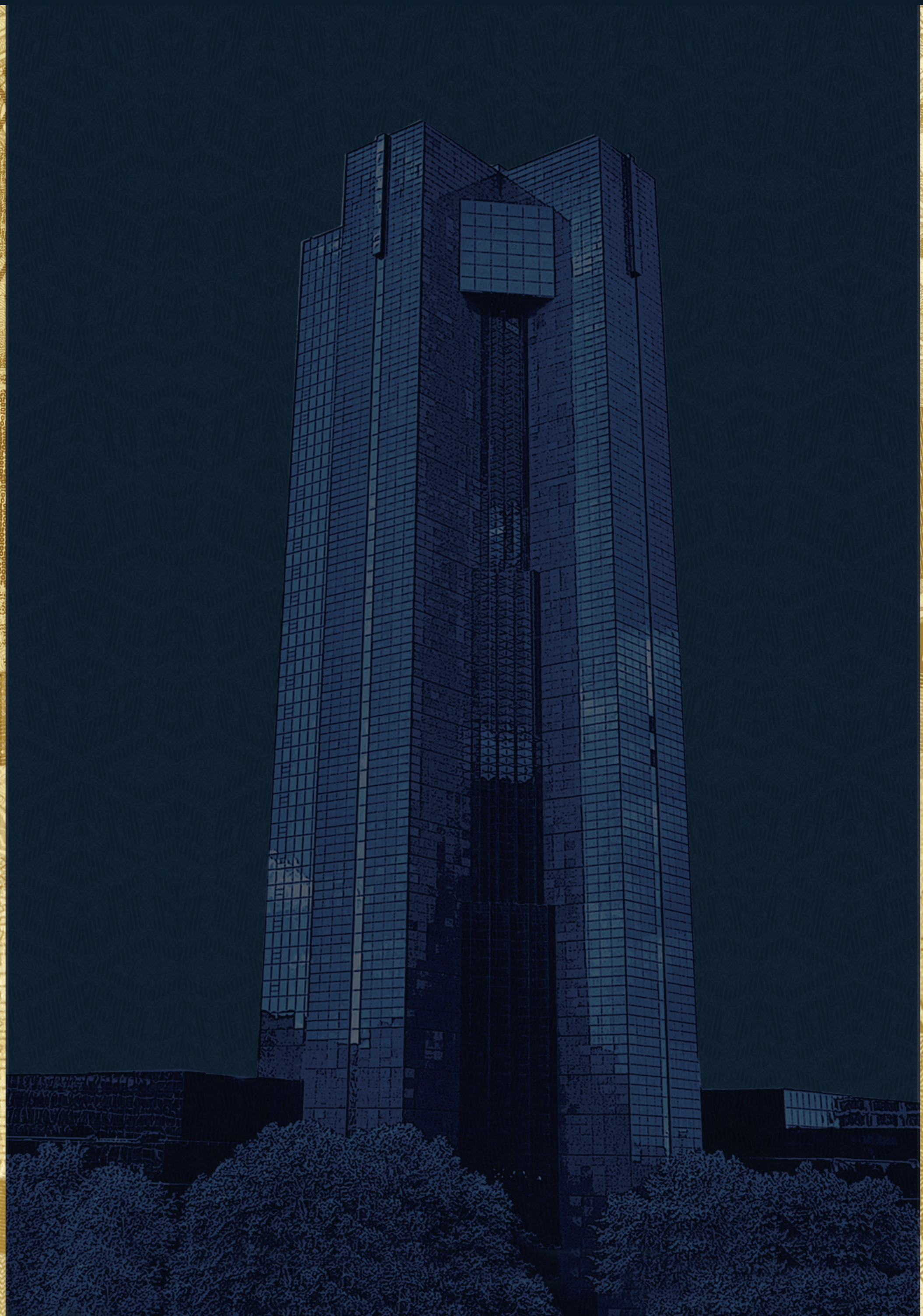
Monetary Policy Review

October 2016



South African Reserve Bank

Monetary Policy Review

October 2016

South African Reserve Bank

Enquiries relating to this *Monetary Policy Review* should be addressed to:
Head: Economic Research and Statistics Department
South African Reserve Bank
P O Box 427
Pretoria 0001
Tel. +27 12 313 3668

www.reservebank.co.za ISSN: 1609-3194

Preface

The primary mandate of the South African Reserve Bank (the Bank) is to achieve and maintain price stability in the interest of balanced and sustainable economic growth. Low inflation helps to maintain and improve competitiveness, protects the purchasing power and living standards of all South Africans, and provides a favourable environment for balanced growth, investment and employment creation. In addition, the Bank has a complementary mandate to oversee and maintain financial stability. The Bank's Monetary Policy Committee (MPC) is responsible for monetary policy decisions, and comprises the Governor as Chairperson, the deputy governors and senior officials of the Bank.

Price stability is quantified by the setting of an inflation target range by government after consultation with the Bank. The Bank has instrument independence, with the commitment to pursue a continuous target of 3–6 per cent for headline consumer price index inflation. The MPC conducts monetary policy within a flexible inflation-targeting framework that allows inflation to be temporarily outside the target range under certain circumstances.

The MPC takes into account a viable medium-term time horizon for inflation and considers the time lags between policy adjustments and economic effects. This provides for interest rate smoothing over the cycle, and contributes towards more stable economic growth. The repurchase (repo) rate decision reflects the MPC's assessment of the appropriate monetary policy stance.

The decision of the MPC, together with a comprehensive statement, is announced at a media conference at the end of each meeting. This announcement outlines the MPC's assessment of prevailing domestic and global economic conditions, as well as recent outcomes and forecasts for inflation and real economic activity.

The *Monetary Policy Review* (*MPR*) is published twice a year and is aimed at broadening the understanding of the objectives and conduct of monetary policy. The *MPR* covers domestic and international developments that have affected inflation and that impact on the monetary policy stance. It also provides an assessment of the factors determining inflation and the Bank's forecasts of the future path of inflation and economic growth. The *MPR* is presented by the Governor and senior officials of the Bank at monetary policy forums in various centres across South Africa in an effort to develop a better understanding of monetary policy through direct interaction with stakeholders.

Contents

Executive summary

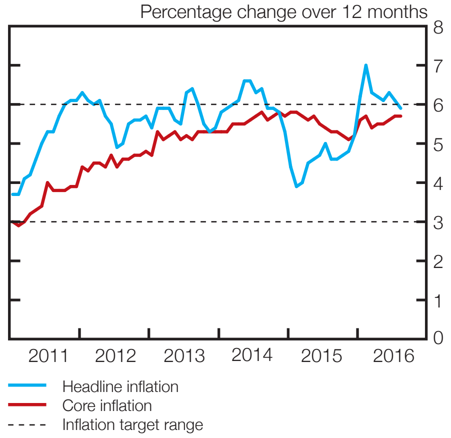
In recent years, South Africa has been buffeted by a series of adverse economic developments, including falling commodity prices, weakening capital flows, shifting perceptions of country risk and drought. Since the previous Monetary Policy Review (MPR), *published in April 2016, the global environment has become somewhat more favourable. Both commodity prices and capital flows to emerging markets have strengthened, benefitting the exchange rate. Inflation is expected to average 6,4 per cent this year, a new post-crisis high, but the outlook has improved from earlier in the year. The breach of the inflation target range is now anticipated to end in the first rather than the second half of 2017, and the risks to the forecast have become more evenly balanced. This has permitted a pause in the interest rate cycle, allowing the repo rate to remain at the 7,0 per cent level reached in March 2016. Should conditions remain consistent with those envisaged in the latest forecast, the end of the cycle may be in sight.*

World economic conditions look better now than they did early in 2016. China's economy has stabilised following a period of disruptive exchange rate and stock market activity at the start of the year. Stimulus measures have put a floor under growth, at least temporarily, benefitting commodity prices. More recently, major central banks in advanced economies have either eased policy or signalled a slower pace of normalisation than was otherwise expected, in response to the Brexit referendum of June 2016 as well as other factors. One consequence has been a rebound in investment flows to emerging markets, reversing a long phase of declining inflows which began with the 'taper tantrum' of May 2013. Emerging market currencies have appreciated in response, with those which lost the most ground early in the year showing the largest appreciations.

South Africa-specific elements also contributed to the rand rally. The major international ratings agencies re-affirmed the sovereign's investment-grade credit rating in the middle of the year. Furthermore, the local government elections held in August provided a useful reminder of the vitality of South Africa's democratic institutions. Nonetheless, domestic factors have not all been supportive. In late-August, for instance, the rand weakened again in response to news of a police investigation affecting the serving finance minister. Furthermore, South Africa's macroeconomic fundamentals may leave the rand exposed in the event of future risk-off episodes, given slower and less complete adjustments than those in peer economies.[1] In particular, the current account deficit is expected to remain between 4 and 5 per cent of gross domestic product (GDP) through 2016 and 2017 (despite a sharp narrowing of the deficit in the second quarter of 2016). The main budget fiscal deficit will be close to 4 per cent of GDP this year, as per the 2016 National Budget.

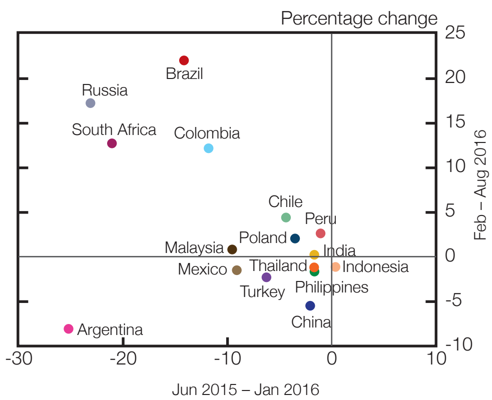
Domestic growth is forecast narrowly above zero this year (0,4 per cent). It is expected to improve slightly over the forecast period, reaching 1,2 per cent in 2017 and 1,6 per cent in 2018. Yet this remains below population growth (of 1,6 per cent in 2015/16), and well below the 3 per cent average growth rate achieved in the two decades after 1994. In part, weak growth reflects the impact of passing shocks (such as drought). More fundamentally, two of the most important growth drivers in the recent past – debt and commodity

Headline and core inflation



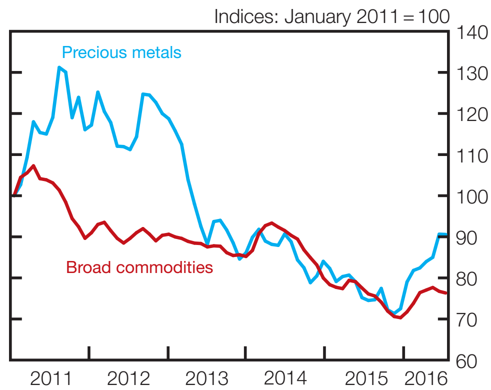
Sources: South African Reserve Bank and Statistics South Africa

Emerging market exchange rate dynamics: nominal effective exchange rate changes



Sources: Bank for International Settlements and own calculations

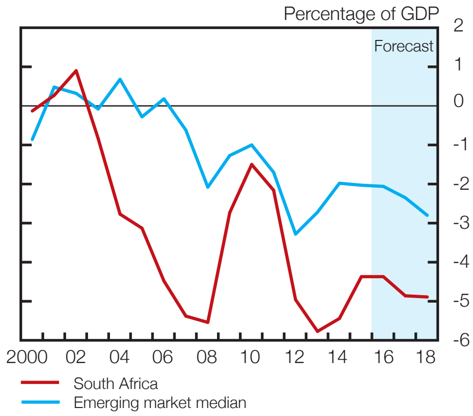
Commodity prices



Sources: Thomson Reuters/Jefferies and World Bank

1 The connection between macroeconomic fundamentals and exchange rate depreciation in response to recent changes in US monetary policy has been established in a number of studies. See, for instance, *South African Reserve Bank Working Paper* 15/04 by Shakill Hassan, Merissa Paul and Siobhan Redford titled 'Vulnerability to normalisation of global financing conditions: an operational approach', available at http://www.resbank.co.za/Lists/News%20and%20 Publications/Attachments/6941/WP1504.pdf and *Federal Reserve Bank of San Francisco Economic Letter 2016-22* by Julia Bevilaqua and Fernanda Nechio titled 'Fed policy liftoff and emerging markets', available at http://www.frbsf.org/economic-research/publications/economic-letter/2016/july/liftoff-and-emerging-markets/.

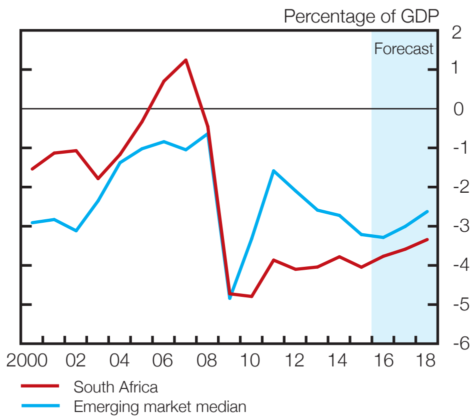
Current account balances for major emerging markets*



* Top 10, based on capital flows: Brazil, Chile, China, India, Indonesia, Mexico, Poland, Russia, South Africa and Turkey

Sources: Institute of International Finance, International Monetary Fund and own calculations

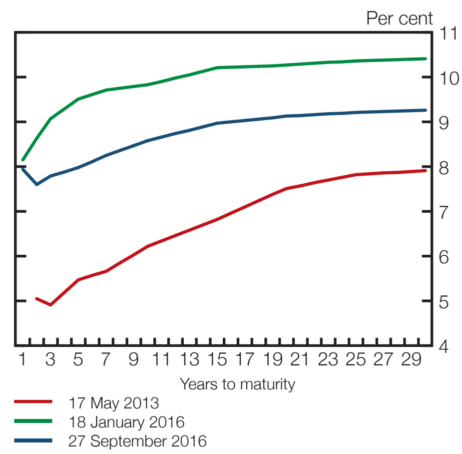
Fiscal balances for major emerging markets*



* Top 10, based on capital flows: Brazil, Chile, China, India, Indonesia, Mexico, Poland, Russia, South Africa and Turkey

Sources: Institute of International Finance, International Monetary Fund and own calculations

Yield curve



Sources: Bloomberg and own calculations

prices – are not expected to bolster growth in the coming years. World commodity markets are still adjusting to a mix of slower growth conditions, relative to the 2000s, and excess capacity left over from the commodity boom, which is depressing prices from both the supply and demand sides. Meanwhile, South African household debt levels remain quite elevated, while government has exhausted most of its fiscal space.

Although household and government balance sheets are insufficiently robust for much further leverage, corporates are more favourably positioned, having generally avoided the wave of private-sector borrowing which has swept emerging markets in recent years. Yet corporate investment is very subdued in an environment of weak business confidence. Gross fixed capital formation has contracted in each of the past three quarters in the mining, manufacturing, construction and commerce sectors; in the first quarter investment declined in all sectors except agriculture. Nonetheless, as the Independent Power Producer Procurement Programme demonstrates, it is possible to attract substantial business investment when closed sectors are opened up to new market players. Such reforms offer an important opportunity for raising both investment and the potential growth rate of the economy. In the absence of new investment, however, potential growth is likely to remain depressed. By the latest South African Reserve Bank (Bank) estimates, it will be barely 1,4 per cent this year and 1,7 per cent in 2018.

In a high-debt, low-investment, low-confidence environment, monetary policy has limited capacity to boost growth. Low interest rates help to minimise debt servicing costs, but with weak borrowing and lending appetites their stimulatory effect is diluted. Furthermore, excessively accommodative monetary policy settings could compromise growth over time. If such settings erode the credibility of monetary policy, then longer-run borrowing costs would likely rise on higher inflation expectations and inflation risk premiums. Recovering lost credibility might, in turn, entail sharp increases in interest rates with more adverse growth consequences.

These are important considerations at a time of elevated inflation. Consumer price index (CPI) inflation[2] has been outside the 3–6 per cent target range for much of the year. The monthly numbers for July and August were 6,0 and 5,9 per cent respectively, but inflation is expected to move back over 6,0 per cent from September and remain above the target range into the second quarter of 2017. This breach of the target traces directly to higher food prices as a result of domestic drought. Yet underlying inflation is also elevated. Core inflation has been above 5 per cent since February 2013, and is expected to peak at 5,9 per cent this year. One of the reasons for the persistence of core inflation is the accumulated pressure of sustained exchange rate depreciation. This is evident, for instance, in rising prices for motor vehicles and other consumer durables, and may also be feeding through to high inflation in services such as medical insurance and education. An important additional explanation is continued, above-inflation increases in wages and salaries. Over the past five years, remuneration growth has averaged just over 8 per cent per year, versus annual headline inflation of 5,4 per cent. Some of the inflationary pressure from these wage and salary increases is absorbed through higher productivity (which is desirable) and higher unemployment (which is not). Still, unit labour cost (ULC) growth is expected at 7,5 per cent this year, followed by 6,0 per cent in 2017 and 5,7 per cent in 2018, higher than headline inflation in each year. Given

2 Unless otherwise stated, inflation refers to year-on-year changes.

this underlying inflationary impetus, headline inflation is not expected to subside below 5,4 per cent in any quarter during the forecast period, which extends to the end of 2018.

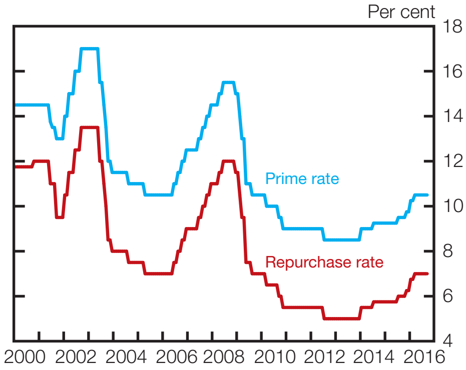
Overview of the policy stance

Monetary policy has responded to rising inflation with a gradual increase in interest rates. This tightening cycle has, so far, divided into two active phases and two pause phases. The cycle commenced in 2014, with the repurchase (repo) rate increasing by three-quarters of a percentage point in the face of rising inflation and an expected extended breach of the target range. Towards the end of 2014, the collapse in world oil prices permitted a pause, providing time to evaluate whether the positive price shock from cheaper petrol would have lasting effects on inflation. By around the middle of 2015 it became clear the relief would be temporary. The tightening cycle therefore re-started with a quarter percentage point adjustment to the repo rate in July. The outlook continued to deteriorate over the following few months: the exchange rate of the rand fell to near-record lows, longer term borrowing costs spiked alongside a large increase in market pricing of sovereign risk,[3] and drought pushed food price inflation into double digits. In response to the worsening inflation outlook, the repo rate was increased by a further percentage point between November 2015 and March 2016, to 7,0 per cent.

More recently, conditions have improved and the cycle has once again paused. Headline inflation is now expected to average 6,4 per cent in 2016, 5,8 per cent in 2017 and 5,5 per cent in 2018, compared – for example – to March 2016 forecasts of 6,6, 6,4 and 5,5 for 2016, 2017 and 2018 respectively. Core inflation forecasts have been revised lower since the start of the year (although core is still expected to reach seven-year highs in 2016, with the peak very close to 6 per cent). Longer-run inflation expectations seem to be holding steady around the top of the inflation target range.

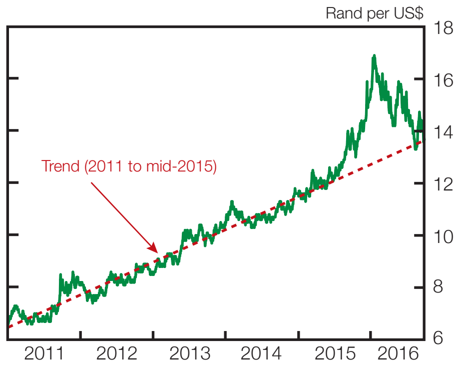
The risks to the inflation outlook remain considerable. However, it is clearer now than it was earlier in the year that the risks go both ways. Two factors stand out. First, food price inflation is expected to moderate and futures contracts suggest that the prices of staple grains will fall towards more normal levels. Much depends on rainfall patterns, however, which could deliver better-than-normal harvests but might also disappoint again. Second, the exchange rate remains volatile and unpredictable. The rand is exposed to both domestic and foreign risks, including additional monetary policy normalisation by the US Federal Reserve and the possibility of credit ratings downgrades. Nonetheless, it has been on an appreciating trend through much of 2016, aided by positive interest rate differentials and more supportive commodity prices, among other factors. Beyond food and the exchange rate, the forecast also relies on ULCs decelerating quite rapidly, from 7,6 per cent growth in 2016 to an average of 5,9 per cent through 2017 and 2018 (somewhat below the post-2011 average of 6,8 per cent). Petrol prices are expected to trend modestly higher on a rising world oil price, but are likely to be volatile on supply disruptions and fluctuations in the exchange rate. Electricity and education prices remain subject to administrative uncertainty. The recent improvements in the inflation forecast are therefore subject to significant upside and downside risks. The pause in the cycle should provide time to resolve some of these uncertainties.

South African repurchase and prime rates



Source: South African Reserve Bank

Exchange rate of the rand against the US dollar



Sources: Bloomberg and own calculations

3 Five-year credit default swaps (CDS) on South African government debt, for instance, nearly doubled from just over 200 basis points at the start of 2015 to almost 400 in early 2016. CDSs are used to insure against default risk.

In sum, monetary policy has traversed a challenging landscape over the past few years. The beginning of 2016 was especially difficult, given deteriorating inflation forecasts from rapid exchange rate depreciation and large increases in food prices – only partially countered by weak world oil prices. Conditions have become somewhat more favourable in recent months, and the inflation forecasts have therefore moderated. These improvements could reverse rapidly in the event of domestic or foreign shocks. As of the September MPC meeting, however, the risks appeared less clearly skewed towards higher inflation than they had been earlier in the year. On balance, it now seems about equally likely that the forecasts might improve from here as that they might deteriorate.

At present, the policy rate remains at the 7,0 per cent level reached in March of this year. Should conditions develop in line with the current forecasts, it may at some point become possible to conclude the policy tightening cycle. However, the bar for loosening policy is high, requiring a substantial, sustained improvement in forecast inflation bringing it more comfortably within the 3–6 per cent target range.

