85de-00144feabdc0.html?siteedition=intl#axzz4Ioy0oVIj. (accessed on 30 August 2015)

52 See CPMI Correspondent Banking Report 2016, p 37, and M Erbenova, IMF SDN/16/06, pp 15–16.

53 M Erbenova, IMF SDN/16/06, p 15.

Global regulatory measures to address the decline in correspondent banking

International financial authorities and agencies have over the past two years worked on addressing the challenges posed to the global community by recent developments in correspondent banking. In November 2015 the Financial Stability Board presented an action plan to the G-20 leaders based on the following four elements:[54]

- data collection to further examine the dimensions and implications of the issue;
- clarifying regulatory expectations, as a matter of priority, including more guidance by the Financial Action Task Force (FATF);
- capacity-building in jurisdictions that are home to affected correspondent banks; and
- strengthening tools for due diligence by correspondent banks.

In March 2016 the Financial Stability Board established the Correspondent Banking Coordination Group (CBCG) to drive the implementation of the action plan. As part of the process, in July 2016 the CPMI published its report on correspondent banking, providing recommendations to (i) know-your-customer (KYC) utilities; (ii) use of the legal entity identifier (LEI) in correspondent banking; (iii) information-sharing initiatives; (iv) payment messages; and (v) the use of the LEI as additional information in payment messages.[55] Resources of the IMF and World Bank are also deployed on this matter.

In terms of regulatory expectations, a key concern in correspondent banking is the contravention of AML/CFT standards and the absence of FATF standards of a requirement for correspondent institutions to conduct due diligence on the customers of the correspondent bank.[56] In this regard, the CBCG action plan includes calling on FATF, in cooperation with the Basel Committee on Banking Supervision AML/CFT Expert Group, to provide more guidance in the area of correspondent banking. FATF is developing guidance on correspondent banking and it is expected to finalise the guidance by October 2016.

Conclusion

The recent difficulties experienced with correspondent banking have to date not presented an imminent systemic threat to financial stability for South Africa. However, the pressures created by these difficulties on the continent are real and could build up and adversely affect financial inclusion and financial integration on the continent. Such a scenario will have long-term implications for domestic and regional financial stability and growth. However, regulatory authorities and global standard-setting bodies are addressing the challenges and, with the measures being developed, greater clarity on how to address this matter could be available by the end of 2016.

54 The information is based on the Financial Stability Board's 2016 'Progress report to the G20 on the Financial Stability Board's action plan to assess and address the decline in correspondent banking', p 1 (hereafter, Financial Stability Board 2016 Progress Report) .

55 Financial Stability Board 2016 Progress Report, p 1, and the CPMI Correspondent Banking Report 2016.

56 Financial Stability Board 2016 Progress Report, p 5.

Regulatory developments affecting the financial market infrastructures sector

Financial Markets Act regulations

The March 2014 edition of the *Financial Stability Review* reported on the implementation of over-the-counter (OTC) derivatives market reforms. Subsequently, the first draft of the Financial Markets Act Regulations (the regulations) were released and reported on in the September 2014 edition of the *Financial Stability Review*.

On 21 July 2016, National Treasury together with the Bank and the FSB published the third draft of the regulations which forms part of the OTC derivatives regulatory framework that started with the enactment of the Financial Markets Act 19 of 2012. The third draft of the regulations aims to:

- extend the regulations to OTC derivatives markets and participants;
- enable the registrar to enforce requirements and supervise OTC derivatives market participants;
- provide for external market participants to partake in the domestic financial markets;
- provide for the licensing and supervision of additional market infrastructures; and
- provide transitional arrangements in order to give market participants sufficient time to comply with the regulations.