Overview of the world economy

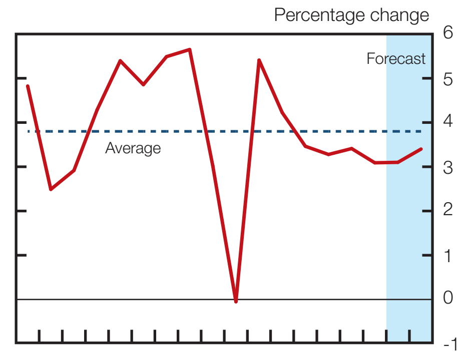
The first half of 2016 has seen a continuation of moderate growth in the world economy, against a background of ongoing monetary accommodation by the world's major central banks and an absence of inflationary pressures in leading economies. Early-year pessimism about a renewed global economic downturn has abated, supporting a mild recovery in commodity prices. Capital flows to emerging markets have also rebounded, mainly reflecting yield differentials with advanced economies. The world economy therefore appears somewhat healthier than it has in the recent past. Nonetheless, there are vulnerabilities which could disrupt the ongoing global recovery, including debt overhangs in emerging markets (especially China) and political shocks comparable to Brexit. Furthermore, world growth potential appears to have slowed, for reasons that remain contested.

Seven years after the Great Recession, a lack of solid economic momentum remains the norm in most of the world. In its July 2016 *World Economic Outlook Update*, for the fifth quarter in a row, the International Monetary Fund (IMF) revised down its forecast for global growth, in this case by 0,1 percentage points for both 2016 and 2017, to 3,1 per cent and 3,4 per cent respectively. Such growth rates compare unfavourably with the 3,8 per cent average of the past 15 years.

The extent to which this deceleration is structural or cyclical in nature remains an open question. Different international institutions hold competing views about the size, or even the persistence, of a global output gap. The IMF, for instance, has emphasised lacklustre growth in most advanced economies, contributing to a persistently negative output gap which now also appears to be closing at a slower pace.[4] The Bank for International Settlements (BIS), however, has argued that growth and employment are close to longer-run averages, implying that the world economy is operating close to potential.[5] The World Bank has also suggested that the global economy is operating close to potential given the gradual increase in the weight of faster-growing countries such as China and India.[6]

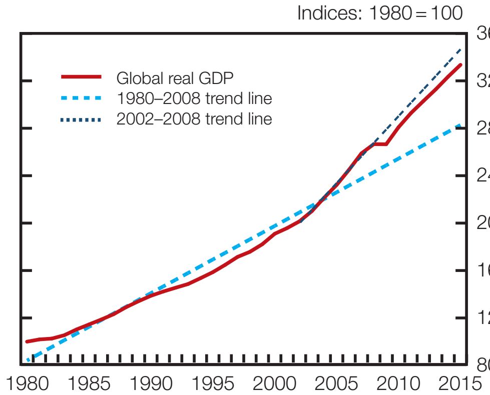
The outcome of this debate has large consequences. If the world economy is operating below potential, policymakers could improve welfare by exploiting record low interest rates to fund fiscal stimulus policies. Monetary settings should also stay looser for longer, and more unorthodox policies might be appropriate given natural limits to negative interest rates. However, if higher growth expectations are simply extrapolations from the boom of the 2000s, then more stimulus could be counterproductive. Further debt accumulation, in the public and private sectors, could undermine financial stability in the event of an economic downturn or a rise in borrowing costs. Furthermore, persistently accommodative financing conditions might permanently erode productivity growth, by artificially prolonging the lives of uncompetitive firms, including banks.

World real GDP growth



Source: International Monetary Fund

Global real GDP



Sources: International Monetary Fund and own calculations

4 See 'Too slow for too long', *World Economic Outlook*, International Monetary Fund, April 2016.

5 See Chapter 1, titled 'When the future becomes today', in the *86th Annual Report* published by the Bank for International Settlements in June 2016.

6 See 'Divergences and risks' in *Global Economic Prospects* published by the World Bank in June 2016.

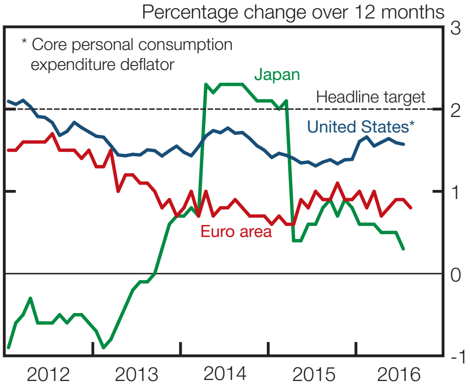
Improved stability

The early months of 2016 saw growing investor concerns that the US economy could tip into recession, amid a drag from earlier US dollar appreciation on net exports and foreign earnings, investment cutbacks in the energy sector and excess inventories. The US economic expansion did slow, with annualised quarter-on-quarter GDP growth easing to 0,8 per cent in the first quarter and 1,2 per cent in the second. However, ongoing job gains and low inflation have bolstered household incomes: the Census Bureau has recently reported a 5,2 per cent increase in middle-class incomes in 2015, the largest annual gain on record. In July the IMF scaled down its forecast for 2016 US growth to 2,2 per cent, from 2,6 per cent in January, but in view of the receding drag from a stronger dollar and excess inventories, the consensus of economists continues to foresee a faster pace of US expansion in late 2016 and 2017.

In the eurozone, forecasters have long been more circumspect about the sustainability of the recovery, owing to banks' slow balance-sheet repair, elevated levels of public debt and structural economic rigidities. Nonetheless, GDP growth has remained positive, with output expanding by 1,6 per cent year-on-year, on average, in the first half of 2016. Policy rate cuts and quantitative easing measures implemented by the European Central Bank (ECB) have supported a gradual recovery in bank lending to the private sector. Declining unemployment and low inflation have bolstered household spending while exports have continued to grow, albeit at a slower pace than in 2014–15. Economic activity also gathered speed in the United Kingdom (UK) up to the middle of the year, but the 'Leave' vote in the 23 June referendum on European Union (EU) membership ushered in a period of economic and policy uncertainty, with subsequent declines in business and consumer confidence as well as downward revisions to consensus forecasts for GDP growth in both 2016 and 2017.

In late 2015 and early 2016, a key source of global uncertainty originated from China, which faced a mix of slowing economic growth, industrial over-capacity, high corporate debt and rising capital outflows. In particular, steps taken by the Chinese authorities in the second half of 2015 to reform their exchange rate policy raised fears of a large-scale renminbi devaluation, boosting global financial market volatility and investor risk aversion. Chinese economic data have since stabilised, however, partly in response to fiscal and monetary stimulus, while authorities have allowed the renminbi to depreciate only gradually on a trade-weighted basis, a move that has apparently assuaged market fears of a more abrupt adjustment.

Advanced economy core inflation



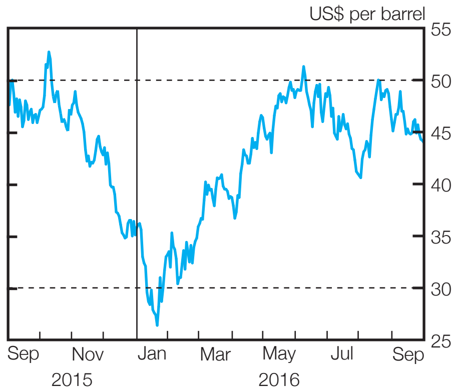
Source: Bloomberg

More generally, inflation has been unusually low in several major economies. In the US, despite some evidence of broader price and wage gains, targeted inflation is still somewhat below the Federal Reserve's medium-term goals. Wages and prices have been considerably more subdued in the eurozone, while Japan has been at risk of sliding back into deflation amid renewed yen appreciation. In China, core inflation has remained remarkably stable at around 1½–1¾ per cent, a pattern replicated in other major Asian economies. This benign backdrop has allowed major central banks to defer policy normalisation (as in the US), or expand monetary accommodation to combat deflation risks (the eurozone and Japan) and pre-empt potential economic weakness (as in the UK).

This global environment has benefitted emerging economies, especially net resource exporters, through easier financial conditions and stronger terms of trade. Most measures of financial market risk improved in the first half of 2016. For example, the JPMorgan Emerging Market Bond Index Plus (EMBI+) spread declined to 342 basis points as of 8 September 2016, from an average of 449 basis points in January/February. Reflecting increased risk appetite, as well as the reduction in downside real economic risks and central bank accommodation, commodity prices rose from the lows seen in early 2016. As of 8 September 2016, the Reuters/CRB commodity index stood 18,5 per cent higher than its trough on 11 February 2016. Of course, performance has varied across the different subsectors. Precious metals have generally out-performed minerals, while oil prices have lagged, with Brent crude repeatedly struggling to break through the US$50 per barrel barrier. Consequently, the improved global financial and commodity price environment since the beginning of 2016 has mostly benefitted non-oil resource exporters, including South Africa.

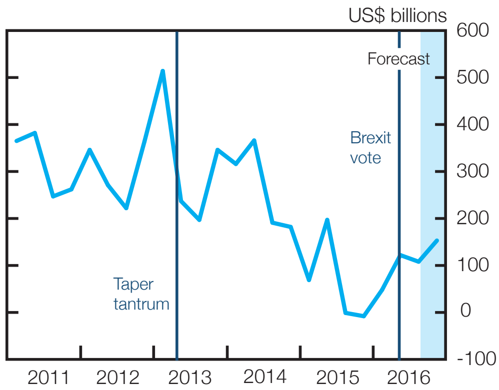
The mix of more favourable ‘push’ (lower government bond yields and financial risk premiums in advanced economies) and ‘pull’ factors (reduced risks to economic growth and commodity-led terms-of-trade gains) facilitated a resumption of capital inflows to emerging markets. The Institute of International Finance projects that private non-resident capital inflows to emerging markets could in 2016 rise to around double 2015 inflow. Indeed, in the six months since March 2016, inflows into debt securities rose to US$46 billion from an outflow of US$30 billion in the preceding 12 months, while equity inflows also gathered pace.

Brent crude oil price



Source: Bloomberg

Emerging markets: total non-resident capital inflows

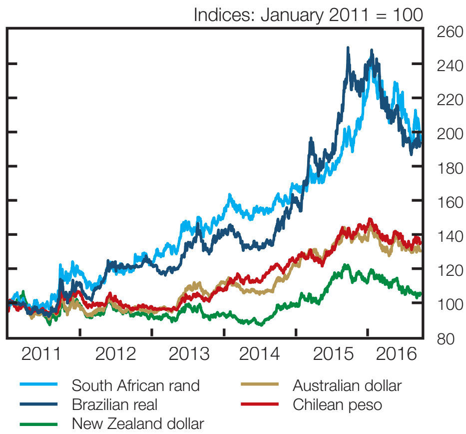


Source: Institute of International Finance

Persistent challenges

Improvements in global financial conditions remain tentative and could easily reverse in the face of shocks, with negative spillovers to emerging markets, especially those with weaker economic fundamentals. GDP growth in emerging markets remains near its slowest pace in 25 years, and the gradual improvement expected in 2016 and 2017 stems mainly from recessions fading in Brazil and Russia, rather than from an actual growth pickup in other major economies. Furthermore, average emerging market public deficit and debt ratios have risen in recent years, while the average current account balance moved into a shortfall last year for the first time since the 1998 Asian Crisis. (The shift into deficit territory mainly reflects large changes in oil-exporting countries and a slightly smaller surplus in China.) Unusually fragile growth, as well as weak fiscal and external fundamentals, leave certain emerging markets vulnerable to potential new episodes of financial stress.

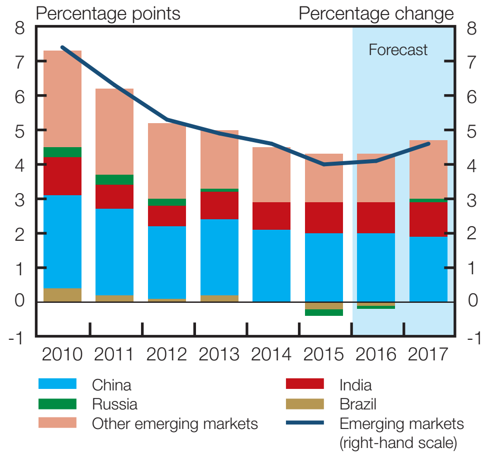
Selected commodity currencies to the US dollar



Sources: Bloomberg and own calculations

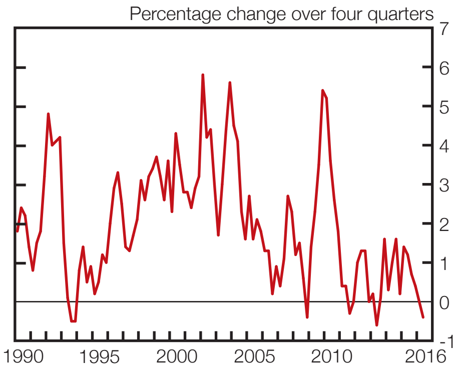
One such episode could result from an acceleration in US inflation, which may lead the Federal Reserve to raise rates at a quicker pace than the consensus currently discounts. Up to now, below-target inflation has provided US policymakers with the leeway to defer policy tightening in response to shocks, such as Brexit, but they may not always enjoy such a margin of manoeuvre. World financial conditions remain exceptionally loose, with low or even negative yields in many advanced economy bond markets. This limits the risk of a sharp tightening of emerging market financial conditions, even if the Federal Reserve raises rates further. Nonetheless, policy shifts towards lesser monetary stimulus, amid a growing debate on its present efficacy, could weaken capital flows into emerging markets.

Contributions to emerging market real GDP growth



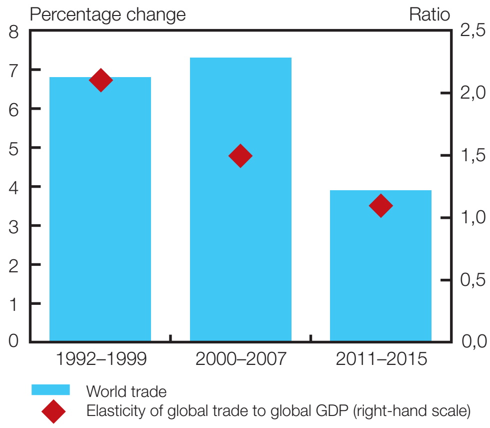
Sources: International Monetary Fund and own calculations

United States labour productivity



Source: Bloomberg

World trade growth and elasticity



Source: International Monetary Fund

At the same time, economic and policy trends in China remain highly uncertain. Historical experience, in particular in developing Asian economies, suggest that rebalancing economies from export- and investment-led growth to a more consumer-led path, rarely happens without significant declines in trend GDP growth. Similarly, comparable periods of rapid debt accumulation have almost invariably ended in abrupt growth slowdowns. Any sharper deceleration in the Chinese economy, relative to consensus expectations, would most probably rekindle uncertainties about its impact on world growth, commodity price levels, and Chinese currency trends.

Furthermore, a number of more structural factors are likely to constrain global growth in the medium term. Among these, subdued productivity growth in advanced economies, and increasingly in several large emerging economies, has yet to be fully understood. In the US, average hourly productivity growth has slowed from as much as 3,2 per cent in the latter half of the 1990s to 2,7 per cent in 2000–07, and as little as 1,0 per cent since 2010. Measures for major European economies display similar trends. The slowdown may reflect temporary factors, including unusually subdued investment since the Global Financial Crisis. However, the moderation in productivity gains, at least in advanced economies, predates the Crisis. Other, longer-term explanations include a slow diffusion of information technology to other sectors, especially those firms that are not operating at the technological frontier; reduced social mobility, increasing inequality in educational outcomes; and even a secular slowdown in the pace of innovation.[7]

Another concern has been the slowdown in world trade growth since the Global Financial Crisis. Data from the IMF show that the elasticity of global trade to global GDP has fallen sharply in the 2011–15 period relative to both 2000–07 and 1992–99. This shift has been more pronounced in emerging economies, and seems to follow from weakness in global fixed investment, which tends to be import-intensive, as well as stabilising global value chains after major shifts over the past 20 years. But trade-restrictive measures, which are being added, on average, at a faster pace than they are being removed, may also play an increasing part.[8]

Finally, large and growing debt stocks have weighed on growth in a number of major economies, and could in coming years limit policymakers' ability to respond to any new economic slowdown. Quarterly statistics from the BIS show that total credit to the non-financial sector, as a share of GDP, rose from 218 per cent in 2011 to 235 per cent by end-2015. For reporting emerging economies only, the increase was even more pronounced, from 133 per cent to 179 per cent over the period.

In summary, a number of headwinds may well continue to affect the world economy in the next few years; and within the emerging world, most regions appear likely to face ongoing challenges. Emerging Asia remains the strongest-performing region, with the IMF expecting real GDP growth of 6,4 per cent this year and 6,3 per cent in the next. However, the region is exposed to a slowing Chinese economy and several countries are characterised by high levels of corporate indebtedness. Central and Eastern Europe's strong trade and financial links to the more advanced European economies render it vulnerable to the latter's potentially unfavourable political-economic dynamics. Latin America continues to display elevated

7 See *The Future of Productivity* published by the Organization for Economic Co-operation and Development in 2015.

8 *Overview of developments in the international trading environment: Annual Report by the Director-General* (Mid-October 2014 to mid-October 2015), World Trade Organisation, 17 November 2015.

vulnerability to commodity price swings and limited policy space, while the Middle East and North Africa still have to adjust to what now seems a structural decline in oil revenues. Finally, sub-Saharan Africa, which had outpaced world economic growth in 2015, is also increasingly grappling with deteriorating external and fiscal fundamentals, tighter financial conditions and insufficient economic diversification (see Box 1).

Box 1 Slowing growth in sub-Saharan Africa: implications for South Africa

Economic activity in sub-Saharan Africa (SSA) has weakened sharply. Over the past decade, the region achieved an average GDP growth rate of 5,5 per cent. The International Monetary Fund's (IMF's) forecast for this year, by contrast, puts growth at 1,6 per cent. This marks a 17-year low, and also the first time since the turn of the century that SSA growth will fall below the global rate. The primary cause of the slowdown has been declining commodity prices, but the negative effects have been magnified by policy choices, including decisions to increase overseas borrowing or ration access to foreign currency.

As a whole, the rest of the world is relatively insulated from slower growth in SSA. Since 2000, the region has on average contributed only 2,8 per cent of global output, and just 0,1 percentage points to world growth. South Africa, however, is much more exposed. SSA is South Africa's most important trading partner region, taking almost 30,0 per cent of South Africa's exports – versus 28,7 per cent and 23,0 per cent for Asia and Europe respectively. Furthermore, South African exports to the region are highly responsive to local growth rates. Since 2000, a percentage point increase in SSA's dollar-denominated trade-weighted growth has on average increased South Africa's dollar-denominated exports to the region by 0,8 percentage points.[1] In dollar terms, exports have contracted by 27,7 per cent since 2011, which corresponds to a 28,8 per cent decline in US dollar-denominated, trade-weighted GDP over the period.

South Africa runs a consistent trade surplus with SSA, averaging almost 2 percentage points of GDP since 2000. That surplus has also grown with time reaching 4,6 per cent of GDP in 2015. Without SSA trade, the overall trade balance of -1,25 per cent in 2015 would have been -5,8 per cent.

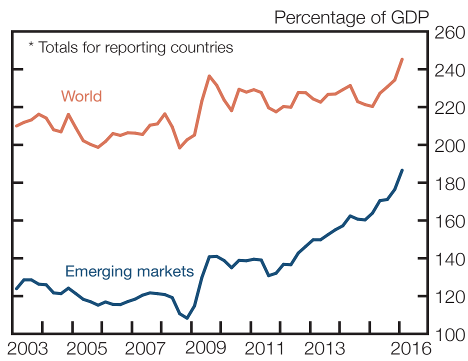
Furthermore, South Africa's exposure to the region is not limited to the trade account. SSA has been an increasingly important investment destination for South Africa. As a result, the proportion of South African assets in SSA, as a share of total assets, has more than doubled over the past decade. Hence, lower growth outcomes in SSA could decrease dividends repatriated from the region, worsening the outlook for the overall current account balance.

1 Both trade-weighted GDP and export values are denominated in US dollars and exclude the SACU region.

Conclusion

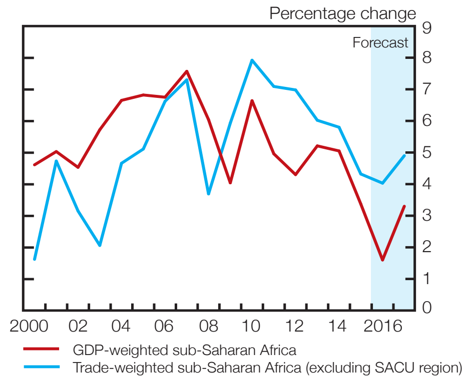
Nearly a decade after the onset of the Global Financial Crisis, the world economy continues to grow, yet at a pace that now looks structurally weaker than pre-Crisis trends. Productivity growth has stagnated, exacerbated by slower world trade growth and businesses remaining cautious about new investments. More positively, inflation is generally low, allowing major central banks to maintain a sizable degree of monetary accommodation, which in turn compresses global bond yields and channels capital towards higher-yielding emerging markets. Risks therefore remain that geopolitical or financial shocks could force a sudden tightening in global financial conditions, at a time when growth dynamics lack resilience.

Total* credit to non-financial sector



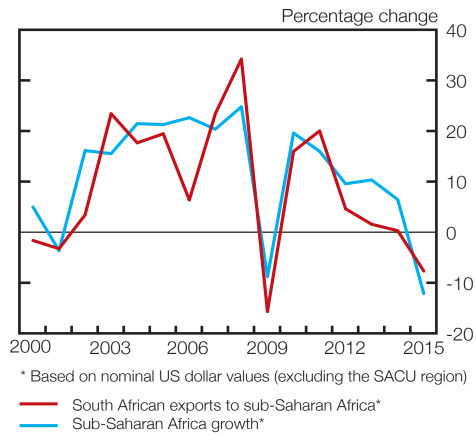
Source: Bank for International Settlements

GDP growth in sub-Saharan Africa



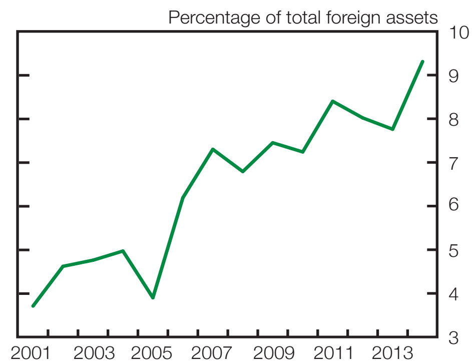
Sources: International Monetary Fund, Department of Trade and Industry, and own calculations

Sub-Saharan African growth and South African exports to the region



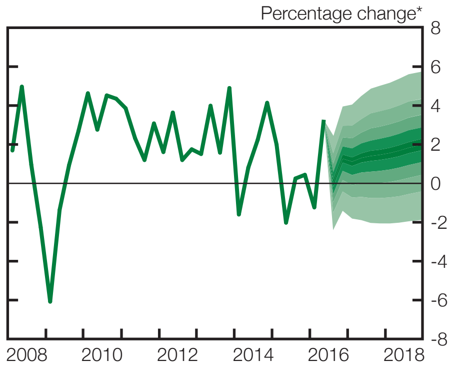
Sources: International Monetary Fund and own calculations

South African assets in sub-Saharan Africa



Source: South African Reserve Bank

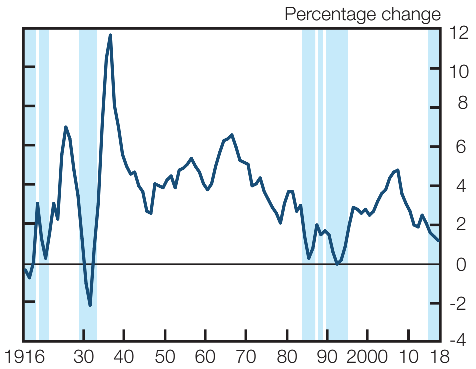
Real GDP growth outcomes from the October 2016 *MPR*



* At seasonally adjusted annualised rates

Sources: Statistics South Africa and South African Reserve Bank

South Africa's five-year rolling average real GDP growth

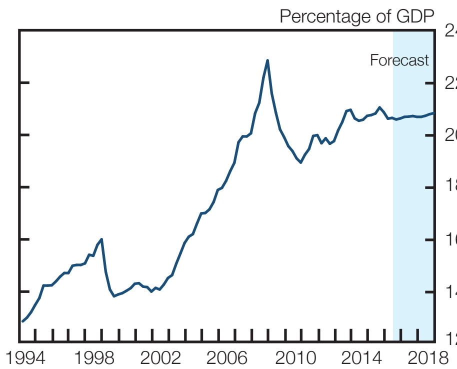


Growth below 2012–2016 average

Five-year rolling average

Source: South African Reserve Bank

Investment as a share of GDP



Source: South African Reserve Bank

Overview of the domestic economy

The recent period of low economic growth reflects both cyclical and structural factors. It is now quite clear that the economy is several years into a major structural slowdown. Potential growth has subsided to around 1,5 per cent, less than half longer-run averages. Cyclical factors retain some explanatory power, particularly for this year's near-zero growth forecast. Over the next few years, growth is likely to accelerate marginally, but is unlikely to return to longer-term averages without reforms which generate stronger investment and renewed productivity growth.

South African GDP growth has trended steadily lower since 2010. Output is unlikely to expand in any meaningful way this year, and growth forecasts suggest only a slight rebound over the next two years. The ongoing slow-growth episode is proving unusually prolonged. In the past two decades, no other period has had such a low average growth rate. Indeed, over the past century, five-year moving averages have only been lower in the late 1980s and early 1990s – periods of acute political instability – and much earlier, around World War I and the Great Depression.

The slump has two components. One is weak demand, meaning the gap between what the economy can produce at potential and what it actually is producing. The other component is declining potential growth, defined as the growth rate the economy can achieve with stable inflation. It is clear that potential growth has slowed dramatically, from around 4 per cent at the height of the boom to roughly 1,4 per cent in 2016. At the moment, actual growth is falling below even this low level. In these conditions, monetary policy can help narrow the gap between potential and actual growth. As such, interest rates remain quite low relative to most estimates of 'neutral' levels, and the exchange rate is also advantageous and should be generating a stronger export response. However, achieving a growth rate closer to the post-1994 average of 3 per cent, or the National Development Plan goal of over 5 per cent, requires higher potential growth. This is beyond the scope of stimulatory macroeconomic policies and requires a broader reform agenda.

Investment

According to the Commission on Growth and Development, for an emerging market to achieve sustained growth it must typically invest at least 25 per cent of GDP.[9] South Africa has not achieved this threshold in over three decades. Investment did accelerate in the 2000s, peaking at just above 23 per cent of GDP, which helped to amend for the long period of investment neglect through the late 1980s and 1990s. In the post-Crisis period, however, investment has declined, led by a fall in private-sector investment. Total investment is currently at around 20 per cent of GDP, and is expected to remain at about these levels over the next three years.

The private sector led the investment upswing of the 2000s, contributing about two-thirds of the total real growth in investment, with the remaining third split almost equally between public corporations and government. During the Global Financial Crisis, private investment contracted sharply but rebounded soon afterwards. In the period 2011–13, total real investment growth declined to 5,0 per cent per annum, compared to 9,4 per cent

9 See *The growth report: strategies for sustained growth and inclusive development* published by the Commission on Growth and Development in 2008 (p.34).

between 2000 and 2008, but the private sector contributed almost three-quarters of overall investment growth, a slightly larger share than it had in the 2000s.

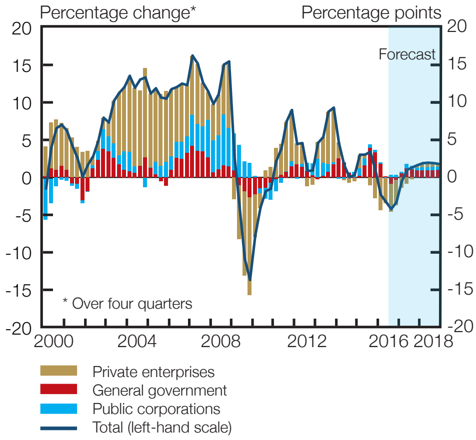
After 2013, however, the pattern changed. Private investment has contracted in seven of the past ten quarters. Over this period, the little investment growth South Africa achieved came mainly from the public sector, mostly from general government but with minor contributions from state-owned enterprises. Furthermore, the forecast suggests that the contribution from private investment is expected to be negative until mid-2017 and barely positive thereafter, with marginal positive growth expected from government and public entities.

On a sectoral basis, considering only private-sector investment, the largest contributors to investment growth in the 2000s were finance, mining and manufacturing. The contribution from mining was perhaps smaller than might be expected for a commodity economy: the sector provided less than a fifth of overall investment growth in the 2000s, and although it has faded in the post-Crisis period, the growth rate has not been negative on average. Indeed, investment in finance (which includes real estate) displays a clearer boom and bust pattern than mining investment, contributing over twice as much to total investment as mining did in the 2000s and then contracting at an average rate of 0,4 per cent from 2011.

In recent years, the electricity industry has been an important source of private investment. The category stands as proof of the growth that can be achieved by opening restricted sectors to new investors. Without such reforms, however, private investment is unlikely to recover strongly. Business confidence is subdued. In the second quarter of 2016, for instance, the Rand Merchant Bank/Bureau for Economic Research (RMB/BER) Business Confidence Index reached its lowest point since the Global Financial Crisis. It rebounded in the third quarter, probably driven by the same factors which supported the rand rally, but it remains at low levels. The BER's survey of manufacturers point to several constraints on investment. Answers related to weak demand and shortages of skilled labour feature prominently in recent surveys, and have become more common relative to long-run averages. The single biggest obstacle to investment, however, is political uncertainty, a response which recently attained its highest frequency since the inception of the series in 1987.[10]

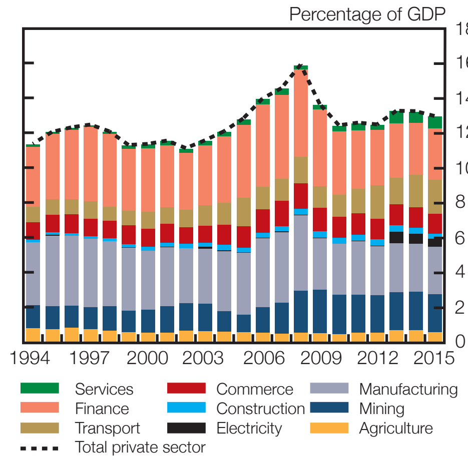
Compared to the universe of emerging markets, South Africa's investment levels appear low. The comparison is distorted by extreme levels of investment in China, which remain at over 40 per cent of GDP, but even with China excluded South Africa's investment levels remain somewhat below the emerging market average. They are, however, still above the longer-run domestic average (which is just 17 per cent for 1994–2015). The South African investment narrative is therefore quite complex. Although investment levels are too low to support rapid and sustained growth, they are still quite elevated from an historical perspective. They are surprisingly high given the weakness of GDP growth, perhaps reflecting low borrowing costs, and they are also high relative to savings.

Investment growth by type of organisation



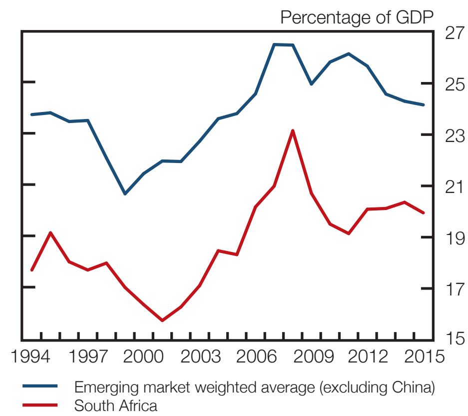
Source: South African Reserve Bank

Private-sector investment



Source: South African Reserve Bank

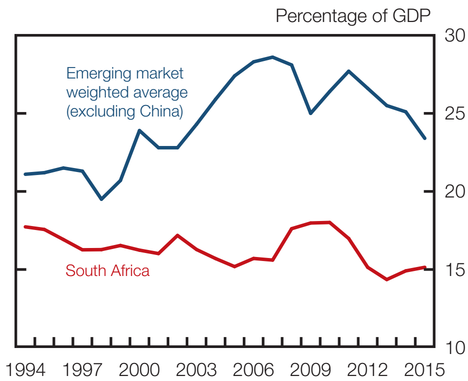
Investment: comparison with emerging markets



Sources: International Monetary Fund and own calculations

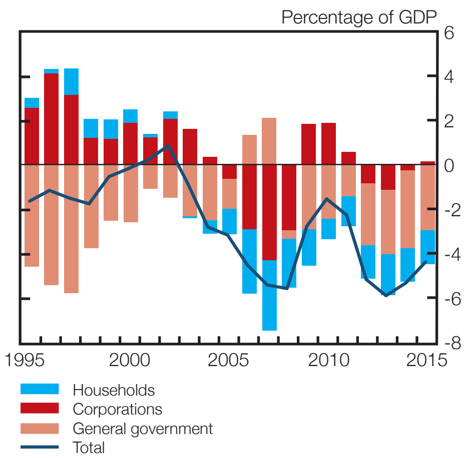
10 Specifically, the BER survey asks if the 'general political climate' is a constraint.

Savings: comparison with emerging markets



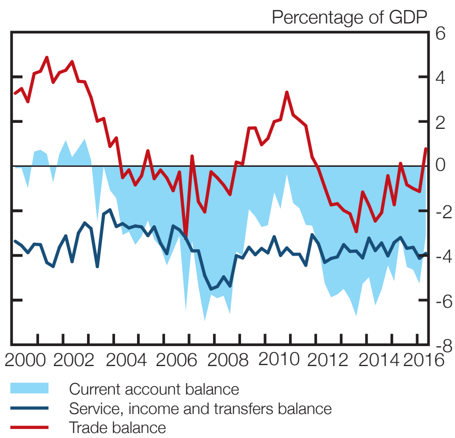
Sources: International Monetary Fund and own calculations

Gross saving minus gross capital formation



Source: South African Reserve Bank

Current account and components



Sources: South African Reserve Bank, South African Revenue Service, IHS Global Insight and own calculations

Savings

In a closed economy, all investment must be funded out of domestic savings. In an open economy, however, it is possible to import savings and thereby boost investment levels beyond the domestic savings constraint. The most successful growth cases are typically countries which save large portions of income for investment. Countries with low savings rates, however, need to borrow, within limits, to fund investment and thereby lift growth. South Africa has long been characterised by a low savings rate, and has therefore imported foreign savings to finance investment. Dependence on foreign funding has grown in recent years, however, as domestic savings have declined. This has magnified South Africa's exposure to shifting global financial conditions.

Historically, the savings choices of households, corporates and government have tended to vary, with one party almost always behaving contrary to the others. In the 1990s, for instance, government dissaving was roughly balanced by household and corporate savings. By the late 2000s, the position had reversed, and government surpluses were partially offsetting household and corporate borrowing. In recent years, however, all three contributors to savings have reduced their saving levels, which has created a large savings gap. The biggest swing factor is government, which has become the main source of economy-wide dissaving. Households have also maintained a substantial dissaving position, however, and even corporates have been modest net borrowers through 2012–14 (with a small positive contribution in 2015). The resulting savings gap provides one perspective on South Africa's persistently large current account deficit. The other perspective – on what imported savings bought – is detailed in Box 2.

Box 2 Disaggregating the trade component of the current account

South Africa tends to run large current account deficits when the economy is doing well, both because of savings flowing in from abroad and because of rising imports of capital and consumer goods. Since 2011, however, growth has slowed markedly even as the current account deficit (CAD) has expanded. Disaggregating the trade balance shows that machinery imports – mostly for investment – have been resilient despite slowing growth, suggesting investment has become less productive. Commodity trends are also important for explaining swings in the trade balance, and in recent quarters vehicle exports have become more significant.

Focus on trade…

The trade balance forms one part of the overall current account balance, and is usually smaller than the services, income and current transfers account. In 2015, for instance, the annual current account deficit of 4,4 per cent of GDP was made up of 3,5 percentage points from the services, income and transfers account and just 0,9 percentage points from the trade balance. The trade balance tends to be the swing variable, however, producing large current account deficits when it turns negative and closing the CAD when it shifts into positive territory. (The correlation between the two is 0,95 over the past decade.)

… specifically, trade in commodities and machinery

Although the trade data are very complex, historically the trade balance has been tightly tied to just two broad categories: machinery imports (including transport equipment) and net commodities, the latter defined as the top four commodity exports (iron ore, coal, platinum and gold) less imports of oil and oil-related products. These two categories explain the current account narrowing which followed the Global Financial Crisis, from -6,6 per cent of GDP in the third quarter of 2008 to -0,4 per cent of GDP in the fourth quarter of 2010. Oil import costs fell faster than commodity export earnings, producing a net commodity gain of about 1,5 percentage points of GDP between 2008 and 2010. Meanwhile, machinery imports fell, from around 11 to 7 per cent of GDP.

In the post-Crisis period, export commodity and oil prices bounced back from Crisis-era lows. Yet whereas export commodity prices peaked in 2011 before declining, oil prices stayed high all the way until the second half of 2014. This decline in South Africa's commodity terms of trade explains the widening of the CAD following the Crisis. When oil prices finally began falling in 2014, the CAD improved, and kept narrowing – from over 5 per cent of GDP to just over 3 per cent of GDP – until export commodity prices weakened again in 2015.

Commodity exports, oil and machinery imports

Per cent

Date	Commodity exports	Oil imports	Machinery and transport imports
2004	7,5	-2,8	-7,6
2005	7,3	-2,9	-7,6
2006	8,2	-4,4	-8,6
2007	8,8	-4,7	-9,3
2008	10,0	-6,4	-10,6
2009	8,4	-4,3	-7,1
2010	9,0	-3,9	-7,0
2011	10,5	-4,8	-7,8
2012	9,5	-5,5	-8,1
2013	9,5	-5,8	-8,9
2014	8,5	-6,3	-8,7
2015	7,8	-3,9	-9,0
2016	7,9	-3,0	-8,5

Sources: IHS Global Insight and South African Revenue Service

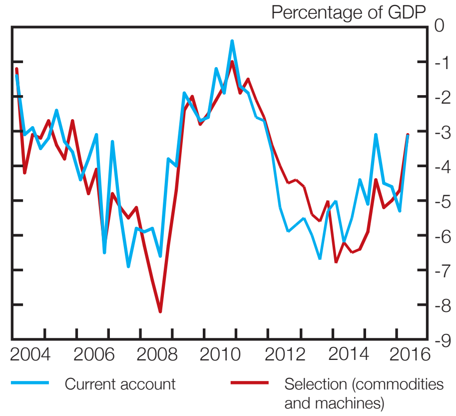
Meanwhile, machinery imports quickly recovered to between 8 and 9 per cent of GDP soon after the Crisis, as a consequence of the investment to GDP ratio rebounding to around 20 per cent. These imports have been diverse: personal computers, transformers, trucks and turbines are all significant, but collectively only explain around a third of machinery imports, with the balance coming from a large number of smaller categories.

Rebalancing?

Imports have compressed somewhat since mid-2015, with imports of oil-related products and machinery declining by a cumulative 1,5 per cent of GDP over four quarters. There have also been gains in vehicles, textiles, clothing and wood, and chemicals (totalling 1,3 percentage points over four quarters). Food imports have climbed to a high of 2,2 per cent of GDP, reflecting domestic shortfalls from drought, but this only adds about 0,3 percentage points to imports.

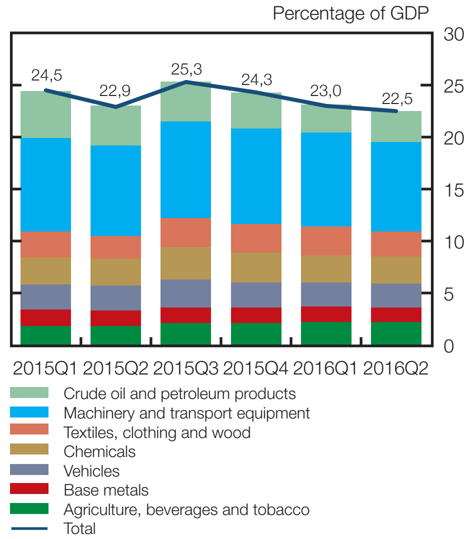
Export performance has deteriorated in three of the past four quarters, but a strong improvement in the second quarter of 2016 has interrupted this trend. As a result, the current account deficit narrowed from 5,2 to 3,1 per cent of GDP. Vehicle exports have risen to 3,3 per cent of GDP. Platinum group metals and gold have also picked up in the latest quarter, from a low level.

Correlates of current account deficit



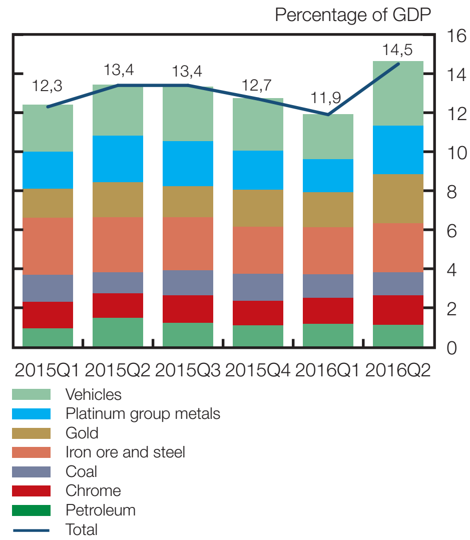
Source: South African Reserve Bank

Major imports



Sources: South African Revenue Service and South African Reserve Bank

Major exports

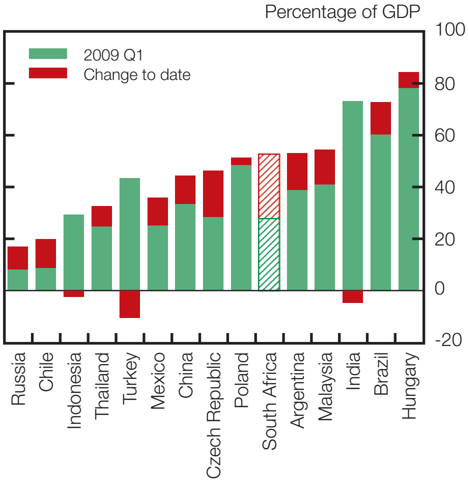


Sources: South African Revenue Service and South African Reserve Bank

Debt

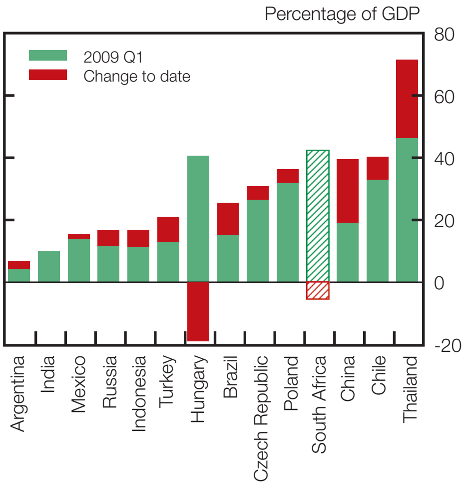
Given low savings, household and government debt positions leave limited room for more borrowing and therefore leverage-driven growth. Government entered the crisis with comparatively large amounts of fiscal space, but its debt-to-GDP ratio has almost doubled since 2008. This explains the appropriateness of fiscal consolidation. However, the slowdown in government borrowing weakens one of the main growth drivers of the economy in recent years. In future, the main growth contribution from government will not come from overall spending aggregates but from the

General government debt



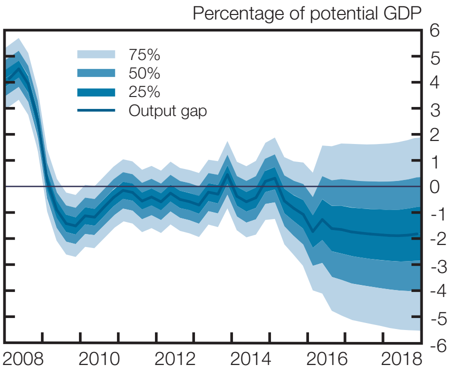
Sources: Bank for International Settlements and own calculations

Household debt



Sources: Bank for International Settlements and own calculations

Output gap uncertainty



Source: South African Reserve Bank

composition of spending. Inasmuch as government investment is protected, and cost control mainly affects consumption – particularly the state wage bill – it will be more growth friendly. Consolidation at the expense of investment, however, will be detrimental for longer-run growth.