The regulations will ensure that South Africa's financial market legislation for OTC derivatives is aligned with international reform efforts as a number of jurisdictions have already begun with the implementation of requirements for central clearing, central reporting, and capital and margin requirements for non-centrally cleared OTC derivative transactions. Some domestic financial institutions already have to comply with similar requirements due to their participation in compliant markets abroad. The regulations should address uncertainties in the domestic regulatory framework for OTC derivatives and move South Africa a step closer to meeting its G-20 commitments. The third draft of the regulations must be read in conjunction with a range of other documents.[57]

The deadline for comments on the third draft of the regulations was 31 August 2016. The timeline for the legislative processes related to both the Financial Sector Regulation Bill (FSRB) and the OTC derivatives reforms is detailed in the explanatory memorandum that was issued with the regulations. It is proposed that the regulations be tabled in Parliament towards the end of 2016, while the central clearing mandate will be reviewed during 2017, with the code of conduct and central clearing mandate being implemented during 2018. The strengthening of the regulatory framework for OTC derivatives will contribute to the overall stability of financial markets by mitigating systemic risk and providing greater transparency in the domestic OTC derivatives markets.

The move to trade-plus-three settlement cycle in the domestic equity markets

Previous editions of the *Financial Stability Review* have reported on the process to improve on the settlement cycle of the domestic equity market by

57 These documents are the Financial Markets Act 19 of 2012; the Financial Sector Regulation Bill; the draft Board Notices issued by the Financial Services Board; National Treasury's response document for amendments to the Financial Markets Act; the CPMI-IOSCO Principles for Financial Market Infrastructures; and the International Monetary Fund's technical note on over-the-counter reforms in South Africa.

the JSE Limited (JSE). On 11 July 2016, following a three-phased process of implementation, the JSE successfully launched a three-day settlement cycle, known as 'T+3'. T+3 refers to the number of days from the day on which a trade occurs to the time it is settled. Settlement in this context means the seller receiving payment and the buyer taking ownership of the share. Previously there was a six-day schedule (T+5), which has now shortened to a four-day schedule (T+3). This move has aligned South African equity markets with international best practice settlement standards.

The shortened settlement cycle has a number of benefits for the development of domestic capital markets, where approximately 30 per cent of average daily trade on the JSE is conducted on behalf of non-residents. By aligning with global best practices, there is harmonisation between the JSE and other international equity markets, bringing improved credibility to the local equity market. By shortening the settlement time, overall risks in the system are reduced.

In the latest *Global Competiveness Report 2016-2017* by the World Economic Forum, South Africa's overall ranking out of 144 countries was 49, but in terms of financial market development it was ranked in the 12th position. However, it was ranked first in terms of financing through the domestic equity market and second in the financial regulation components of financial market development.[58] The reduction in the settlement cycle as evidenced in the T+3 moves will position South Africa to continue its competitiveness in global financial markets and lend increasing credibility and operational efficiency to investors and participants in this market.

Progress on the global legal entity identifier

The March 2013 and March 2014 editions of the *Financial Stability Review* reported on the establishment and progress in the development of a global legal entity identifier (GLEI). The LEI Regulatory Oversight Committee (LEI ROC) endorsed Strate (Pty) Limited (Strate) as a pre-local operating unit (pre-LOU) and in February 2016 Strate went live with the LEI application programme.

The Global Legal Entity Identifier Foundation (GLEIF) was established in June 2014 but only assumed the responsibility for accrediting organisations seeking to become LEI issuers on 7 October 2015. At that date, the GLEIF also took on the tasks of the central operating unit. Prior to that date, the LEI ROC was responsible for endorsing organisations as LEI issuers. Strate is currently in the process of being accredited as a LOU by the GLEIF and has signed a non-disclosure agreement with the GLEIF.

The adoption of the LEI forms part of the broader agenda to monitor activity in the financial markets and to identify areas of systemic risk in the financial system. Other than the LEI, there is also work in progress to use a unique transaction identifier (UTI) to identify OTC derivatives transactions that will be reported to trade repositories as well as a unique product identifier (UPI) to aggregate exposures to certain products for regulatory purposes. The implementation of the above-mentioned tools will enhance regulators' ability to monitor systemic risk and will assist in creating a more robust and stable financial system.

58 See the 2016-2017 and previous *Global Competitiveness Report* available on the World Economic Forum website at https://www.weforum.org/

Box 5: The South African King Report on Governance for South Africa 2016 (King IV)

The King III[1] report was last updated in 2009 and since then there have been a number of developments that have taken place both internationally and domestically. It is in this vein that the King IV Committee and the Institute of Directors of South Africa (IoDSA), in consultation with other stakeholders, embarked on a process to update the current corporate governance regime.