The household sector is similarly ill-positioned to drive growth through greater leverage. Household debt stocks expanded rapidly in the late 2000s, reaching a peak close to 90 per cent of disposable income. They have trended gradually lower in subsequent years, to slightly below 80 per cent of incomes, reflecting households' desire to reach more comfortable debt levels as well as tighter credit standards than those in force before the Global Financial Crisis. The composition of borrowing is also important: in the post-Crisis period, leverage has shifted from financing asset accumulation, particularly through mortgages, to supporting consumption. Given these constraints, it is unsurprising that credit to households has been contracting, in real terms, since about the start of 2014.

With reduced domestic saving and more borrowing from the world, South Africa's net international investment position should be deteriorating. The flexible exchange rate, however, has once again provided an adjustment mechanism, insulating the economy. In the first quarter of 2016, South Africa's net international investment position actually reached its highest level since records began in 1956. This chiefly reflects valuation effects, with rand depreciation supporting the value of foreign currency assets held by South Africans while suppressing the value of rand assets held by foreigners.

The output gap

In the post-Crisis environment, estimates of the output gap have been persistently negative in real time. With the benefit of new techniques and hindsight, however, the revised estimates have been much smaller or even zero. The reason for this is that the economy's potential growth rate was originally overstated, with the result that disappointing growth was interpreted as a cyclical phenomenon rather than a structural problem.

This record justifies a cautious approach to interpreting output gap data. For this reason, the estimates are presented within a range to convey uncertainty. The range is wide: at present, the 75 per cent confidence band stretches from -4,0 to 1,5 per cent of potential GDP. The midpoint of the range, however, is currently at around -2 per cent of potential GDP, and most of the range is below zero. It therefore fits the intuition that potential growth probably has not fallen all the way to zero, or lower, and as such the economy is currently operating below its 'speed limit', even if that limit is much lower than it used to be.

The current output gap is therefore almost certainly negative, despite the uncertainty invariably attached to the concept. According to the most recent estimates, which incorporate data revisions from Statistics South Africa (Stats SA), this gap began widening quite recently. The central projection for the output gap was actually slightly positive in late 2014, but became gradually more negative over the course of 2015, with actual growth for the year coming in at 1,3 per cent compared to a potential growth rate of 1,5 per cent. The gap has been widening more sharply this year, given a much bigger distance between potential (estimated at 1,4 per cent) and actual growth (currently forecast at 0,4 per cent). The gap then stays close to current levels across the forecast horizon, reflecting growth forecasts closer to potential through 2017 and 2018.

Recent growth outcomes

In the first quarter of 2016, growth was expected to be low, but it still surprised on the downside at -1,2 per cent.[11] The agricultural sector, which had contracted throughout 2015, once again posted a negative growth rate – which was to be expected given the ongoing drought. The biggest surprise in the data was the mining sector, which contracted by 18,1 per cent, contributing -1,5 percentage points to overall GDP growth.

Growth in the second quarter of the year was significantly stronger, at 3,3 per cent. As anticipated, the mining sector rebounded, contributing 0,8 percentage points to growth. The manufacturing sector added a further 1,0 percentage point, largely due to strong vehicle exports. Although 3,3 per cent growth was above expectations, it should not be interpreted as clear evidence of a growth rebound. The quarterly base effects were flattering; in year-on-year terms, the growth rate was just 0,6 per cent. The second-quarter figures also pointed to some rotation in demand, with domestic expenditure weakening and net exports serving as the main growth driver.

Growth forecasts and risks

The 2016 forecast was marked up for the September meeting of the MPC, from 0 per cent to 0,4 per cent, the first upward revision in a growth forecast since March 2013.[12] Over the next two years, growth is expected to accelerate gradually, to 1,2 per cent in 2017 and 1,6 per cent in 2018. These forecasts put growth much lower than historical norms, reflecting the ongoing weakness of potential growth. They nonetheless portray a rebound in growth, which is based on several factors. First, world growth is expected to improve, which – in combination with a competitive exchange rate – yields higher net exports. Second, investment should recover from the 2016 contraction, mainly because of public sector investment growth. Household consumption should also move slightly higher. It is however expected to grow more slowly than GDP in 2017 and 2018, with rising unemployment offsetting persistent real wage growth. Real government consumption is expected to edge lower in 2017 and 2018, as per National Treasury's consolidation strategy.

The principal downside risks to this forecast are that the household sector could weaken more than expected and the external sector might not be as strong as forecast. However, there are also upside risks. The forecast is for very low growth numbers, well below historical averages, and simple regression to the mean would imply a growth rebound. The upward revision to the 2016 growth estimates may mark the end of an extended period of growth projections being systematically too high.

Conclusion

One of the most difficult aspects of macroeconomic management is distinguishing cyclical and structural growth patterns. South Africa's economy has decelerated steadily since 2011. This slowdown was initially diagnosed as a cyclical problem, but it has since become clearer that it has mainly structural causes. Productivity growth has shifted to a lower level and investment growth has declined, with private-sector investment now contracting. As a result, the economy's potential growth rate has weakened to approximately 1,4 per cent, around half longer-run historical averages.

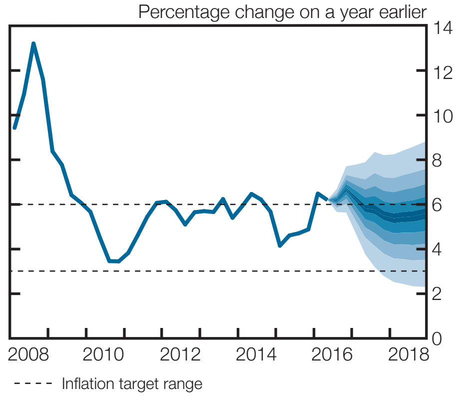
11 Quarter-on-quarter, seasonally adjusted annualised rate.
12 That adjustment moved the 2013 annual growth forecast from 2,63 to 2,82 per cent.

With growth falling below even these low levels in both 2015 and 2016, monetary policy has helped support demand with low real interest rates. Yet the fundamental problem is one of diminished potential, and restoring growth rates to historical averages will therefore require deeper, structural reforms. Without such measures, the economy is expected to expand at rates between 1 and 2 per cent for the foreseeable future, generating little or no improvement in employment or individual living standards.

Inflation developments and outlook

Headline CPI has been outside the 3–6 per cent target range for much of the year to date, and is expected to average 6,4 per cent for the year as a whole. The breach of the inflation targets stems mainly from high food prices. Underlying inflation is also elevated, however, with core inflation at seven-year highs. This reflects pass-through from an extended period of currency depreciation, as well as pricing behaviour in labour and product markets, which generate persistent ULC growth and ensure it is translated into higher prices. These inflationary factors are being offset by a negative output gap and the credibility of monetary policy, reinforced, more recently, by some exchange rate appreciation. Accordingly, headline inflation is expected to trend lower over the forecast period, averaging 5,8 per cent in 2017 and 5,5 per cent in 2018.

Targeted inflation* forecast



* CPIX for metropolitan and other urban areas until the end of 2008; CPI for all urban areas thereafter

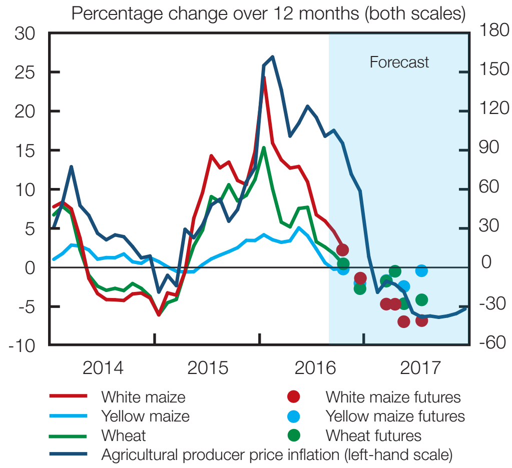
Sources: Statistics South Africa and South African Reserve Bank

Food prices

South Africa's worst drought in recent decades has lifted food prices, pushing food and non-alcoholic beverages inflation from 4,4 per cent in the third quarter of 2015 to 10,8 per cent in the second quarter of 2016. The contribution to targeted inflation from this category has risen from 0,7 percentage points to 1,7 percentage points. Food inflation is likely to peak above 12 per cent towards the end of 2016, and then fall to below 6 per cent in the last few months of 2017, assuming more normal weather conditions and favourable base effects.[13]

The largest contributions to the acceleration in food price inflation have come from two categories: fruit and vegetables, and bread and cereals. Neither of these food price drivers is expected to add to food price inflation beyond late 2016; the fruit and vegetable category likely peaked in the second quarter of 2016 and bread and cereals should moderate after the fourth quarter.

Selected agricultural prices and producer price inflation



Sources: Statistics South Africa, SAFEX and South African Reserve Bank

Consumer food price inflation

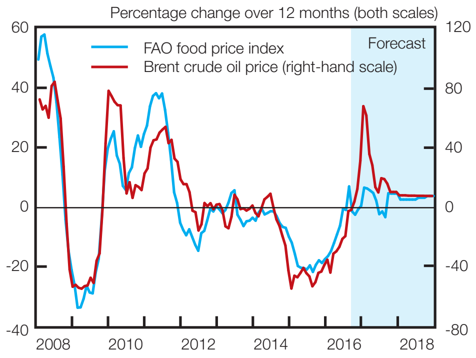
Percentage change over 12 months and contributions in italics (percentage points)

		Actual		Forecast		Actual				Forecast					
	Weight	2011–2014	2015	2016	2017	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4
Food and non-alcoholic beverages	15,41	6,9	5,1	10,8	6,0	4,4	5,1	8,3	10,8	11,8	12,3	8,2	6,4	5,5	4,0
		1,1	*0,8*	*1,7*	*0,9*	*0,7*	*0,8*	*1,3*	*1,7*	*1,8*	*1,9*	*1,3*	*1,0*	*0,9*	*0,6*
Bread and cereals	3,56	7,2	5,0	14,6	8,5	5,7	7,3	10,8	14,7	15,9	16,7	12,7	8,8	7,3	5,7
		0,3	*0,2*	*0,5*	*0,3*	*0,2*	*0,3*	*0,4*	*0,5*	*0,6*	*0,6*	*0,5*	*0,3*	*0,3*	*0,2*
Meat....................	4,56	7,3	5,9	6,4	8,5	5,0	4,2	5,2	6,1	6,1	8,1	9,2	9,1	8,3	7,6
		0,3	*0,3*	*0,3*	*0,4*	*0,2*	*0,2*	*0,2*	*0,3*	*0,3*	*0,4*	*0,4*	*0,4*	*0,4*	*0,3*
Oils and fats	0,55	8,4	4,0	17,4	6,4	5,1	11,9	17,8	19,4	18,4	14,5	9,1	7,1	5,8	3,9
		0,0	*0,0*	*0,1*	*0,0*	*0,0*	*0,1*	*0,1*	*0,1*	*0,1*	*0,1*	*0,0*	*0,0*	*0,0*	*0,0*
Vegetables...........	1,61	7,2	0,8	16,3	2,7	-1,7	4,0	18,1	20,9	15,1	11,1	1,5	-0,4	5,9	3,9
		0,1	*0,0*	*0,3*	*0,0*	*0,0*	*0,1*	*0,3*	*0,3*	*0,2*	*0,2*	*0,0*	*0,0*	*0,1*	*0,1*

Sources: Statistics South Africa, South African Reserve Bank and own calculations

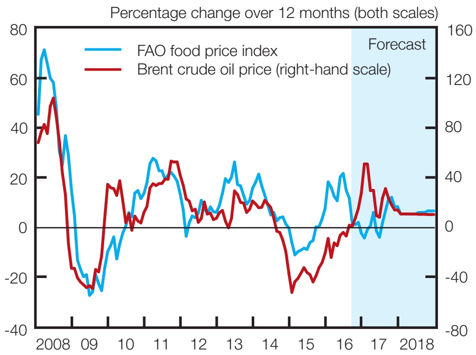
13 To gauge the impact of higher agricultural prices on food prices, the South African Reserve Bank has developed a supplementary food model for the food supply chain. Results show that a 10 percentage point increase in agricultural food prices (from PPI) leads to a 3 percentage point increase in CPI food prices. In the model, half of the shock to agricultural prices (i.e. 1,5 percentage points) is transmitted to consumer food prices within three months, while the remaining half is passed through during the subsequent nine months.

International food and crude oil prices in US dollar terms



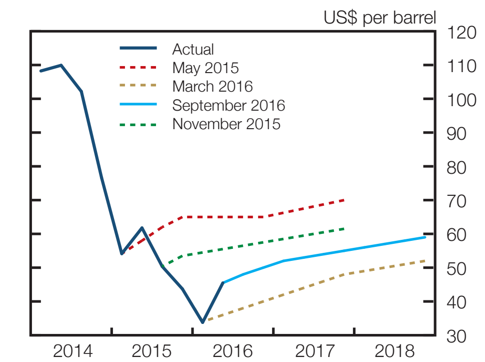
Sources: International Monetary Fund, United Nations Food and Agriculture Organization (FAO), Reuters and own calculations

International food and crude oil prices in rand terms



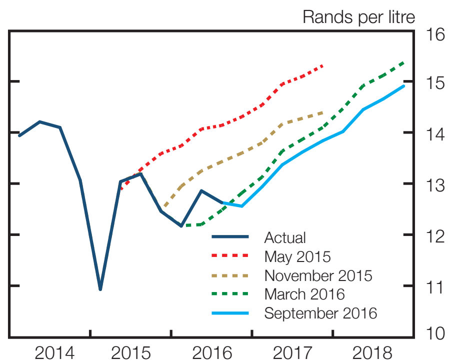
Sources: International Monetary Fund, United Nations Food and Agriculture Organization (FAO), Reuters and own calculations

Evolution of crude oil price forecasts



Sources: Bloomberg and South African Reserve Bank

Evolution of petrol price forecasts



Sources: Department of Energy and South African Reserve Bank

Meat price inflation, however, is expected to be over 8 per cent from the fourth quarter of 2016 to the last quarter of 2017, with the peak due early in 2017. The lag in meat prices is explained by farmers withholding animals from markets, so as to replenish the stocks depleted during the drought phase.

While local agricultural food prices have risen and placed pressure on domestic food inflation, international agricultural food prices (in US dollar terms) have been in deflation for 52 of the last 57 months. This has, in part, been a story of generally good crops and much lower input costs due to cheaper oil. South African consumers have unfortunately lost out on the benefits of cheaper world food prices due to persistent currency weakness. Looking ahead, world food prices are expected to be fairly stable, a forecast predicated on continued low international oil prices and broadly favourable weather conditions.

Petrol prices

Petrol prices have been in deflation in 19 of the past 22 months, the first quarter of 2016 being the only exception to the deflationary trend. At present, around 45 per cent of local petrol prices is determined by international prices[14], while the remaining 55 per cent is explained by domestically determined taxes and margins. The first category is the main source of volatility in local prices, however, both through fluctuating world oil prices and the exchange rate of the rand.

Brent crude oil has traded in a band of roughly US$30 to US$50 per barrel over the past year. Prices have risen somewhat from January 2016 lows, but are still well below the 2011–14 average of US$108 per barrel. The combination of continued low oil prices and the recent currency appreciation has also helped to keep the local petrol price in deflation this year, subduing the base effects which had previously been expected to exaggerate the 2016 inflation outcomes.

The plunge in international crude oil prices in late 2014 and early 2015 was driven by both supply and demand factors. On the supply side, a decade of relatively high prices incentivised oil companies to raise production. The ensuing increase in supply coincided with slowing growth in large emerging economies, leaving a supply glut. Producers have improved extraction efficiencies and cut costs so that global average oil production costs are now lower, averaging about US$45 per barrel. This means that more suppliers can survive in a low-price environment. As a result, oil prices are less likely to rebound sharply over the medium term.

In the short run, various factors could contribute to persistent oil price volatility. Over the past six months, for instance, supply disruptions have restricted production in Canada, Nigeria and Venezuela. Such volatility poses a forecasting challenge, with the oil price assumption fluctuating from meeting to meeting. The assumption for the March 2016 MPC meeting was lower across the forecast period compared with that of November 2015, but the September 2016 assumption was somewhat higher: Brent crude oil prices were assumed to average US$44,30 for 2016 and US$53,50 for 2017, US$7 and US$9 higher for these years than at the March 2016 MPC. Based on this most recent assumption, petrol price inflation is projected at 1,0 per cent and 7,0 per cent in 2016 and 2017 respectively.

14 International prices are denominated in rands, meaning they include exchange rate effects and include refinery costs, freight to South Africa and insurance.

Electricity prices

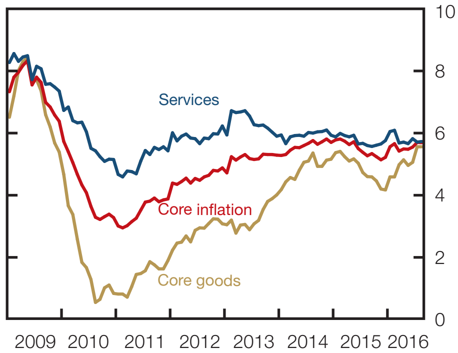
Forecasting electricity prices has been difficult in recent years because of changes to the multi-year pricing agreements. The existing agreement provides for an average electricity price increase of 8 per cent annually for the five financial years from 2013/14 to 2017/18. In August, the North Gauteng High Court ordered Eskom to forgo part of the latest increase given methodological errors in an earlier application for a higher tariff setting. If this order still holds by the time municipal tariff increases are tabled in Parliament – which must occur by 15 March 2017 – then electricity prices could increase by only 3,4 per cent in 2017/18.

Given the uncertainty around this process, the Bank forecast does not include a sharp fall in electricity price inflation. Rather, the forecast assumption is for additional Eskom increases of 9 per cent and electricity CPI increases of 8 per cent for both 2017/18 and 2018/19. Should the lower number take effect, however, then headline inflation could be lower by about 0,2 percentage points.

Core inflation

Core inflation is projected to increase from an average of 5,5 per cent in 2015 to 5,7 per cent in 2016, before moderating to 5,6 per cent in 2017 and 5,2 per cent in 2018. The outlook for core has improved recently, falling 0,5 percentage points for 2016 from the 6,2 per cent predicted at the time of the March 2016 MPC. However, even with this improvement core is still at its highest levels since late-2009.

Core inflation and its components



Sources: Statistics South Africa and South African Reserve Bank

Targeted inflation

Percentage change over 12 months and contributions in italics (percentage points)

		Actual		Forecast		Actual				Forecast					
	Weight	2011–2014	2015	2016	2017	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4
Targeted inflation	100,00	5,6	4,6	6,4	5,8	4,7	4,9	6,5	6,2	6,2	6,7	6,2	5,8	5,8	5,5
Core inflation* ...	74,78	4,7	5,5	5,7	5,6	5,3	5,2	5,5	5,5	5,7	5,9	5,8	5,7	5,5	5,4
		3,5	*4,1*	*4,3*	*4,2*	*4,0*	*3,9*	*4,1*	*4,1*	*4,3*	*4,4*	*4,3*	*4,3*	*4,1*	*4,0*
Rentals..........	16,18	5,0	5,0	5,3	5,2	4,9	5,0	5,2	5,2	5,3	5,4	5,3	5,3	5,3	5,1
		0,8	*0,8*	*0,9*	*0,8*	*0,8*	*0,8*	*0,8*	*0,8*	*0,9*	*0,9*	*0,9*	*0,9*	*0,9*	*0,8*
Insurance	9,92	6,8	8,2	7,5	8,5	8,2	8,0	7,6	7,6	7,3	7,5	8,1	8,6	8,7	8,7
		0,7	*0,8*	*0,7*	*0,8*	*0,8*	*0,8*	*0,8*	*0,8*	*0,7*	*0,7*	*0,8*	*0,8*	*0,9*	*0,9*
Education	2,95	8,8	9,2	5,4	7,2	9,3	9,3	7,6	4,6	4,6	4,7	5,7	7,7	7,7	7,7
		0,3	*0,3*	*0,2*	*0,2*	*0,3*	*0,3*	*0,2*	*0,1*	*0,1*	*0,1*	*0,2*	*0,2*	*0,2*	*0,2*
Vehicles.........	5,98	1,7	4,5	7,6	5,3	4,0	4,0	5,1	7,5	9,0	8,8	7,5	5,6	4,2	3,9
		0,1	*0,3*	*0,5*	*0,3*	*0,2*	*0,2*	*0,3*	*0,4*	*0,5*	*0,5*	*0,5*	*0,3*	*0,3*	*0,2*
Petrol................	5,68	14,0	-10,7	1,0	7,0	-6,6	-5,3	11,2	-1,6	-4,6	0,8	6,2	4,0	7,9	10,2
		0,8	*-0,6*	*0,1*	*0,4*	*-0,4*	*-0,3*	*0,7*	*-0,1*	*-0,3*	*0,0*	*0,4*	*0,2*	*0,4*	*0,6*
Electricity..........	4,18	11,9	9,2	9,2	7,7	11,2	11,1	11,2	11,3	7,4	7,4	7,4	7,4	7,9	8,0
		0,5	*0,4*	*0,4*	*0,3*	*0,5*	*0,5*	*0,5*	*0,5*	*0,3*	*0,3*	*0,3*	*0,3*	*0,3*	*0,3*

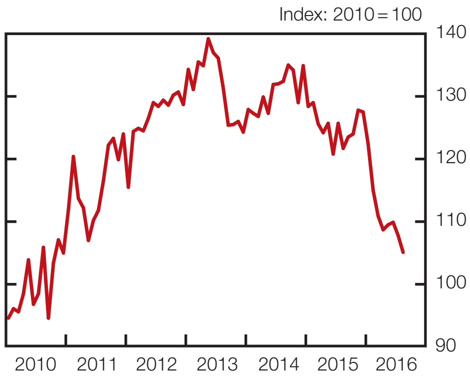
* CPI excluding food, non-alcoholic beverages, petrol and energy

Sources: Statistics South Africa, South African Reserve Bank and own calculations

Vehicle prices at producer and consumer level

Sources: Statistics South Africa and South African Reserve Bank

Total new vehicle sales



Source: Statistics South Africa

The rise in core inflation reflects accelerating inflation in core goods (which is all goods in the CPI less food, non-alcoholic beverages, petrol and energy). Core would not have reached its current high levels, however, without substantial contribution from service price inflation. This category – which fills about two-thirds of the core basket – has seen quite stable inflation in recent years, but it has been stable at elevated levels. Since the start of 2011, for instance, services inflation has averaged 5,8 per cent, and it has been higher than the goods component of core in every month since December 2008.

Within the services category, a number of sub-categories stand out for having had unusually high inflation for an extended period of time. In particular, health care and education costs have raced ahead of headline inflation: whereas the CPI has risen about 50 per cent from the start of 2009, health care is up 60 per cent and education has climbed almost 90 per cent. Relatedly, the miscellaneous category has also outpaced CPI, pushed up by its medical insurance component, which has risen more than 70 per cent since 2009.

The category for restaurants and hotels has also been buoyant, with a recent spike in the index likely explained by higher food costs. By contrast, the education component has moderated following the decision not to increase tertiary education fees for 2016. The forecast assumes that education inflation as a whole will be under 8 per cent in 2017, with tertiary education at 6 per cent, down from an average of over 9 per cent between 2011 and 2015.

Inflation in the core goods category has trended upwards through most of the post-Crisis period. The clear exception is 2015, in which core goods decelerated from 5,4 per cent to 4,2 per cent, chiefly due to pass-through effects from much lower petrol prices. In 2016 it has accelerated again, and is presently slightly above 5 per cent. An important contributor to this category is vehicles inflation, which is expected to peak at 8,8 per cent in the third quarter of 2016, before declining quite sharply on base effects towards the end of 2017, dropping to under 4 per cent. With a weight of nearly 6 per cent in the headline basket, this category will at its peak contribute 0,5 percentage points to headline inflation. Vehicles inflation is also interesting because it provides one of the clearest indicators in the CPI of exchange rate passthrough from rand depreciation. In this case, weak demand has not prevented a sharp rise in prices: new vehicles sales have been on a declining trend over the past few years, and have contracted especially sharply this year: in August 2016, their year-on-year growth rate was -9,5 per cent.

Box 3 Core inflation forecast accuracy

The South African Reserve Bank (the Bank) targets headline inflation.[1] Nonetheless, policymakers pay close attention to core inflation, which is headline inflation stripped of certain large, volatile components. This measure of underlying inflation is an important guide to future inflation. Indeed, several studies have shown that core tends to be a more reliable predictor of headline inflation than headline inflation itself.[2]

The Bank has been forecasting core inflation in its current form (targeted inflation excluding food, non-alcoholic beverages, petrol and energy) since the September 2011. To evaluate the accuracy of these forecasts, we compare them with actual outcomes. We also contrast the accuracy of the core forecasts with the headline inflation forecasts, and test both for bias.[3]

On average, the forecast errors for both headline and core inflation are slightly positive. However, the scale of these errors is quite small. The simple average also obscures a divergence between the near-term and longer-term forecasts. The forecasts have over-reported headline inflation up to five quarters ahead, and core inflation up to four quarters ahead. For the remaining quarters, however, the forecasts have been biased downwards, and the scale of bias has been more marked for core inflation than for headline inflation.

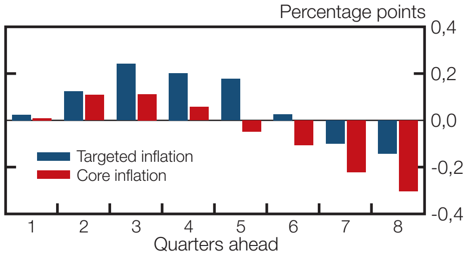
The root mean square error (RMSE) reveals that the Bank's core inflation forecast has been more accurate than its targeted inflation forecast for all but the first of the eight forecast quarters. RMSE measures of core inflation are lower than the corresponding measure of targeted inflation at 0,3 percentage points compared to 0,7 percentage points four-quarters-ahead and 0,6 percentage points versus 0,8 percentage points eight-quarters-ahead. This may be because core excludes the volatile components of the consumer price index and is therefore relatively easier to forecast.

1 For a recent evaluation of the accuracy of the Bank's headline inflation and GDP growth forecasts, see Box 3 in the April 2016 *MPR* (pp. 16–17).

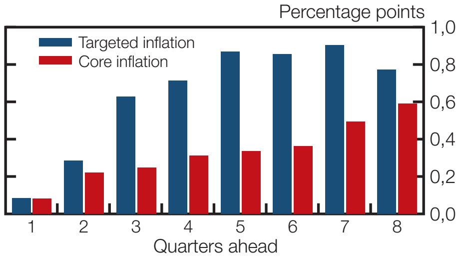
2 See for instance 'Measuring core inflation' by Michael Bryan and Stephen Cecchetti published 1994, *Monetary Policy*, Chicago: University of Chicago Press, pp. 195–215 and 'Evaluating measures of core inflation' by Thérèse Laflèche and Jamie Armour published in 2006 (http://www.bankofcanada.ca/wp-content/uploads/2010/06/ lafleche.pdf).

3 The average forecast error (AFE) and the root mean square error (RMSE) techniques are applied to evaluate the forecasts. The AFE measures projection bias in terms of systematic over- or underestimation and the RMSE is a measure of the standard deviation or magnitude of the errors.

Average forecast error



Root mean square error



Sources: Reuters consensus and own calculations

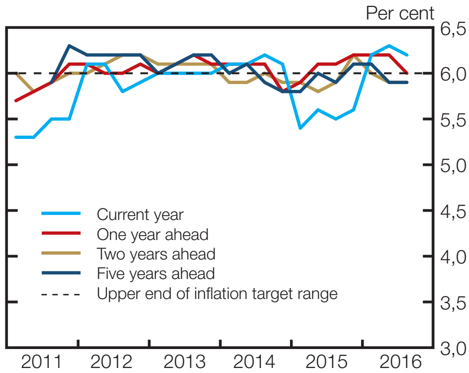
Inflation expectations

In a flexible inflation targeting framework, inflation is permitted to depart from the target range in the event of temporary shocks. Inflation expectations are crucial for gauging whether such shocks will indeed be temporary. There are various expectations measures available to the Bank. Perhaps the one most often consulted is the BER's survey of union leaders, business people and financial analysts, which has recently shown longer-term inflation expectations at 5,9 per cent, within the target range but still very close to the upper bound. The expectations of business people, which are usually interpreted as a better guide to price-setting behaviour, remain either at or just above the upper target level.

Reuters' survey of analysts has many of the same contributors as the BER analyst measure. The results from both surveys are therefore broadly comparable. For 2016 and 2017, the latest Reuters survey shows 6,4 per cent and 5,8 per cent respectively, compared to the BER analysts' survey results of 6,2 per cent and 6,0 per cent.

Market-based measures of inflation expectations, in the form of break-even inflation rates, have improved recently compared to the levels reached in December 2015 and early January 2016. They are currently between 6 and 7 per cent. Breakeven rates are not strictly comparable to inflation surveys. Usefully, unlike surveys, markets are not required to give only point

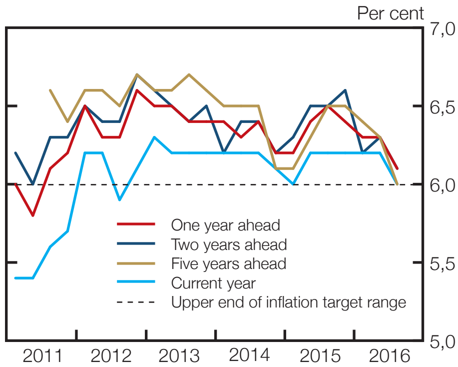
Survey-based inflation expectations*



* Total, combining the expectations of labour, business and analysts

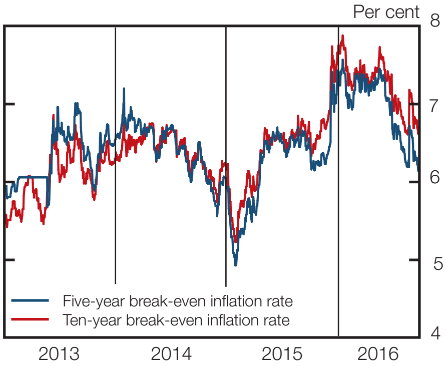
Source: Bureau for Economic Research

Survey-based inflation expectations of business



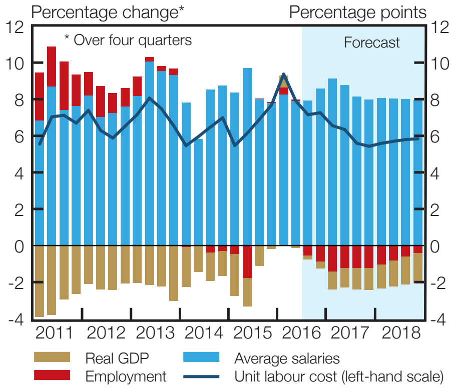
Source: Bureau for Economic Research

Break-even inflation rates



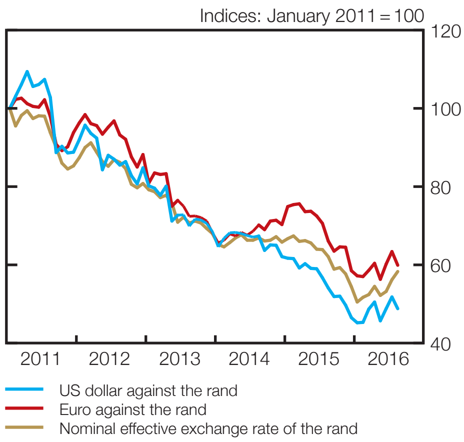
Source: Bloomberg

Unit labour cost and its components



Source: South African Reserve Bank

South African exchange rate measures



Sources: Bloomberg and South African Reserve Bank

estimates for inflation. Instead, they also price in risks of inflation surprises. As a result, break-evens incorporate an inflation risk premium, which helps explain the large upward shift in these measures early in 2016.

These different measures support two broad conclusions. First, it appears that the large shocks which have hit the economy recently, particularly the drought and strong rand depreciation, have not de-anchored inflation expectations so far. Break-evens moved abruptly in late 2015 and early 2016, but have since shifted lower again. The survey-based measures have been more stable. Fluctuations by 0,1 or 0,2 percentage points between surveys are quite normal and disclose little information; there is scarce evidence of a larger shift in the data. Second, however, these different measures also point to expectations very close to, or above, the upper end of the 3-6 per cent target range. None of them put inflation near the midpoint of the target range, even over longer time horizons. With inflation expectations already so elevated, there is very little room for error. Given that inflation is still expected to be above the target range until the second quarter of 2017, this implies some ongoing risk of expectations adapting to higher inflation outcomes and drifting away from the target range.

Employment, remuneration and unit labour costs

Wage pressures on CPI inflation generally emanate from two elements: productivity (how efficiently a good or service is produced) and salaries (what is paid for the labour used in production). Together, these elements make up ULC. Since the first quarter of 2011 the mean growth rate of wages and salaries in South Africa has been sticky at 8,0 per cent. Subtracting average labour productivity growth of 1,2 per cent (mean real GDP growth of 2,0 per cent and employment growth of 0,8 per cent) gives an average ULC growth rate of 6,8 per cent for the post-Crisis period, which is substantially above actual inflation outcomes as well as the inflation target range. Indeed, since 2009 ULCs have grown by around 70 per cent in total, compared to 50 per cent for headline inflation.

The latest forecasts for ULC growth show a spike in 2016 followed by more normal growth in 2017 and 2018. The higher 2016 number is primarily a consequence of weak output growth alongside persistent gains in average real wages. The deceleration in ULC growth thereafter follows from better GDP outcomes and some labour shedding, which blunts the inflationary consequences of continued real wage growth. Of course, there are risks to this outlook. GDP growth might not improve in 2017 and 2018, which could sustain ULC growth at high 2016 levels. Furthermore, wage and employment dynamics may surprise – preferably in the direction of wage moderation preventing job losses.

Exchange rates

Both emerging market and commodity currencies have strengthened since the beginning of the year. Emerging markets are benefitting from a search for yield given diverging policy rates compared with advanced economies, and a commodity price rebound. However, despite the improvement in the rand this year, it remains undervalued by most measures. As of June 2016, the most recent month for which data are available, the real effective exchange rate (REER) was still 17 per cent below the 20-year average of the Bank's REER index, which takes account of producer price index (PPI) differentials. It was 24 per cent below the BIS's REER measure, which is based on CPI differentials (and 25 per cent for August 2016). Compared to the 61 other countries for which the BIS has data, only Argentina and Mexico were at that point further from their long-term average REERs.

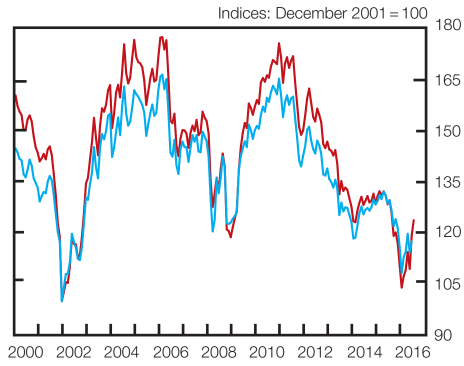
A more sophisticated measure, one that aims to determine the 'fair' value of the rand based on key macroeconomic fundamentals, yields more moderate results.[15] The model suggests that the REER was 18 per cent undervalued in the first quarter of 2016, but is now only around 5 per cent undervalued given the rand's recent appreciation. In nominal, bilateral terms, this puts the fair price of a US dollar at roughly R13,30. The undervaluation would have been larger had the equilibrium exchange rate not declined since the Great Financial Crisis, a fall caused by lower productivity levels relative to other economies and weaker commodity prices, among other factors.

Actual market exchange rates can diverge from 'fair' values for extended periods of time, however, and this model is not used in the MPC forecasts. Rather, the Bank relies on a constant real effective exchange rate assumption. Estimates of 'fair' value are mainly useful for contextualising this assumption. Over the long term, the distance from 'fair' value suggests some scope for currency appreciation. In the short and medium run, however, there are risks the currency could resume its depreciation trend.

Conclusion

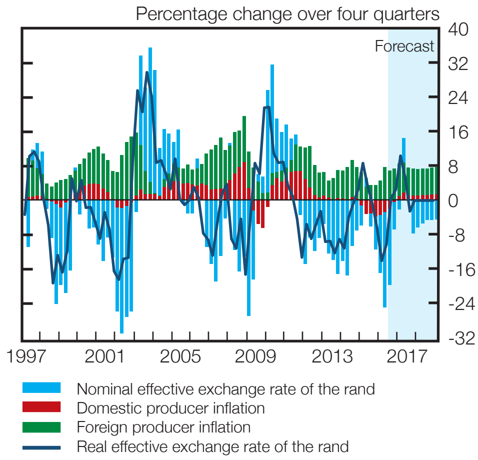
In the post-Crisis period, South African inflation has repeatedly breached the upper end of the 3-6 per cent target range. These breaches have been temporary, lasting just a few months at a time. By contrast, in the latest episode inflation is anticipated to be above target for all but two months of 2016, and is expected to dip back into the target range only in the second quarter of 2017. The drivers of this target breach are clear. Severe drought has boosted food prices. The exchange rate of the rand has weakened over an extended period of time and is now unusually depreciated, raising the costs of tradeable goods. Meanwhile, wage and price rigidities have stopped inflation from declining in line with lower economic growth. Despite the target breach, inflation expectations have remained broadly in line with the upper end of the inflation target range. This stability of expectations is reassuring. Nevertheless, inflation expectations remain uncomfortably close to the top of the target range and core inflation is at a seven-year high. This poses risks that future price shocks might cause more prolonged deviations from the inflation target range.

Real effective exchange rate of the rand



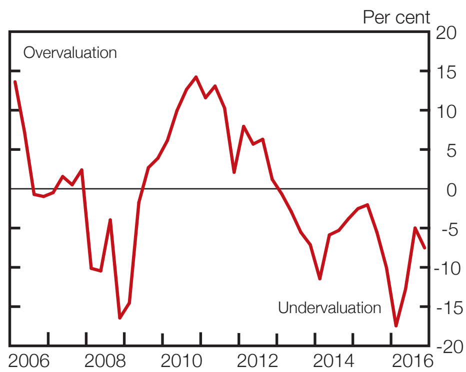
Sources: Bank for International Settlements and South African Reserve Bank

Real effective exchange rate and its components



Sources: Statistics South Africa and South African Reserve Bank

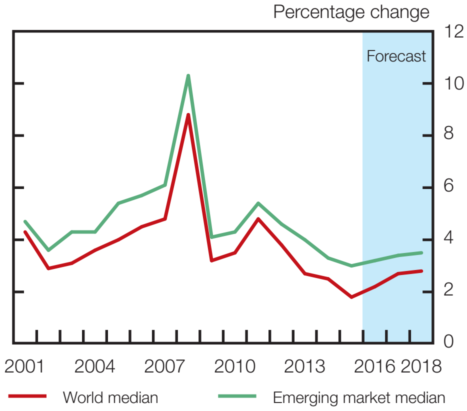
Real effective exchange rate gap



Source: South African Reserve Bank

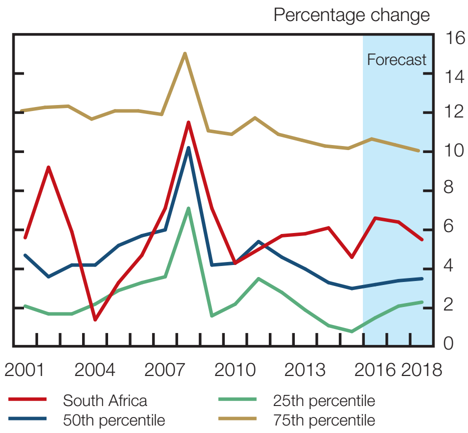
15 See *South African Reserve Bank Working Paper WP/12/02* by Shaun de Jager titled 'Modelling South Africa's equilibrium real effective exchange rate: AVECM approach', April 2012.

World and emerging market median inflation



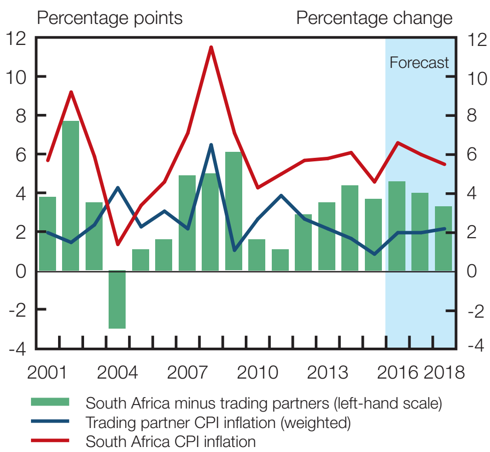
Sources: International Monetary Fund and own calculations

Emerging market inflation comparison



Sources: International Monetary Fund and own calculations

Trading partner inflation comparison



Sources: International Monetary Fund and own calculations

Box 4 South African inflation: an international perspective[1]

South Africa formally introduced inflation targeting in February 2000, with a target range of 3–6 per cent. That target range broadly reflected inflation rates abroad, with the 3 per cent lower-bound roughly matching advanced economy inflation and the 6 per cent upper-bound covering emerging markets. Aiming for inflation rates similar to those of other countries is an important consideration in inflation target design, since large inflation differentials can – over time – affect competitiveness. This box compares South Africa's consumer price index (CPI) inflation outcomes with those of other countries, and finds that South African inflation generally exceeds that of its trading partners, export rivals and emerging market peers. The differential has also been growing over time, as world inflation has fallen to long-time lows even as South African inflation has persisted around the top of the inflation target range.

Average inflation rates, 2001–2015

(Per cent)

South Africa	5,8
World median	3,9
Emerging market median	4,9
Trading partners	2,6
Export rivals	3,0

While South Africa's inflation rate averaged 5,8 per cent between 2001 and 2015, the median global inflation rate was 3,9 per cent and the emerging market median was 4,9 per cent. Among its emerging market peers, South Africa managed to be within the quartile with the lowest inflation (i.e. at or below the 25th percentile) in only one year (2004). In 2011, it ranked in the second quartile and subsequently slipped into the third quartile. Over the last three years South Africa's inflation performance has never been below the 60th percentile, and forecasts for 2016 and 2017 pin South Africa at around the 75th percentile.

An alternative method, which underpins real effective exchange rate (REER) indices, uses the inflation rates of South Africa's trading partners. Between 2001 and 2015, South Africa's inflation was on average 3,2 percentage points higher than the weighted inflation rate of its 20 largest trading partners. Furthermore, the inflation differential between South Africa and this group of countries has expanded in recent years, from 1,1 percentage points in 2011 to 4,4 percentage points in 2014. Although this differential narrowed somewhat to 3,7 percentage points in 2015 – a good year for South African inflation – this differential is forecast to widen to 4,6 percentage points in 2016.

Trade-weighted inflation rates, however, also have their disadvantages. To assess competitiveness, the more crucial comparison is with rival producer economies, not target markets. The United States, for example, is an important trading-partner of South Africa and its inflation rate features prominently in the trade-weighted index. The goods Americans buy from South Africa, they could however also source elsewhere. To succeed in the US market, South African prices need to be competitive with those of rival suppliers.

An estimate of export rival inflation can be obtained using the inflation rates of the countries competing in South Africa's major export sectors. Considering the five major countries in each of the nine biggest sectors, South Africa's inflation rate was 2,8 percentage points higher than the average of its export rivals between 2001 and 2015. Moreover, this differential has risen to an average of 3,1 percentage points since 2012, peaking at 3,5 percentage points in 2014. This exercise also indicates that South African inflation is higher than the average inflation rates of the countries competing in 90 per cent of our export markets.