Part of the review of King III is informed by refinements in group governance matters, executive remuneration, integrated reporting, tender processes and audit firm rotation. There have also been a number of private companies and public-sector entities that have experienced interpretation issues when applying King III to their entities, and this review and update will alleviate some of those challenges.

The King IV Committee is the lead in this process and will be driving the project until the report is finalised. The King IV[2] project (updates to King III) is following a phased-in approach which began in 2014 with the setting up of governance structures to lead the project. A number of task teams and working groups were set up in order to compile the project plan and structure the themes.

The research component was conducted in Phase 1 (status quo and gap analysis). During this phase stakeholders from different sectors were consulted and comparisons with international codes conducted. Phase 2 of the project involved preliminary consultations as well as compiling a second working draft. The King IV project is currently in Phase 3 (public consultation and comments).

The major changes that are being proposed to King III are as follows:

- allow for accessibility to entities other than listed companies;
- simplify interpretation issues that are currently being experienced;
- simplify the requirement to apply or explain[3] which will see companies provide an overview of current practices and the progress made in the journey towards giving effect to each principle;
- clearly differentiate principles from practice recommendations;
- provide for easier access on mobile and tablet devices through improvements in the succinctness of King IV; and
- enhance transparency on the application of the principles by allowing listed companies to disclose their application of the principles.

Transitional arrangements indicate that King III will still be applicable until such time that King IV is in place. The public comment process ended in June 2016 and the final report will be published towards the end of 2016. There will be a grace period for entities to implement King IV and it is envisaged that King IV will come into effect during the latter part of 2017.

South Africa is highly rated[4] by the World Economic Forum's *Global Competitiveness Report* when it comes to compliance with corporate governance in institutions, and the move towards King IV will bolster confidence in the corporate sector, thereby enhancing the soundness of those institutions that operate in the financial sector.

1 The King III Code of Governance Principles is available at http://c.ymcdn.com/sites/www.iodsa.co.za/resource/collection/94445006-4F18-4335-B7FB-7F5A8B23FB3F/King_III_Code_for_Governance_Principles_.pdf

2 The draft King IV report is available at https://c.ymcdn.com/sites/iodsa.siteym.com/resource/resmgr/King_IV/King_IV_Report_draft.pdf

3 The 'apply or explain' approach was adopted in the King III report. This approach allowed the Board of Directors the discretion on how the principles could best be applied.

4 The World Economic Forum ranked South Africa 38th out of 144 countries in terms of the strength of its institutions. The *Global Competiveness Report* is available at http://reports.weforum.org/global-competitiveness-report-2015-2016

.

Financial stability risks and outlook

Update on financial stability risks

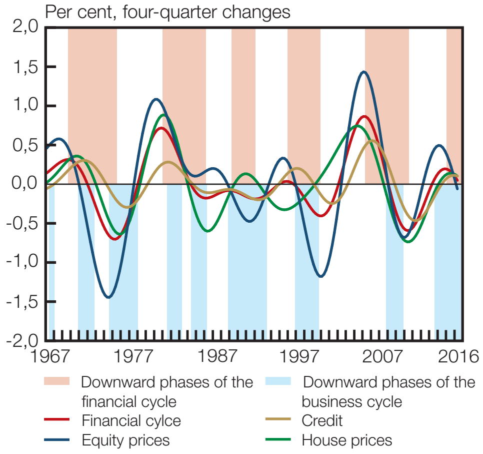
The Bank regularly publishes its assessment of the risks to financial stability in the next 12 months, with a view to identifying and managing risks and vulnerabilities in the domestic financial system. A number of key scenarios regarding potential threats to financial stability are identified. These potential threats are rated according to the likelihood of their occurrence as well as their expected impact on the domestic financial system. Risks identified are classified as 'high', 'medium' or 'low' in terms of the likelihood of a risk occurring, and 'severe' or 'moderate' in terms of impact. The first edition for 2016 of the *Financial Stability Review* covers these risks in more detail.