Over the past 15 years, South Africa has experienced comparatively high inflation relative to its peers. This is true irrespective of whether domestic inflation is compared to the emerging market median, the trading partner average, or the export rival average. Moreover, these differentials have widened in recent years. This has several implications. One is that South Africans are having to cope with higher inflation than people in peer countries. This also means that they are experiencing higher nominal interest rates, and possibly also higher real interest rates as a consequence of increased inflation risk. Higher inflation levels are associated with greater exchange rate volatility. Finally, there is a competitiveness problem, which lowers potential growth. The depreciated exchange rate of the rand is, for the moment, keeping South African goods and services attractively priced in international marketplaces. However, with inflation rates permanently higher than most other countries, these price advantages will fade quite quickly if the exchange rate continues to appreciate.

1 This box is based on an internal South African Reserve Bank research project led by Theo Janse van Rensburg.

Summary

South Africa's slowdown has both cyclical and structural elements. The economy has clearly been on a declining growth trend, and estimates of potential growth are now roughly half their longer run averages. Yet in 2015, and more so in 2016, actual growth has slipped to below even these new, lower estimates of potential growth.

In a cyclical downturn, an excess of saving is problematic as it deprives the economy of scarce demand. In a structural slowdown, however, persistent dissaving is dangerous. One risk is a debt trap, in which debt service costs consume a rising share of income and ultimately cannot be funded except by further borrowing. Another, which is particularly acute if rising debt levels are financed from abroad, is a 'sudden stop' as foreign investors lose confidence and cut off funds. Achieving the right diagnosis is crucial for policymakers. Excessively tight policy can amplify a cyclical downturn, but overly loose policy during a structural slowdown can put an economy in an unsustainable position.

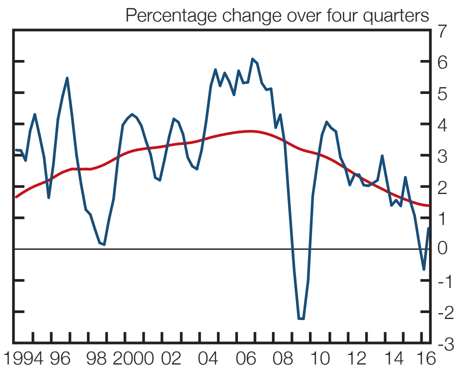
Room for policy error in South Africa has narrowed. When the Crisis hit in 2008, government had ample fiscal space from which to run large fiscal deficits, borrowing both local and foreign savings to support domestic demand. By 2016 much of this space had been exhausted, with South Africa's debt-to-GDP ratio roughly doubled and debt service costs the fastest growing part of the budget. As such, the risks to persisting with aggressive fiscal stimulus have become much larger, and National Treasury has responded appropriately with a fiscal consolidation programme.

Similarly, monetary policy is faced with diminished space for stimulus. Inflation dynamics have deteriorated. Whereas in the years immediately after the Crisis breaches of the inflation target range were brief and core inflation was near the middle of the range, more recent episodes have been protracted and core is very close to the top of the target range. High headline inflation is partly a consequence of drought and therefore higher food prices. It is underpinned by structural rigidities in product and labour markets which sustain inflation even when demand is weak. Yet it also reflects exchange rate depreciation related to investor concerns that South Africa is borrowing too much from abroad, especially for an economy with weak growth prospects.

The combination of cyclical and structural weakness requires a policy mix that blends support for growth with longer-term guarantees of sustainability. Structural reforms are crucial, but these are outside the ambit of monetary policy. Instead, the monetary policy contribution has taken the form of a gradual increase in interest rates, supplemented by a communications strategy to guide expectations to well within the 3–6 per cent inflation target range.

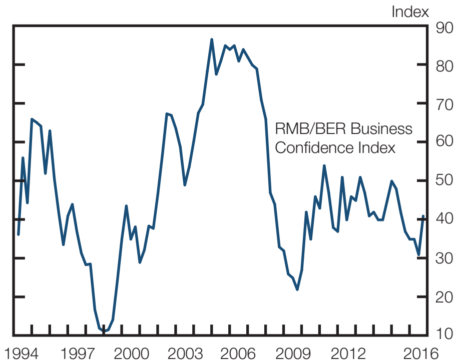
Monetary policy has so far avoided rapid increases in interest rates, and low real rates are providing ongoing support to the economy. Inflation expectations have also held fairly steady despite the ongoing inflation target breach. This is protecting longer-term growth prospects, by preventing borrowing costs from rising on risks of higher inflation. But there is only so much monetary policy can do. Inflation is high, unemployment is rising and growth is extremely low. Achieving better outcomes will require a broader reform agenda, including measures to bolster confidence, restore productivity and investment growth, and improve the functioning of labour and product markets.

Real GDP and potential output



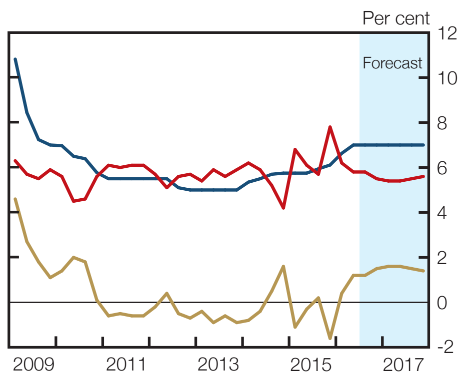
Sources: Statistics South Africa and South African Reserve Bank

Business confidence



Source: Bureau for Economic Research

South Africa's nominal and real repurchase rate



Sources: South African Reserve Bank and Reuters

Statement of the Monetary Policy Committee

19 May 2016

Issued by Lesetja Kganyago, Governor of the South African Reserve Bank, at a meeting of the Monetary Policy Committee in Pretoria

South Africa's inflation and growth dynamics continue to highlight the policy dilemma facing monetary policy. Although headline consumer price index (CPI) inflation has moderated since February, the respite is expected to be temporary as food and petrol price pressures continue to intensify. The recovery in the rand exchange rate in April also proved to be short-lived, as both domestic and external factors weighed on the currency. At the same time, domestic economic growth continues to disappoint. While there are signs that the economy may be reaching the low point in the growth cycle, the recovery is expected to be slow with downside risks. Global economic growth and financial market conditions have stabilised somewhat since the previous Monetary Policy Committee (MPC) meeting, but a high degree of risk and uncertainty persists.

The year-on-year inflation rate as measured by the CPI for all urban areas moderated after reaching a recent high of 7,0 per cent in February. In March and April 2016, CPI inflation measured 6,3 per cent and 6,2 per cent respectively. Food price pressures continued unabated, with food and non-alcoholic beverages inflation accelerating to 11,0 per cent in April, up from 9,5 per cent previously. Goods price inflation moderated from 6,9 per cent to 6,7 per cent, while services price inflation was unchanged at 5,7 per cent. The Bank's measure of core inflation, which excludes food, fuel and electricity measured 5,5 per cent, up from 5,4 per cent in March. While the impact of the weaker exchange rate remains relatively low, there are indications of increased pass-through in some categories, particularly new motor vehicles and appliances.

Producer price inflation for final manufactured goods moderated significantly from 8,1 per cent in February to 7,1 per cent in March, mainly as a result of a sharp fall in fuel prices. Manufactured food product price inflation accelerated to 10,5 per cent, with the food, beverages and tobacco products category contributing 3,1 percentage points to the March outcome. Agricultural prices increased by 23,1 per cent in March, with cereal and other crop prices increasing by 50,0 per cent year on year.

The latest inflation forecast of the Bank shows a moderate near-term deterioration compared with the previous forecast, but there is some improvement in the medium-term outlook. The breach of the upper end of the target range, while still protracted, is now slightly shorter, with inflation expected to fall within the range during the third quarter of 2017. Inflation is now expected to average 6,7 per cent in 2016 compared with 6,6 per cent previously forecast. In 2017 and 2018 inflation is expected to average 6,2 per cent and 5,4 per cent respectively, marginally down from the previous forecast. The expected peak, at 7,3 per cent in the fourth quarter of 2016, is unchanged. The downward revisions are due in part to the higher interest rate assumption, a slightly less depreciated exchange rate assumption, a wider output gap and a lower electricity price assumption. These pressures are counteracted to some extent by a higher near-term food price forecast and the impact of upward revisions to the international oil price assumptions.

The forecast for core inflation is slightly improved, with a lower forecast for 2016 of 5,9 per cent from 6,2 per cent previously. Forecasts for 2017 and 2018 are unchanged at 5,7 per cent and 5,2 per cent respectively. Core inflation is expected to breach the upper end of the target range in the third quarter of 2016 for four consecutive quarters, with a peak of 6,2 per cent (previously 6,5 per cent) in the third and fourth quarters of 2016 and the first quarter of 2017.

The Bureau for Economic Research's (BER) survey of inflation expectations is only due for release in July 2016. The median expectations of economic analysts, as reflected in the Reuters Econometer survey conducted in May, are more or less unchanged compared with the previous survey, and are slightly higher than those of the Bank for 2016 and 2017. In the latest survey, the median expectations for 2016 and 2017 were 6,7 per cent and 6,4 per cent respectively, with inflation expected to be within the target range in 2018 at an average of 5,7 per cent. Bond market expectations implicit in the break-even inflation rates are more or less unchanged since the previous meeting and remain at fairly elevated levels.

Global growth remains hesitant following a disappointing first quarter in the United States (US) and the United Kingdom (UK) in particular. While labour market conditions in the US have improved, low corporate profits have constrained investment. However, consensus forecasts show that a moderate improvement is expected in the coming months, but at a lower rate than previously expected. The outlook for the UK is clouded by the possibility of an exit from the European Union (EU), while the prospects for the Japanese economy remain uncertain. By contrast, the growth outlook in the euro area is more promising, driven by improvements in Germany and France in particular, although there are concerns that the recent momentum may be fading.

Divergent prospects are evident in the emerging markets. Russia and Brazil remain in recession, but there are signs of some stabilisation in China as the economy appears to be responding to government policy initiatives. This improvement, along with a weaker US dollar, has resulted in some recovery in commodity prices as well as a pickup in portfolio flows to emerging markets. Of some concern is the persistent deterioration in growth forecasts for sub-Saharan Africa, which includes some of South Africa's important trading partners. The region is now expected to underperform the global economy in 2016, for the first time in 16 years, as the effects of lower commodity prices and drought take their toll.

Global inflation pressures remain benign, with low energy prices still having an impact, although this effect is likely to dissipate with the recent upward trend in oil prices. The latest data show declining prices in the euro area and Japan, and low inflation in the US and the UK. Inflation has remained relatively higher in a number of Latin American economies, particularly those experiencing currency depreciation. As a result of these trends, asynchronous monetary policies persist. While policies are generally accommodative amid subdued growth, particularly in many advanced economies, a number of emerging markets have maintained a tightening bias in response to inflation pressures. The US Federal Reserve (Fed) is expected to continue with its slow pace of policy rate normalisation but there is a high degree of uncertainty regarding the timing of the next increase.

The rand exchange rate has remained volatile, and following a few weeks of relative strength has resumed a weakening path, and continues to pose an upside risk to the inflation outlook. Since the previous meeting of the MPC, the rand has traded in a range of between R14,20 and R15,90 against the US dollar, and has depreciated by 1,5 per cent against the dollar, by 0,9 per cent against the euro, and by 1,2 per cent on a trade-weighted basis.

During this period the rand was initially favourably impacted by improved commodity prices, the narrower trade balance, and expectations of a slower pace of US Fed monetary policy tightening. However, these gains were reversed as global growth concerns resurfaced in early May and other domestic factors, including the low growth outlook, concerns about a possible ratings downgrade and, more recently, heightened political uncertainty impacted adversely on the currency.

Although the capital flow environment for emerging markets has improved recently, this has not applied to equity flows. South Africa's experience has mirrored this, but with stronger equity outflows. According to the JSE Limited, since the beginning of the year, net sales of domestic equities by non-residents have amounted to R56 billion. By contrast, non-residents have been net purchasers of domestic government bonds (year-to-date R23 billion), although the past two weeks have seen net sales.

The domestic economic growth outlook remains weak, with the Bank's gross domestic product (GDP) growth forecast for 2016 revised down from 0,8 per cent to 0,6 per cent.

While a recovery is still expected in the next two years, the forecasts for both these years have been revised down by a 0,1 percentage point to 1,3 per cent and 1,7 per cent in 2017 and 2018 respectively. With the estimates of potential output unchanged, the output gap is expected to widen over the forecast period. The Bank's leading indicator of economic activity continued its downward trajectory in February, consistent with the constrained outlook.

Recent high-frequency data paint a particularly bleak picture of the first quarter of this year, following a sharp contraction in mining output, minimal growth in the manufacturing sector, and declines in electricity production and consumption. While the Bank's forecast for GDP growth in the quarter is barely positive, it does represent the low point of the forecast, and a slow upward trend is expected going forward. This view is consistent with the favourable developments in the Barclays Purchasing Managers' Index (PMI) which has recovered fairly strongly to above the neutral 50-point level for the past two months. The real value of building plans passed, particularly non-residential, increased markedly on a 3-month-to-3-month basis, indicative perhaps of some life in the construction sector, despite very low levels of business confidence in the sector.

However, while the recent modest recovery in commodity prices may impact positively on mining output, prices remain low and the sector remains beset by higher input costs and regulatory uncertainty. The continuing drought is also expected to put further strain on the agricultural sector.

The economic slowdown is also reflected in labour market trends, with the unemployment rate rising to 26,7 per cent in the first quarter of 2016, from 26,4 per cent a year earlier. Although employment growth was positive over the year to the first quarter, the year-on-year growth rate moderated significantly, with employment losses recorded in a number of sectors, including manufacturing, agriculture and transport.

Household consumption expenditure also remains subdued, with low growth in retail sales in the first quarter. While there was a welcome increase in exports, new vehicle sales also continue to decline. The First National Bank/Bureau for Economic Research (FNB/BER) Consumer Confidence Index recovered to some extent in the first quarter of the year, although it still remains at depressed levels, and indicates a low willingness to spend and utilise credit among consumers.

The constrained outlook for household consumption expenditure is indicative of the absence of demand pressures in the economy. This is also confirmed in the weak wealth effects and the continued slow pace of credit extension to households. Although some improvement has been seen in this regard, growth remains negative in real terms and is mainly related to mortgage advances and general loans, particularly unsecured lending. Growth in credit extension to corporates remains strong, but moderated in March.

Wage growth appears to be moderating, with growth in nominal remuneration per worker in the formal non-agricultural sector declining to below 6 per cent in the fourth quarter of 2015, mainly due to lower private-sector remuneration growth. Once adjusted for labour productivity, growth in unit labour costs remained unchanged at 5,0 per cent in that quarter.

Food prices remain a significant risk to the inflation outlook in the face of persistent drought and exchange rate weakness. These pressures are evident in both the consumer price and producer price indices. Although for some time the MPC had been expecting an acceleration in food price inflation, the recent increases have surprised on the upside, and more aggressive food price increases are now forecast for the near term. The Bank now expects food price inflation to peak at around 12 per cent in the final quarter of this year. However, should food prices stabilise or decline later in the year, there is the potential for downside base effects next year. Futures prices suggest that both maize and wheat prices are expected to remain elevated for the rest of the year, reinforced by a sizeable increase in the domestic wheat import tariff.

The international oil price assumptions in the forecasting model have been increased, with the price of Brent crude oil remaining firmly above the US$40 per barrel level since the second week of April. Demand has surprised on the upside and, despite an increase in supply from Iran, output has declined in a number of countries. This upward price trend may, however, be contained by high levels of inventories. Domestic petrol prices have increased by a cumulative R1,00 per litre since March, mainly due to higher international prices and an increase in the fuel levy. Should current exchange rate and international oil price trends persist, a further significant increase can be expected in June.

The MPC faced the continuing dilemma of upside risks to the inflation forecast and a worsening growth outlook. The risks to the growth outlook are assessed to be on the downside, particularly in the short term, despite the downward revision to the forecast. Both the mining and agricultural sectors are expected to weigh heavily on the first quarter growth outcome, and the outlook is therefore dependent in part on whether these sectors rebound in the coming quarters.

The Committee remains concerned about the inflation outlook and the extended breach of the target. Although the inflation forecast has shown a moderate improvement over the medium term, the risks are still assessed to be on the upside. The exchange rate remains highly sensitive to domestic political developments and risks of an earlier-than-expected tightening in US monetary policy. The exchange rate implicit in the forecast is stronger than the current level, imparting a significant degree of upside risk. While pass-through from the exchange rate to inflation remains relatively subdued, there are indications that this may be increasing. There is also some upside risk to the international oil price assumption.

The Committee remains concerned that inflation expectations remain at uncomfortably high levels. Although core inflation has remained relatively contained in recent months, with a lower peak now expected, it is forecast to accelerate and exceed the upper end of the inflation target range for four quarters in response to exchange rate and wage pressures.

Some countervailing risks are also evident. While there is a risk that food prices may accelerate faster in the near term, the longer-term forecast assumes that food prices will stabilise by year end, allowing for favourable base effects next year. However, should food prices, particularly grains, decline in response to a normalisation of weather patterns, a much sharper downward food inflation trajectory could transpire. The absence of demand pressures and risks to consumption expenditure growth may also contribute to downside risks.

The increase in the repurchase rate at the previous MPC meeting contributed to the improvement in the longer-term inflation forecast, and that move should be seen in conjunction with previous actions in the cycle and the lagged effects of monetary policy. The MPC felt that there is some room to pause in this tightening cycle and accordingly decided to keep the repurchase rate unchanged for now at 7,0 per cent per annum. Five members preferred no change, while one member preferred a 25 basis point increase.

The MPC remains focused on its inflation mandate, but sensitive to the extent possible to the state of the economy. The MPC will not hesitate to act appropriately should the inflation dynamics require a response, within a flexible inflation-targeting framework. Future moves, as before, will continue to be highly data-dependent.

Summary of assumptions: Monetary Policy Committee meeting on 19 May 2016*

1. Foreign-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real GDP growth in South Africa's major trading-partner countries...	2,9%	3,1%	2,8%	2,7%	3,1%	3,4%
				(2,8%)	(3,2%)	(3,5%)
2. International commodity prices in US$ (excluding oil).........................	-6,4%	-9,8%	-19,3%	-9,0%	1,0%	1,5%
				(-13,2%)	(2,0%)	(3,0%)
3. Brent crude (US$/barrel)	108,8	99,2	52,5	42,0	52,0	57,5
				(37,0)	(45,0)	(50,5)
4. World food prices (US$)	-1,6%	-3,8%	-18,7%	-7,4%	2,0%	3,0%
				(-3,0%)	(2,0%)	(3,0%)
5. International wholesale prices...	0,3%	-0,1%	-3,5%	-1,2%	0,9%	1,1%
				(-1,5%)	(0,8%)	(1,0%)
6. Real effective exchange rate of the rand (index 2010 = 100)	81,91	79,17	80,08	74,00	75,00	75,00
				(71,27)	(71,27)	(71,27)
7. Real effective exchange rate of the rand...	-10,1%	-3,3%	1,1%	-7,6%	1,4%	0,0%
				(-11,0%)	(0,0%)	(0,0%)

2. Domestic-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real government consumption expenditure	3,3%	1,9%	0,3%	1,5%	1,0%	1,0%
				(1,5%)	(1,0%)	(1,0%)
2. Administered prices...	8,7%	6,7%	1,7%	6,1%	8,5%	8,1%
				(5,3%)	(8,4%)	(8,7%)
– Petrol price	11,8%	7,2%	-10,7%	3,8%	11,5%	8,7%
				(0,0%)	(10,2%)	(9,4%)
– Electricity price..	8,7%	7,2%	9,4%	9,6%	8,5%	9,0%
				(10,1%)	(9,5%)	(10,0%)
3. Potential growth...	2,1%	1,8%	1,6%	1,5%	1,6%	1,8%
				(1,5%)	(1,6%)	(1,8%)
4. Repurchase rate (per cent)..	5,00	5,57	5,89	6,91	7,00	7,00
				(6,71)	(6,75)	(6,75)

The figures in brackets represent the previous assumptions of the Monetary Policy Committee.
* For an explanation of foreign-sector assumptions and domestic-sector assumptions, see pages 45 and 46.

Selected forecast results: Monetary Policy Committee meeting on 19 May 2016

Selected forecast results (quarterly)

Year-on-year percentage change	Actual					Forecast														
	1	2	3	4	2015	1	2	3	4	2016	1	2	3	4	2017	1	2	3	4	2018
1. Headline inflation............................	4,2	4,6	4,7	4,9	4,6	6,5	6,4	6,8	7,3	6,7	7,0	6,4	5,8	5,5	6,2	5,4	5,4	5,4	5,5	5,4
						(6,4)	(6,0)	(6,6)	(7,3)	(6,6)	(7,1)	(6,9)	(6,1)	(5,5)	(6,4)	(5,4)	(5,5)	(5,6)	(5,7)	(5,5)
2. Core inflation..................................	5,7	5,6	5,3	5,2	5,5	5,5	5,8	6,2	6,2	5,9	6,2	6,0	5,3	5,1	5,7	5,1	5,1	5,2	5,3	5,2
						(5,7)	(6,1)	(6,5)	(6,5)	(6,2)	(6,4)	(6,0)	(5,3)	(5,0)	(5,7)	(5,0)	(5,2)	(5,2)	(5,3)	(5,2)

The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Selected forecast results (annual)

Per cent	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real gross domestic product (GDP) growth	2,2%	1,5%	1,3%	0,6%	1,3%	1,7%
				(0,8%)	(1,4%)	(1,8%)
2. Current account as a ratio to nominal GDP.............................	-5,8	-5,4	-4,4	-4,6	-4,7	-4,9
				(-4,6)	(-4,7)	(-4,9)

The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Statement of the Monetary Policy Committee

21 July 2016

Issued by Lesetja Kganyago, Governor of the South African Reserve Bank, at a meeting of the Monetary Policy Committee in Pretoria

The United Kingdom (UK) vote to leave the European Union has dominated the global landscape in the past month. The outlook for the global economy has become more uncertain as the potential consequences of this development are being assessed. The lack of clarity regarding the process going forward has had significant implications for global growth and interest rates as the prospects for further near-term monetary policy tightening by the United States (US) Federal Reserve (Fed) recede. While there have been spillovers to the South African financial markets, particularly the exchange rate, the direct short-term impact on South African growth and trade is likely to be fairly limited. Domestic growth has surprised further on the downside, and the outlook remains constrained. At the same time, domestic inflation outcomes have surprised marginally on the downside, but an extended breach of the target is still expected.