Table 6 Risk assessment matrix

Risk and probability	Expected impact on financial stability in South Africa
Sovereign rating downgrade to sub-investment grade	
Medium	Moderate to severe
Sovereign rating downgrade to sub-investment grade which is largely dependent on economic growth prospects and a stabilisation in public debt (state-owned enterprises)	Capital outflows, potential spillovers to rand-denominated South African government debt; sovereign rating downgrades leading to higher cost of and reduced access to funding; reduced credit to the private sector. Severity is dependent on the extent to which a downgrade is already priced in
Protracted period of slow global economic growth	
Medium	Severe
Downside risks from low growth/low inflation environment in advanced economies. In the euro area (limits to monetary policy and banking system fragility) and in China, the potential for a disruptive adjustment	Global loss of confidence feeds into recurrent bouts of volatility. For South Africa, adjustment of portfolio flows, exchange rates, bonds and equities, inflation, asset quality
Spillovers from excessive volatility and risk aversion in global financial markets	
Medium	Moderate
Spillovers from recurrent bouts of excessive volatility and risk aversion in global financial markets (e.g. further developments regarding Brexit, US elections, geopolitical tensions)	Reversal of portfolio flows, exchange rate depreciation, sell-off in equities, inflation and deteriorating asset quality
A strong US recovery	
Medium	Moderate
Strong US recovery and earlier-than-expected Fed hike that results in exchange rate and financial market instability	Capital outflows, sovereign ceiling downgrades leading to higher cost of and reduced access to funding; reduced credit to the private sector. Severity is dependent on the extent to which the hike is already priced in, and the policy space to buffer the shock
Low domestic economic growth	
High	Moderate
Extended period of low domestic economic growth, elevated household and corporate sector vulnerability, and increased risk for the banking sector	Higher unemployment, low growth in disposable income and weak corporate profitability spill over to the financial sector through increasing impairments

Figure 36 Financial Stress Index for South Africa

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



Assessing financial stress

The mechanics behind the compilation of the Financial Stress Index[59] and its application for South Africa was explained in the March 2015 edition of the *Financial Stability Review*. Since January 2014, the index has been on an upward trend (Figure 36). Increased pressure in the financial system is mostly driven by the increase in the sovereign bond spread, a slowdown in growth in equity prices, and an increase in the rand exchange rate volatility.

Financial cycle update

Financial cycles are generally measured by the co-movement of a broad set of financial variables (BIS, 2015).[60] Figure 37 depicts the financial cycle in South Africa, estimated using total credit, residential property prices and equity prices as indicators. Following Drehmann, Borio and Tsatsaronis (2012),[61] the band-pass filter suggested by Christiano and Fitzgerald (2003)[62] was used to isolate the component of each series that corresponds to the chosen frequency interval, that is, with a duration between 8 and 30 years (or 32 and 120 quarters). The downward phases of the financial cycle are shown by the light orange shaded areas, while the downward phases of the business cycle are shown in light blue.[63] As can be seen in Figure 37, the financial cycle in South Africa has a lower frequency than the traditional business cycle.

Both the financial cycle and the business cycle in South Africa are currently in a downward phase. This may be a concern because downward phases of the business cycle have been found to be deeper when they coincide with the contraction phase of the financial cycle (Drehman et al. 2012; Claessens et al. 2011).

Also, the peaks of the financial cycle have tended to be associated with financial stress. Asset prices and debt imbalances build up during the upswing and result in distress when a shock hits. However, Figure 37 reveals that the upswing of the most recent financial cycle has been less pronounced than its immediate predecessor, suggesting that the build-up of excessive imbalances may have been less likely.

Financial cycles provide a broad indication of the change in risks to financial stability and, as such, provide a useful monitoring tool for policymakers. Also, it is important to distinguish between the phases of a country's financial cycle in selecting macroprudential instruments. Policies may function differently depending on the phase of the cycle; some researchers find that macroprudential tools may be less effective when corresponding to downswings following adverse events than mitigating risks during upswings (e.g. Claessens et al. 2014).[64] An understanding of financial cycles is therefore vital for informing the use of countercyclical macroprudential policies.