The year-on-year inflation rate as measured by the consumer price index (CPI) for all urban areas moderated to 6,1 per cent in May, before rising to 6,3 per cent in June. Food price inflation measured 11,0 per cent in June, below the recent peak of 11,3 per cent in April, and was marginally negative on a month-on-month basis. Goods price inflation measured 6,7 per cent, up from 6,6 per cent in May, while services increased by 5,8 per cent, up from 5,7 per cent in May. The Bank's measure of core inflation, which excludes food, fuel and electricity, measured 5,6 per cent, up from 5,5 per cent previously.

Producer price inflation for final manufactured goods continued its downward trend, declining from 7,0 per cent in April to 6,5 per cent in May, mainly due to a further moderation in price inflation of food, beverages and tobacco products. This was below the consensus forecast of 6,9 per cent. The impact of the drought is still evident in the increase in prices of agricultural products, particularly cereals and other crops as well as live animals and animal products.

The latest inflation forecast of the Bank shows a marginal improvement compared to the previous forecast. Nevertheless, inflation is still expected to accelerate further this year and is only expected to return to within the target range of 3–6 per cent during the third quarter of 2017. Inflation is now expected to average 6,6 per cent in 2016 and 6,0 per cent in 2017, compared with 6,7 per cent and 6,2 per cent previously. In 2018 inflation is expected to average 5,5 per cent, marginally up from the previous forecast. The expected peak, at 7,1 per cent in the fourth quarter of 2016, is down from 7,3 per cent. The downward revisions are partly due to lower administered price inflation (mainly petrol), despite a small upward adjustment in the international oil price assumption.

The forecast for core inflation is lower than the previous forecast in the near term, mainly due to the lower starting point, but higher in the outer period. Core inflation is expected to moderate from an average of 5,8 per cent in 2016 to 5,3 per cent by 2018. Whereas previously core inflation was expected to breach the upper end of the target range in the third quarter of 2016 for four consecutive quarters, a one-quarter breach, at 6,1 per cent, is now expected in the fourth quarter of this year.

Inflation expectations as reflected in the survey conducted by the Bureau for Economic Research (BER) have remained relatively anchored at the upper end of the inflation target range. In the second quarter, average expectations for 2016 were 6,3 per cent, up from 6,2 per cent. Average expectations for 2017 were unchanged at 6,2 per cent and were marginally down to 5,9 per cent for 2018. Expectations of business people were more or less unchanged compared to the previous quarter. Both market analysts and trade union officials revised their near-term forecasts upward, while forecasts for 2018 were revised lower. Average five-year inflation expectations declined from 6,1 per cent to 5,9 per cent in the second quarter, with downward revisions by all groups.

The median expectations of market analysts, as reflected in the Reuters Econometer survey conducted in July, show a moderate decline since May. Inflation expectations declined from 6,7 per cent and 6,4 per cent in 2016 and 2017, to 6,6 per cent and 6,1 per cent respectively. The yield differential between inflation-linked bonds and conventional government bonds (break-even inflation expectations) declined across all maturities, but remain elevated.

The global economic outlook has been influenced by the outcome of the UK referendum. The financial markets displayed a high degree of volatility in the immediate aftermath of the outcome, but have since stabilised to some extent. Nevertheless, the longer-term real impacts are expected to be negative for global growth, particularly for the UK and Europe, as investment decisions are put on hold during the transition period. A high degree of uncertainty is expected to persist for some time as the magnitude of this slowdown is still unclear and dependent on the nature and speed of the UK disengagement. Since the referendum, global growth forecasts have generally been revised downwards.

The outlook for emerging markets has remained relatively subdued, with further downside risks in Turkey following the recent coup attempt and terrorist attacks. Recent outcomes in China indicate some improvement in the growth prospects in response to government stimulus packages, and this has underpinned a stabilisation and moderate upward trend in commodity prices. The International Monetary Fund (IMF) growth forecasts released earlier this week have revised sub-Saharan African growth downwards. The region has been negatively impacted by lower commodity prices and severe drought in some parts.

Inflation in the advanced economies remains low and still generally below target. The Brexit vote has also modified expectations regarding monetary policy in these economies. Although the Bank of England kept policy rates on hold at its most recent meeting, expectations are for a reduction in the policy rate in the near future, with the prospect of a resumption of quantitative easing. Markets are now expecting the US policy rate to remain unchanged for some time. Simultaneously, the highly accommodative monetary policy stances of the European Central Bank (ECB) and Bank of Japan are expected to persist, with the possibility of additional stimulus.

These developments have reinforced the global search for yield, as yield curves flattened across major advanced economy markets. The number of government bonds trading with negative yields increased further. This has provided additional impetus to renewed capital flows to emerging markets observed since earlier this year. While these flows are expected to persist, they remain sensitive to changes in expectations regarding US monetary policy and general global risk perceptions.

The recent volatility experienced by the rand exchange rate has been driven mainly by external factors and changes in global risk perceptions. Although the rand depreciated sharply in the immediate aftermath of the Brexit vote, it has reversed these losses, and more so against the British pound. Since the previous meeting of the Monetary Policy Committee (MPC), the rand has traded in a range of R15,80 and R14,22 against the US dollar, and has appreciated by 11,0 per cent against the US dollar, by 12,9 per cent against the euro and by 23,0 per cent against the British pound. On a trade-weighted basis, the rand has appreciated by 12,2 per cent.

The rand has been supported by the global search for yield. There was a sharp increase in non-resident inflows to the domestic bond and equity markets in June and July. Since the beginning of June, net purchases of R107,3 billion by non-residents have been recorded. The rand also responded positively to the improvement in commodity prices and the unexpectedly large trade surplus recorded in May, which followed a small surplus in April. Despite this recent strength, the rand remains vulnerable to possible 'risk-off' global scenarios; changes in US monetary policy expectations; and domestic concerns, including the possibility of ratings downgrades later in the year.

The domestic economic growth outlook remains extremely challenging, following the contraction in gross domestic product (GDP) in the first quarter of this year. Although this is anticipated to have been the low point of the cycle, the recovery is expected to be weak. The Bank's latest forecast is for zero per cent growth in 2016, compared with 0,6 per cent previously. Growth rates of 1,1 per cent and 1,5 per cent are forecast for the next two years, down from 1,3 per cent and 1,7 per cent previously. The Bank's estimate of potential output has been revised down marginally to 1,4 per cent in 2016, rising to 1,7 per cent in 2018. This growth outlook is corroborated by the persistent negative trend in the Bank's leading indicator of economic activity. Business confidence remains low with the Rand Merchant Bank (RMB)/BER business confidence indicator falling to its lowest level since 2009 in the second quarter of this year.

Recent economic data suggest that positive growth was recorded in the second quarter, with the mining and manufacturing sectors expected to add positively to growth. The more positive trend in manufacturing is consistent with the Barclays Purchasing Managers' Index (PMI) which has been above the neutral 50-point level since March. The BER manufacturing confidence index also improved, but still remains at low levels. The real value of building plans passed is indicative of some improvement in the sector, particularly with respect to residential construction. However, this is not reflected in the First National Bank (FNB)/ BER building confidence index which declined further in the second quarter.

Underlying the negative performance of the economy during the first quarter was the sharp contraction in growth in gross fixed capital formation for the second consecutive quarter by both the private sector and general government. These trends have contributed to the persistence of high rates of unemployment in the economy. Although formal non-agricultural employment increased in the first quarter of 2016, this was largely due to temporary employment opportunities created by the Independent Electoral Commission in preparation for the local government elections. By contrast, private-sector employment contracted during the first quarter.

Growth in consumption expenditure by households also contracted in the first quarter, with a sharp slowdown in expenditure on durable goods in particular. The FNB/BER consumer confidence index declined in the second quarter to low levels, following a moderate improvement in the previous quarter. The BER retail confidence index also declined sharply in the second quarter. While new vehicle sales remained weak, vehicle exports recorded strong growth in the second quarter.

Despite the surprise increase in retail and wholesale trade sales in May, consumption expenditure by households is expected to remain subdued given the low consumer confidence, high debt levels, rising costs of debt servicing and slow employment growth. Consumption expenditure has been further constrained by the absence of significant wealth effects owing to the weak performance of asset markets, particularly the housing market. Credit extension to households also remains weak, with negative real rates of growth. Average wage growth has remained relatively stable, but there are risks of increases in excess of inflation and productivity gains.

There are still no clear signs of a recovery in the agricultural sector, and food price inflation is expected to remain elevated for some time. The Bank expects food price inflation to peak at 12,6 per cent during the final quarter of this year. There are some encouraging signs of moderation in some food categories at both the producer and consumer price levels, and futures prices of grains have declined markedly. Should food prices stabilise or decline in the coming months, a potential exists for significant downside base effects next year. Exchange rate developments will also be critical in this respect as will global food prices which have reversed their recent negative trend.

Despite supply disruptions and curtailments by a number of producers, the price of Brent crude oil has mostly traded within a band of US$45 and US$50 since the previous meeting of the MPC. The Bank's model assumes a very moderate upward trend in oil prices over the forecast period, but there may be a degree of downside risk in the short term, with some upside risk in the outer period as global demand recovers. The domestic petrol price increased by a cumulative 60 cents per litre in the past two months due to both the exchange rate and international prices. However, the recent appreciation of the rand coupled with a lower average oil price has resulted in a substantial recovery in the petrol price, and a sizeable reduction in retail prices is expected in August.

The MPC remains concerned about the weak economic growth outlook and the medium-term inflation trajectory which will remain outside the target range of 3–6 per cent until the second half of next year. Nevertheless, there have been some improvements in the near-term inflation prospects following successive downside surprises. This is also the case for core inflation, where the expected breach of the upper end of the target range is now less protracted. While the risks to the inflation forecast are assessed to remain on the upside, these risks have moderated somewhat.

Global uncertainties appear to have delayed monetary policy tightening in advanced economies. The impact of the more appreciated rand exchange rate on the inflation outlook will depend to a large extent on whether the exchange rate is sustained at these stronger levels. Current exchange rate levels are stronger than those implicit in the forecast, providing some buffer to the projections. The rand remains sensitive to both domestic and external developments, and the recent trends can be quickly reversed.

The outlook is clouded by the uncertainty surrounding the longer-term market and global growth implications of Brexit. The implications for the rand and domestic growth, and ultimately inflation, could vary quite significantly depending on which scenario plays out.

A weaker global growth scenario could also imply that there may be a degree of downside risk to the international oil price assumption, which was adjusted upward. A combination of a stronger exchange rate and subdued international oil prices would have a favourable impact on domestic petrol prices in the coming months. However, the MPC assesses the longer-term risk to this assumption to be on the upside as global growth and oil demand are expected to recover.

Food prices remain an upside risk in the near term. However, there could be a sharp decline in agricultural prices next year, should favourable weather patterns transpire as forecast. The absence of demand pressures and weak consumption expenditure growth may also contribute to downside risks.

While the MPC remains concerned about the overall inflation trajectory, the assessment of the balance of risks to the inflation outlook and the weak domestic economy has provided some room to delay further tightening of the monetary policy stance for now. Accordingly, the MPC has unanimously decided to keep the repurchase rate unchanged at 7,0 per cent per annum.

The MPC is aware that some of the favourable factors that contributed to this decision could reverse quickly and it remains ready to react appropriately to any significant change in the inflation outlook.

Summary of assumptions: Monetary Policy Committee meeting on 21 July 2016*

1. Foreign-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real GDP growth in South Africa's major trading-partner countries	3,0%	3,1%	2,8%	2,7%	3,0%	3,3%
	(2,9%)				(3,1%)	(3,4%)
2. International commodity prices in US$ (excluding oil)	-6,4%	-9,8%	-19,3%	-8,5%	1,0%	1,5%
				(-9,0%)		
3. Brent crude (US$/barrel)	108,8	99,2	52,5	44,6	53,5	57,5
				(42,0)	(52,0)	
4. World food prices (US$)	-1,6%	-3,8%	-18,7%	-6,0%	2,0%	3,0%
				(-7,4%)		
5. International wholesale prices	0,3%	-0,1%	-3,5%	-1,3%	1,0%	1,2%
				(-1,2%)	(0,9%)	(1,1%)
6. Real effective exchange rate of the rand (index 2010 = 100)	81,91	79,17	80,08	74,01	75,00	75,00
				(74,00)		
7. Real effective exchange rate of the rand	-10,1%	-3,3%	1,1%	-7,6%	1,3%	0,0%
					(1,4%)	

2. Domestic-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real government consumption expenditure	3,8%	1,8%	0,2%	1,5%	1,0%	1,0%
	(3,3%)	(1,9%)	(0,3%)			
2. Administered prices	8,7%	6,7%	1,7%	5,7%	7,4%	7,9%
				(6,1%)	(8,5%)	(8,1%)
– Petrol price	11,8%	7,2%	-10,7%	2,2%	7,6%	7,9%
				(3,8%)	(11,5%)	(8,7%)
– Electricity price	8,7%	7,2%	9,4%	9,6%	8,5%	9,0%
3. Potential growth	2,0%	1,7%	1,5%	1,4%	1,5%	1,7%
	(2,1%)	(1,8%)	(1,6%)	(1,5%)	(1,6%)	(1,8%)
4. Repurchase rate (per cent)	5,00	5,57	5,89	6,91	7,00	7,00

The figures in brackets represent the previous assumptions of the Monetary Policy Committee.

* For an explanation of foreign-sector assumptions and domestic-sector assumptions, see pages 45 and 46.

Selected forecast results: Monetary Policy Committee meeting on 21 July 2016

Selected forecast results (quarterly)

Year-on-year percentage change	Actual						Forecas													
	1	2	3	4	2015	1	2	3	4	2016	1	2	3	4	2017	1	2	3	4	2018
1. Headline inflation	4,2	4,6	4,7	4,9	4,6	6,5	6,2	6,5	7,1	6,6	6,6	6,1	5,8	5,5	6,0	5,4	5,5	5,5	5,6	5,5
							(6,4)	(6,8)	(7,3)	(6,7)	(7,0)	(6,4)	(5,8)	(5,5)	(6,2)	(5,4)	(5,4)	(5,4)	(5,5)	(5,4)
2. Core inflation	5,7	5,6	5,3	5,2	5,5	5,5	5,5	5,9	6,1	5,8	6,0	5,9	5,4	5,2	5,7	5,2	5,2	5,3	5,4	5,3
							(5,8)	(6,2)	(6,2)	(5,9)	(6,2)	(6,0)	(5,3)	(5,1)	(5,7)	(5,1)	(5,1)	(5,2)	(5,3)	(5,2)

The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Selected forecast results (annual)

Per cent	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real gross domestic product (GDP) growth	2,3%	1,6%	1,3%	0,0%	1,1%	1,5%
	(2,2%)	(1,5%)		(0,6%)	(1,3%)	(1,7%)
2. Current account as a ratio to nominal GDP	-5,9	-5,3	-4,3	-4,2	-4,4	-4,7
	(-5,8)	(-5,4)	(-4,4)	(-4,6)	(-4,7)	(-4,9)

The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Statement issued by the South African Reserve Bank

25 July 2016

Incorrect data for the trading of equities by non-residents

The South African Reserve Bank (the Bank) has noted the announcement yesterday (24 July 2016) by the JSE Limited (JSE) that a programming error resulted in incorrect data for the trading of equities by non-residents for the period 31 May to 20 July 2016 being reported. The error has since been corrected and the JSE has reassured the Bank that steps are being taken to prevent a reoccurrence.

The JSE's announcement means that incorrect data (combined bond and equity net purchases by non-residents) was quoted in the July 21 Monetary Policy Committee (MPC) statement. The incorrect data did not have any bearing on the Committee's decision.

The revised data for equity transactions by non-residents as published by the JSE yesterday is: May 2016 (net sales of R16,1 billion); June 2016 (net sales of R20,3 billion); July 2016 to date (net purchases of R0,05 billion). The incorrect data recorded net purchases by non-residents as R6,4 billion (May 2016); R63,8 billion (June); and R27,9 billion (July to date).

Data for the net purchases of South African bonds by non-residents was not affected by the programming error. Net purchases totalled R7,0 billion in June and for July to date have amounted to R8,6 billion.

Statement of the Monetary Policy Committee

22 September 2016

Issued by Lesetja Kganyago, Governor of the South African Reserve Bank, at a meeting of the Monetary Policy Committee in Pretoria

Headline consumer price inflation declined to within the target range of 3–6 per cent in August, in line with the expectations of the South African Reserve Bank (the Bank). Nevertheless, higher inflation outcomes are forecast in the near term before a sustained return to within the target range during 2017. While domestic economic growth prospects appear more favourable following the positive surprise in the second quarter of this year, the outlook remains constrained against a backdrop of weak domestic fixed investment and low levels of business and consumer confidence.

Risks from the global environment persist, although the volatility in global financial markets in the wake of the Brexit decision has subsided. Prospects for a resumption of monetary policy tightening in the United States (US) remain a key risk to the pattern of global capital flows and to emerging market exchange rates in general, with continued uncertainty regarding the timing and pace of future moves.

The year-on-year inflation rate, as measured by the consumer price index (CPI) for all urban areas, measured 6,0 per cent and 5,9 per cent in July and August respectively, down from 6,3 per cent in June. Food price inflation accelerated to a recent high of 11,6 per cent, with the category of food and non-alcoholic beverages contributing 1,7 percentage points to the overall inflation outcome. Goods price inflation measured 6,1 per cent in August, down from 6,5 per cent in July, while services price inflation was unchanged at 5,7 per cent. The Bank's measure of core inflation – which excludes food, fuel and electricity – was also unchanged at 5,7 per cent.

Producer price inflation for final manufactured goods increased in June and July to 6,8 per cent and 7,4 per cent respectively, following a decline to 6,5 per cent in May. This acceleration was mainly due to the impact of the drought on manufactured food price inflation, which measured 12,6 per cent in July. This was its highest level since January 2009. Producer price inflation for agricultural products also remained elevated at around 20 per cent.

The latest inflation forecast of the Bank has improved over the first four quarters of the forecast horizon, and remains more or less unchanged for the rest of the period. Inflation is expected to peak at 6,7 per cent in the fourth quarter of this year, compared with 7,1 per cent previously, with an earlier sustained return to within the target range now forecast to occur during the second quarter of 2017. Inflation is expected to average 6,4 per cent in 2016 and 5,8 per cent in 2017, compared with 6,6 per cent and 6,0 per cent previously. The forecast for 2018 is unchanged at an average of 5,5 per cent. The downward revisions are due in part to a lower starting point, lower administered price inflation assumptions (including petrol, electricity, and rates and taxes inflation) as well as a less depreciated exchange rate assumption.

Compared with the previous forecast, core inflation is expected to average 0,1 percentage point less, at 5,7 per cent in 2016 and 5,6 per cent in 2017, and is unchanged at 5,3 per cent in 2018. Core inflation is expected to remain within the target range over the forecast period, with a peak of 5,9 per cent in the final quarter of this year.

Inflation expectations, as reflected in the survey conducted by the Bureau for Economic Research, have remained relatively unchanged, but with some variations between the different groups of respondents. Average inflation expectations declined by 0,2 per cent to 6,0 per cent for 2017 and remained unchanged at 5,9 per cent for 2018. While the expectations of both analysts and business people declined, those of trade union officials remained unchanged for 2017 but increased for 2018. The long-term, five-year-ahead inflation expectations are unchanged at 5,9 per cent, and remain uncomfortably close to the upper end of the target range.

The inflation expectations of analysts, as reflected in the Reuters Econometer survey, have also shown successive declines during the past few months, with the median expectation for inflation to return to within the target range during the second quarter of 2017. The longer-term expectations of market participants implicit in the break-even inflation rates (the yield differential between conventional bonds and inflation-linked bonds) declined further since the previous meeting of the Monetary Policy Committee (MPC), although they remain above the upper end of the inflation target range.

The global growth outlook remains subdued, amid slowing growth in the advanced economies and a general downward revision to forecasts. Although prospects for the US economy remain relatively favourable, outcomes have not been consistently positive, as evidenced by the recent weak consumer expenditure and manufacturing sector data. Nevertheless, labour market conditions have improved and the investment slowdown appears to have bottomed.

Although the short-term impacts of the Brexit vote on the economy of the United Kingdom (UK) have not been as negative as initially feared, growth forecasts have been revised down as concerns persist regarding the longer-term investment outlook. The euro area recovery remains steady but subdued. The Japanese economy remains caught in a deflation and low growth bind, following a weak second quarter.

The recent firmer trend in commodity prices has improved growth prospects for commodity-producing emerging markets in particular, along with more favourable capital inflows. It is unclear how long these positive developments will continue. Indications are that the negative growth cycles in both Russia and Brazil have turned; both countries are expected to record positive, but weak rates of growth in the near term. The Chinese economy appears to have stabilised following concerns about a slowdown earlier in the year, but concerns regarding the financial sector persist.

Given the broadly benign global inflation environment, apart from in some emerging markets, monetary policies have generally remained accommodative, with further loosening or a loosening bias in a number of the advanced economies. A notable exception is the US, where the bias remains for a resumption of interest rate normalisation but the timing remains uncertain. Following the decision of the Federal Reserve yesterday to keep rates unchanged, the market expectation is for the next move to be in December. The data-dependent nature of future decisions means that these prospects are likely to change with new data releases, imparting a degree of volatility to financial markets and to global capital flows. The US policy rate trajectory is still expected to be moderate.

The exchange rate of the rand has been affected by these global events, but has also been impacted by domestic fundamentals and political developments. Since the previous meeting of the MPC, the rand has traded in a range of R13,28 and R14,73 against the US dollar – and has appreciated by 6,3 per cent against the US dollar, by 4,3 per cent against the euro, and by 5,2 per cent on a trade-weighted basis.

The rand initially appreciated markedly in line with other emerging market currencies as the chances of US Federal Reserve tightening receded in August following disappointing labour market data. At that stage, the rand recorded its strongest level since October 2015. This trend was reversed following increased domestic risk perceptions, which were also reflected in rising domestic government bond yields. More recently, the rand has been positively affected by the stronger gross domestic product (GDP) growth outcome and a significant narrowing of the current account deficit, following a sizeable trade account surplus in the second quarter. Although this may in part reflect a delayed adjustment to the depreciated exchange rate of the rand, the trade surplus is not expected to be sustained at similar levels in the coming months.