59 The Financial Stress Index is a single aggregate indicator that is constructed from 17 variables, covering the five main sectors to measure vulnerability in the South African financial system. The variables that were employed were from the real-estate, credit, foreign exchange, equity, and funding markets.

60 Bank for International Settlements, *85th Annual Report*, 28 June 2015, available at www.bis.org/publ/arpdf/ar2015e.htm.

61 M Drehmann, C Borio and T Tsatsaronis, 'Characterising the financial cycle: don't lose sight of the medium term!' *BIS Working Papers No. 380*, 2012.

62 L Christiano and T Fitzerald, 'The band-pass filter', *International Economic Review* 44(2): 435–65, 2003.

63 See the September 2015 edition of the *Financial Stability Review* for more details on the calculation of the financial cycle.

64 M Drehmann, C Borio and T Tsatsaronis. 'Characterising the financial cycle: don't lose sight of the medium term!' *BIS Working Papers No 380*, 2012. and S Claessens, M A Kose and M E Terrones, 'How do business and financial cycles interact?', *IMF Working Paper WP/11/88*, 2011.

Macroprudential policy regulation

Assessing the application of the countercyclical capital buffer for banks

The countercyclical capital buffer (CCB)[65] was designed to take into account the macrofinancial environment in which banks operate. Specifically, the CCB framework provides supervisors with a tool to change capital requirements in order to protect banks from the boom and bust phases of the financial cycle.

The Financial Stability Committee (FSC) of the Bank is responsible for setting the CCB rate, which forms an integral part of the internationally agreed 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 credit-to-GDP gap is designed to take into account the macrofinancial environment in which banks operate and is the main indicator informing the activation of the CCB. Specifically, the CCB framework[66] provides supervisors with a tool to change capital requirements in order to protect banks from the boom and bust phases of the financial cycle.

In line with the increase in GDP, the credit[67]-to-GDP gap decreased sharply in the second quarter of 2016 and continued to remain below its long-term average (see Figure 38). The credit-to-GDP ratio has remained below its long-term trend since 2010.

The widening of the gap in the second quarter was driven by the rate of credit granted to both corporates and households (Figure 39). Credit extension by banks to households has remained relatively subdued and, in addition to the sharp increase in GDP, it resulted in a relatively steeper decline in the household credit-to-GDP gap in the second quarter of 2016.

Credit extended in different credit categories continued to exhibit different and, in some cases, divergent growth trends (Figure 40). The credit-to-GDP gap for mortgage advances not only remained well below its long-term trend, but declined even further, possibly also displaying generally weak confidence and economic outlook levels.

Consideration for the activation of the countercyclical capital buffer for banks

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 remains well below any likely calibration of the lower threshold of the countercyclical buffer add-on for South African banks.[68] Therefore, there is currently no need from a macroprudential regulatory perspective to consider a CCB add-on for South African banks. The Bank has not yet contemplated applying the CCB add-on on individual loan categories, but a macroprudential policy paper on the options and use of instruments for financial stability purposes will be made available on the Bank's website.[69]

Figure 38 Private sector credit-to-GDP gap

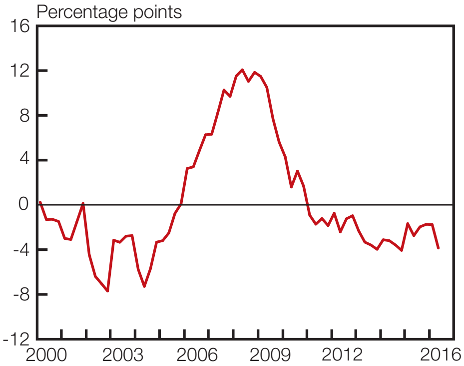


Figure 39 Private sector credit-to-GDP gap: households and corporates

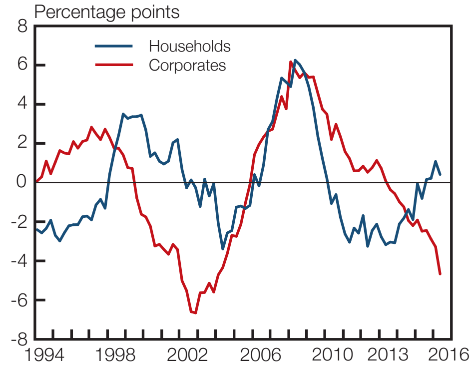
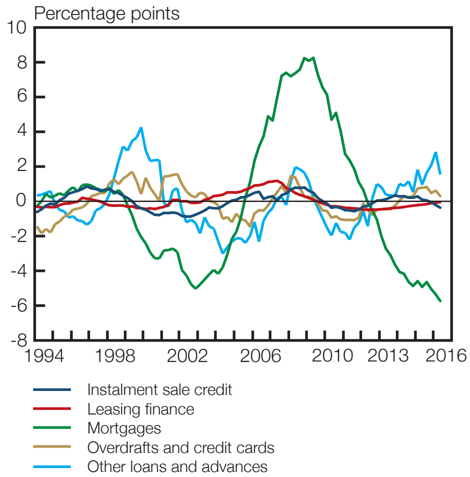


Figure 40 Selected private sector credit-to-GDP gaps according to asset class



65 The credit-to-GDP gap is calculated as the difference between the credit-to-GDP ratio and its long-term trend. In accordance with recommendations by the Basel Committee on Banking Supervision, the trend is estimated using a one-sided Hodrick–Prescott filter using a recommended smoothing parameter (λ) of 400 000. See Basel Committee on Banking Supervision, 'Guidance for national authorities operating the countercyclical capital buffer', December 2010.

66 Ibid.

67 Total credit extended to the private sector, excluding investments and bills discounted.

68 Note that instruments for macroprudential policy should not be applied mechanistically, but should be subject to judgement.

69 Available at http://www.reservebank.co.za

Abbreviations

AGR	augmented Guidotti ratio
AML	anti-money laundering
BDI	business debt index
BER	Bureau for Economic Research
BETI	BankservAfrica Economic Transaction Index
BIS	Bank for International Settlements
Board	Board of Directors
BRICS	Brazil, Russia, India, China and South Africa
CBCG	Correspondent Banking Coordination Group
CBR	correspondent banking relationship
CCB	countercyclical capital buffer
CCI	consumer confidence index
CDS	credit default swap
CFT	combating the financing of terrorism
CFVI	Consumer Financial Vulnerability Index
DB	defined benefit
DC	defined contribution
ECB	European Central Bank
EDF	expected default frequency
EIOPA	European Insurance and Occupational Pensions Authority
EME	emerging market economy
EU	European Union
FATF	Financial Action Task Force
Fitch	Fitch Ratings
FNB	First National Bank
FSB	Financial Services Board
FSC	Financial Stability Committee
FSR	*Financial Stability Review*
FSRB	Financial Sector Regulation Bill
G-20	Group of Twenty
GDP	gross domestic product
GLEIF	Global Legal Entity Identifier Foundation
GR	Guidotti ratio
H-index	Herfindahl–Hirschman Index
ICR	interest coverage ratio
IIF	Institute of International Finance
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
JSE	JSE Limited
King III	*King Report on Governance for South Africa 2009*
King IV	*Draft King Report on Governance for South Africa 2016*
LEI	legal entity identifier
LOU	local operating unit
MMF	money-market fund
Moody's	Moody's Investors Service
MOVE	Merrill Lynch Option Volatility Estimate Index
NIRP	negative interest rate policy
OECD	Organisation for Economic Co-operation and Development
OFI	other financial intermediary
OTC	over the counter
P/R	price to rent
PMI	Purchasing Managers' Index
RDSL	Residual Debt Services Limited
REIT	real-estate investment trust
ROC	Regulatory Oversight Committee
ROE	return on equity
S&P	Standard & Poor's

SME	small- and medium-sized enterprise
SSA	sub-Saharan Africa
Strate	Strate (Pty) Limited
the Bank	South African Reserve Bank
the principles	Principles of Corporate Governance [OECD]
UK	United Kingdom
US	United States
VIX	Volatility Index
VXEEM	CBOE Emerging Market ETF Volatility Index
WGBI	World Government Bond Index