The marked appreciation of the rand during the past few days appears to be driven by expectations of unchanged US monetary policy as well as by speculation regarding possible purchases of the rand related to a major M&A transaction. The rand, however, remains vulnerable to future changes in the US monetary policy stance, domestic political developments as well as to the risk of a possible ratings downgrade later in the year. Nevertheless, the upside risk to inflation from the exchange rate appears to have moderated somewhat.

The domestic economy remains weak despite the positive growth surprise in the second quarter of 2016, when an annualised growth rate of 3,3 per cent was recorded. This was driven by a rebound in the primary sector and a surge in real exports. Mainly as a result of the higher starting point, the Bank's forecast for economic growth for 2016 has been revised upwards: from 0 per cent to 0,4 per cent. The forecasts for the next two years have been increased too, albeit marginally by 0,1 percentage points, to 1,2 per cent and 1,6 per cent respectively. Estimates of potential output growth are unchanged, implying a persistence of below-potential growth. The trend in the Bank's composite leading indicator of economic activity remains indicative of subdued growth.

While the second quarter growth performance was more favourable, data for July suggest that this improvement is unlikely to be sustained in the third quarter. Both the mining and manufacturing sectors recorded negative month-to-month growth rates in July, and the Barclays Purchasing Managers' Index (PMI) declined sharply in August following five consecutive months above the neutral 50-point mark. Stresses are also evident in the construction sector, with a further sharp decline in building plans passed during July.

A key constraint to the growth outlook remains the sluggish state of domestic gross fixed capital formation, which contributed negatively to GDP growth during the first two quarters of this year. In the second quarter of 2016, domestic fixed investment contracted in both the private and the public sectors (including government and public corporations). Private-sector fixed investment has recorded negative or zero growth for six consecutive quarters, reflecting low levels of business confidence. The Rand Merchant Bank/Bureau for Economic Research (RMB/BER) business confidence index remains below the neutral level despite an improvement in the third quarter.

This adverse investment climate and rising costs have contributed to the further deterioration in employment prospects, particularly in the mining and manufacturing sectors. The official unemployment rate increased to 26,6 per cent in the second quarter, from 25,0 per cent a year earlier. The increase in employment that was recorded in the second quarter was almost entirely attributable to temporary employment opportunities related to the municipal elections.

Consumption expenditure by households remains weak, despite a return to positive growth following the first-quarter contraction. The annualised growth of 1,0 per cent suggests that consumers remain under pressure. Durable goods consumption continued to contract in the second quarter and is consistent with the further decline in the First National Bank/Bureau for Economic Research (FNB/BER) consumer confidence index. In July, retail trade sales declined further, in contrast to positive wholesale trade sales. Domestic new vehicle sales continued their negative trend in July and August, while exports of motor vehicles have remained robust.

The outlook for consumption expenditure growth is expected to remain constrained given the unfavourable employment outlook, the absence of significant positive wealth effects, and the slow pace of growth in the real disposable income of households. Average wage growth and wage settlement rates have declined slightly, but there are risks of increases in excess of inflation and productivity gains.

Credit extension to households continues to contract in real terms, likely driven by both supply- and demand-side considerations. However, there has been a moderate increase in mortgage credit extension. As before, growth in credit extension to the corporate sector has been more resilient but below its recent peaks.

Food prices remain a significant driver of inflation given the persistent drought, although long-range weather forecasts suggest improved rainfall prospects in the coming months. Food price inflation is still expected to reach a peak in the fourth quarter of this year, at around 12,3 per cent, slightly lower than forecast previously. Spot and futures prices of wheat and maize have declined in recent weeks, but meat prices are expected to rise further as farmers restock their herds. Global food price inflation has increased, mainly due to an acceleration in the price of sugar.

International oil prices have fluctuated between US$40 and US$50 per barrel for the past six months, amid uncertainty relating to a possible supply freeze by the Organization of the Petroleum Exporting Countries (OPEC). The assumption for Brent crude oil in the Bank's forecasting model is unchanged, and assumes a moderate increase over the forecast period. After two consecutive months of price declines totalling R1,17 per litre, the domestic petrol price is expected to increase in October due to adverse movements in both the exchange rate and international product prices.

The MPC has noted improvements in the expected inflation trajectory during the course of the year. Apart from the tighter stance of monetary policy, this has also been driven by lower starting points, as inflation surprised at times on the downside, and changed assumptions underlying the forecast. The expected peak in headline inflation is notably lower, and an earlier return to within the target range is also expected. Most of the changes have been for the current and coming year, whereas the changes in the forecast for 2018 have been marginal. Changes to the core inflation forecast have been less pronounced, but it is no longer expected to breach the upper end of the target range. Despite these improvements, the longer-term inflation trajectory remains uncomfortably close to the upper end of the target range, with high wage settlement rates and inflation expectations contributing to this persistence.

The MPC assesses the risks to the inflation forecast to be more or less balanced at this stage. The current level of the rand is stronger than that implicit in the forecast, and, in conjunction with continued low levels of pass-through from the rand to inflation, the risks are assessed to have moderated somewhat. However, some of the positive factors impacting on the rand may be temporary, and the currency remains vulnerable to both domestic and external shocks.

The other major risk to the inflation outlook relates to food prices. The forecast still expects food prices to peak in the final quarter of this year. The future trajectory of these prices will be highly dependent on the normalisation of rainfall in the coming months. Favourable weather patterns could see food price inflation falling faster than that implicit in the forecast.

Despite the improved growth performance in the second quarter, the growth outlook remains constrained, as reflected in the more or less unchanged outlook for the next two years. The MPC assesses the risk to the growth forecast to be broadly balanced as growth prospects remain dependent on global conditions, the implementation of structural reforms as well as changes in business and consumer confidence.

Given the improvements in the inflation forecast, the weak domestic economic outlook and the assessment of the balance of risks, the MPC has unanimously decided to keep the repurchase rate unchanged at 7,0 per cent per annum.

The MPC remains concerned about the overall inflation trajectory which remains in the upper end of the inflation target range. The MPC is of the view that, should the current forecasts transpire, we may be close to the end of the tightening cycle. The MPC is aware that a number of the favourable factors which have contributed to the improved outlook can change very quickly, resulting in a reassessment of this view. The bar for monetary accommodation, by contrast, remains high, as the MPC would need to see a more significant and sustained decline of the inflation trajectory to within the inflation target range.

Summary of assumptions: Monetary Policy Committee meeting on 22 September 2016*

1. Foreign-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real GDP growth in South Africa's major trading-partner countries...	3,0%	3,1%	2,8%	2,7%	2,9%	3,1%
					(3,0%)	(3,3%)
2. International commodity prices in US$ (excluding oil).........................	-6,4%	-9,8%	-19,3%	-4,5%	5,5%	1,0%
				(-8,5%)	(1,0%)	(1,5%)
3. Brent crude (US$/barrel)	108,8	99,2	52,5	44,3	53,5	57,5
				(44,6)		
4. World food prices (US$)	-1,6%	-3,8%	-18,7%	-4,9%	3,0%	3,0%
				(-6,0%)	(2,0%)	
5. International wholesale prices	0,3%	-0,1%	-3,5%	-1,1%	1,1%	1,2%
				(-1,3%)	(1,0%)	
6. Real effective exchange rate of the rand (index 2010 = 100)	81,91	79,17	80,08	75,67	78,00	78,00
				(74,01)	(75,00)	(75,00)
7. Real effective exchange rate of the rand...	-10,1%	-3,3%	1,1%	-5,5%	3,1%	0,0%
				(-7,6%)	(1,3%)	

2. Domestic-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real government consumption expenditure	3,8%	1,8%	0,2%	1,5%	1,0%	1,0%
2. Administered prices...	8,7%	6,7%	1,7%	5,1%	6,7%	7,3%
				(5,7%)	(7,4%)	(7,9%)
– Petrol price	11,8%	7,2%	-10,7%	1,0%	7,0%	7,9%
				(2,2%)	(7,6%)	
– Electricity price..	8,7%	7,2%	9,4%	9,3%	7,7%	8,0%
				(9,6%)	(8,5%)	(9,0%)
3. Potential growth...	2,0%	1,7%	1,5%	1,4%	1,5%	1,7%
4. Repurchase rate (per cent)..	5,00	5,57	5,89	6,91	7,00	7,00

The figures in brackets represent the previous assumptions of the Monetary Policy Committee.
* For an explanation of foreign-sector assumptions and domestic-sector assumptions, see pages 45 and 46.

Selected forecast results: Monetary Policy Committee meeting on 22 September 2016

Selected forecast results (quarterly)

Year-on-year percentage change	Actual							Forecast												
	1	2	3	4	2015	1	2	3	4	2016	1	2	3	4	2017	1	2	3	4	2018
1. Headline inflation............................	4,2	4,6	4,7	4,9	4,6	6,5	6,2	6,2	6,7	6,4	6,2	5,8	5,8	5,5	5,8	5,4	5,4	5,5	5,6	5,5
							(6,2)	(6,5)	(7,1)	(6,6)	(6,6)	(6,1)	(5,8)	(5,5)	(6,0)	(5,4)	(5,5)	(5,5)	(5,6)	(5,5)
2. Core inflation..................................	5,7	5,6	5,3	5,2	5,5	5,5	5,5	5,7	5,9	5,7	5,8	5,7	5,5	5,4	5,6	5,3	5,3	5,3	5,4	5,3
							(5,5)	(5,9)	(6,1)	(5,8)	(6,0)	(5,9)	(5,4)	(5,2)	(5,7)	(5,2)	(5,2)	(5,3)	(5,4)	(5,3)

The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Selected forecast results (annual)

Per cent	Actual			Forecast		
	2013	2014	2015	2016	2017	2018
1. Real gross domestic product (GDP) growth	2,3%	1,6%	1,3%	0,4%	1,2%	1,6%
				(0,0%)	(1,1%)	(1,5%)
2. Current account as a ratio to nominal GDP.............................	-5,9	-5,3	-4,3	-4,0	-4,2	-4,4
				(-4,2)	(-4,4)	(-4,7)

The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Foreign-sector assumptions

1. **Trading-partner gross domestic product** (GDP) growth is determined broadly using the Global Projection Model (GPM) of the International Monetary Fund (IMF), which is then adjusted to aggregate the GDP growth rates of South Africa's major trading partners on a trade-weighted basis. Individual projections are done for the four largest trading partners: the euro area, China, the United States (US) and Japan. The remaining trading partners are grouped into three regions: emerging Asia (excluding China), Latin America, and the Rest of Countries bloc. The assumption takes account of country-specific 'consensus' forecasts as well as IMF regional growth prospects.

2. The **commodity price index** is a weighted aggregate price index of the major South African export commodities based on 2010 prices. The composite index represents the total of the individual commodity prices multiplied by their smoothed export weights. Commodity price prospects generally remain commensurate with global liquidity as well as commodity supply/demand pressures as reflected by the pace of growth in the trading-partner countries.

3. The **Brent crude oil price** is expressed in US dollar per barrel. The assumption incorporates an analysis of the factors of supply, demand (using global growth expectations) and inventories of oil (of all grades) as well as the expectations of the US Energy Information Administration (EIA), the Organization of the Petroleum Exporting Countries (OPEC) and Reuters.

4. **World food prices** uses the composite food price index of the Food and Agriculture Organization of the United Nations (FAO) in US dollar. The index is weighted using average export shares and represents the monthly change in the international prices of a basket of five food commodity price indices (cereals, vegetable oil, dairy, meat and sugar). World food price prospects incorporate selected global institution forecasts for food prices as well as imbalances from the anticipated trend in international food supplies relative to expected food demand pressures.

5. **International wholesale prices** refers to a weighted aggregate of the producer price indices (PPIs) of South Africa's major trading partners, as per the official real effective exchange rate calculation of the South African Reserve Bank (the Bank). Although individual country consumer price index (CPI) inflation forecasts provide a good indication for international wholesale price pressures, the key drivers of the assumed trend in global wholesale inflation are oil and food prices as well as expected demand pressures emanating from the trends in the output gaps of the major trading-partner countries. Other institutional forecasts for international wholesale prices are also considered.

6. The **real effective exchange rate** is the nominal effective exchange rate of the rand deflated by the producer price differential between South Africa and an aggregate of its trading-partner countries (as reflected in the *Quarterly Bulletin* published by the Bank). Although the nominal rate is a weighted average of South Africa's 20 largest trading partners, particular focus is placed on the rand outlook against the US dollar, the euro, the Chinese yuan, the British pound and the Japanese yen. The assumed trend in the real effective exchange rate remains constant from the latest available quarterly average over the projection period. However, due to the time delay in the calculation of the real effective exchange rate, the most recent trend in the nominal effective exchange rate is adjusted with the assumed trend for the domestic and foreign price differential for the current quarter. This may result in a technical annual adjustment over the current and next forecast year that differs from zero.

Domestic-sector assumptions

1. **Government consumption expenditure** (real) is broadly based on the most recent National Treasury budget projections. However, since these projections take place twice a year, the most recent actual data points also play a significant role in the assumptions process.

2. **Administered prices** represent the total of regulated and non-regulated administered prices as reflected by Statistics South Africa (Stats SA). Their weight in the consumer price index basket is 18,48 per cent and the assumed trend over the forecast period is largely determined by the expected pace of growth in petrol prices, electricity tariffs, school fees as well as water and other municipal assessment rates.

   The **petrol price** is an administered price and comprises 5,68 per cent of the overall basket. The basic fuel price (which currently accounts for roughly half of the petrol price) is determined by the exchange rate and the price of petrol quoted in US dollars at refined petroleum centres in the Mediterranean, the Arab Gulf and Singapore. The remainder of the petrol price is made up of wholesale and retail margins as well as the fuel levy and contributions to the Road Accident Fund (RAF). Since most taxes and retail margins are changed once a year, the assumed trajectory of the petrol price largely reflects the anticipated trend in oil prices and the exchange rate.

   The **electricity price** is an administered price measured at the municipal level with a weight of 4,13 per cent in the CPI basket. Electricity price adjustments generally take place in July and August of each year, and the assumed pace of increase over the forecast period reflects the multi-year price determination (MYPD) by the National Energy Regulator in respect of Eskom, with a slight adjustment for measurement at municipal level.

3. The **pace of potential growth** is derived from the Bank's semi-structural potential output model. The measurement accounts for the impact of the financial cycle on real economic activity and introduces economic structure via the relationship between potential output and capacity utilisation in the manufacturing sector (see South African Reserve Bank Working Paper Series WP/14/08).

4. The **repurchase rate** (commonly called the 'repo rate') is the official monetary policy instrument and represents the interest rate at which banks borrow money from the Bank. Although the rate is held constant over the forecast period, this assumption is relaxed in alternative scenarios where, for instance, the policy rate responds to deviations of output from its potential and the gap between future inflation and the inflation target, in other words, via a stylised 'Taylor rule', one that is based on market expectations of the future path of the policy rate, and other paths (as requested).

Glossary

Advanced economies: Advanced economies are countries with high levels of gross domestic product per capita. These countries are sometimes described as industrialised. With further growth, however, they have tended to diversify, with particular emphasis on services sectors.

Balance of payments: This is a record of transactions between the home country and the rest of the world over a specific period of time. It includes the current and financial accounts. See also 'current account' below.

Budget deficit: A budget deficit indicates the extent to which government expenditure exceeds government revenue (a budget surplus occurs when revenue exceeds expenditure).

Business and consumer confidence: These are economic indicators that measure the state of optimism about the economy and its prospects among business managers and consumers.

Central projection: This is the most likely outcome for the variable of interest over the period, according to forecast of the South African Reserve Bank (the Bank).

Commodity currencies: Commodity currencies are currencies from countries whose exports include substantial quantities of commodities (e.g. iron ore or gold).

Commodity prices: Commodities can refer to energy, agriculture, metals and minerals. Major South African-produced commodities include platinum and gold.

Consumer price index (CPI): The CPI provides an indication of aggregate price changes in the domestic economy. The index is calculated using a number of categories forming a representative set of goods and services bought by consumers.

Core inflation: Core generally refers to underlying inflation, excluding volatile elements (e.g. food and energy prices). The Bank's forecasts and discussions refer to headline CPI excluding food, non-alcoholic beverages, petrol and electricity prices.

Crude oil price: This is the US dollar price per barrel of unrefined oil (Brent crude refers to unrefined North Sea oil).

Current account: The current account of the balance of payments consists of net exports (exports less imports) in the trade account, as well as the services, income and current transfer account.

Emerging markets: Emerging markets are countries with low to middle income per capita. They are advancing rapidly and are integrating with global (product and capital) markets.

Exchange rate depreciation (appreciation): Exchange rate depreciation (appreciation) refers to a decrease (increase) in the value of a currency relative to another currency.

Exchange rate pass-through: This is the effect of exchange rate changes on domestic inflation (i.e. the percentage change in domestic CPI due to a 1 per cent change in the exchange rate). Changes in the exchange rate affect import prices, which in turn affect domestic consumer prices and inflation.

Flexible inflation targeting: This refers to inflation-targeting regimes that consider changes in inflation and other variables affecting the real economy in the short term. Under strict inflation targeting only inflation matters, but flexible inflation-targeting takes into account other variables, such as output.

Forecast horizon: This is the future period over which the Bank generates its forecasts, typically between two and three years.

Gross domestic product (GDP): GDP is the total market value of all goods and services produced in a country. It includes total consumption expenditure, capital formation, government consumption expenditure and the value of exports less the value of imports.

Gross fixed capital formation (investment): The value of acquisitions of capital goods (e.g. machinery, equipment and buildings) by firms, adjusted for disposals, constitutes gross fixed capital formation.

Headline consumer price index (CPI): Headline CPI refers to CPI for all urban areas that is released monthly by Statistics South Africa. Headline CPI is a measure of price levels in all urban areas. The 12-month percentage change in headline CPI is referred to as 'headline CPI inflation' and reflects changes in the cost of living. This is the official inflation measure for South Africa.

Household consumption: This is the amount of money spent by households on consumer goods and services.

Inflation (growth) outlook: This outlook refers to the evolution of future inflation (growth) over the forecast horizon.

Inflation targeting: This is a monetary policy framework used by central banks to steer actual inflation towards an inflation target level or range.

Leverage: This refers to the process of borrowing money to buy assets or fund consumption; highly leveraged entities are those with a large amount of outstanding debt.

Median: This is a statistical term used to describe the observed number that separates ordered observations in half.

Monetary policy normalisation: This refers to the unwinding of unusually accommodative monetary policies. It could also mean adjusting the economy's policy rate towards its real neutral policy rate.

Nominal effective exchange rate (NEER): A NEER is an index that expresses the value of a country's currency relative to a basket of other (trading-partner) currencies. An increase (decrease) in the effective exchange rate indicates a strengthening (weakening) of the domestic currency with respect to the selected basket of currencies. The weighted average exchange rate of the rand is calculated against 15 currencies. The weights of the five major currencies are as follows: euro (34,82), US dollar (14,88), Chinese yuan (12,49), British pound (10,71) and Japanese yen (10,12). Index: 2000 = 100. See 'Real effective exchange rate'

Output gap/potential growth: Potential growth is the rate of GDP growth that could theoretically be achieved if all productive assets in the economy were employed in a stable inflation environment. The output gap is the difference between actual growth and potential growth, which accumulates over time. If this is negative, then the economy is viewed to be underperforming and demand pressures on inflation are low. If the output gap is positive, the economy is viewed to be overheating and demand pressures are inflationary.

Producer price index (PPI): This index measures changes in the prices of goods at the factory gate. Stats SA currently produces five different indices that measure price changes at different stages of production. Headline PPI is the index for final manufactured goods. PPI measures indicate potential pressure on consumer prices.

Productivity: Productivity indicates the amount of goods and services produced in relation to the resources utilised in the form of labour and capital.

Purchasing power parity (PPP): PPP is based on the law of one price, assuming that in the long run, exchange rates will adjust so that purchasing power across countries is approximately the same. It is often used to make cross-country comparisons without the distortionary impact of volatile spot exchange rates.

Real effective exchange rate (REER): The REER is the NEER adjusted for inflation differentials between South Africa and its main trading partners. See 'Nominal effective exchange rate'.

Repurchase (repo) rate: This is the policy rate that is set by the Monetary Policy Committee (MPC). It is the rate that commercial banks pay to borrow money from the Bank.

Real repo rate: This is the nominal repo rate, as set by the MPC, adjusted for expected inflation.

Taper tantrum: The term 'taper tantrum' is widely used to describe the strong reaction of global financial markets to comments by the US Federal Reserve (Fed) chairman in May 2013 that the Fed would likely start to reduce (or 'taper') the pace of its asset purchases later that year.

Terms of trade: This refers to the ratio of export prices to import prices.

Unit labour costs: A unit labour cost is the labour cost to produce one 'unit' of output. This is calculated as the total wages and salaries in the non-agricultural sector divided by the real value added at basic prices in the non-agricultural sector of the economy.

Unsecured lending: These are loans extended without any collateral (guarantees or underlying assets) as security to protect the value of the loan.

Abbreviations

AFE	average forecast error
BER	Bureau for Economic Research
BIS	Bank for International Settlements
CAD	current accound deficit
CDS	credit default swaps
CPI	consumer price index
CPIX	consumer price index for metropolitan and other urban areas, excluding the interest cost on mortgage bonds
ECB	European Central Bank
EMBI+	JPMorgan Emerging Market Bond Index Plus
EU	European Union
FAO	United Nations Food and Agriculture Organization
FNB	First National Bank
GDP	gross domestic product
IMF	International Monetary Fund
JSE	JSE Limited
MPC	Monetary Policy Committee
MPR	*Monetary Policy Review*
PPI	producer price index
REER	real effective exchange rate
repo (rate)	repurchase (rate)
RMB	Rand Merchant Bank
RMSE	root mean square error
SACU	Southern African Customs Union
SSA	sub-Saharan Africa
Stats SA	Statistics South Africa
the Bank	South African Reserve Bank
the Fed	United States Federal Reserve
UK	United Kingdom
ULC	unit labour cost
US	United States