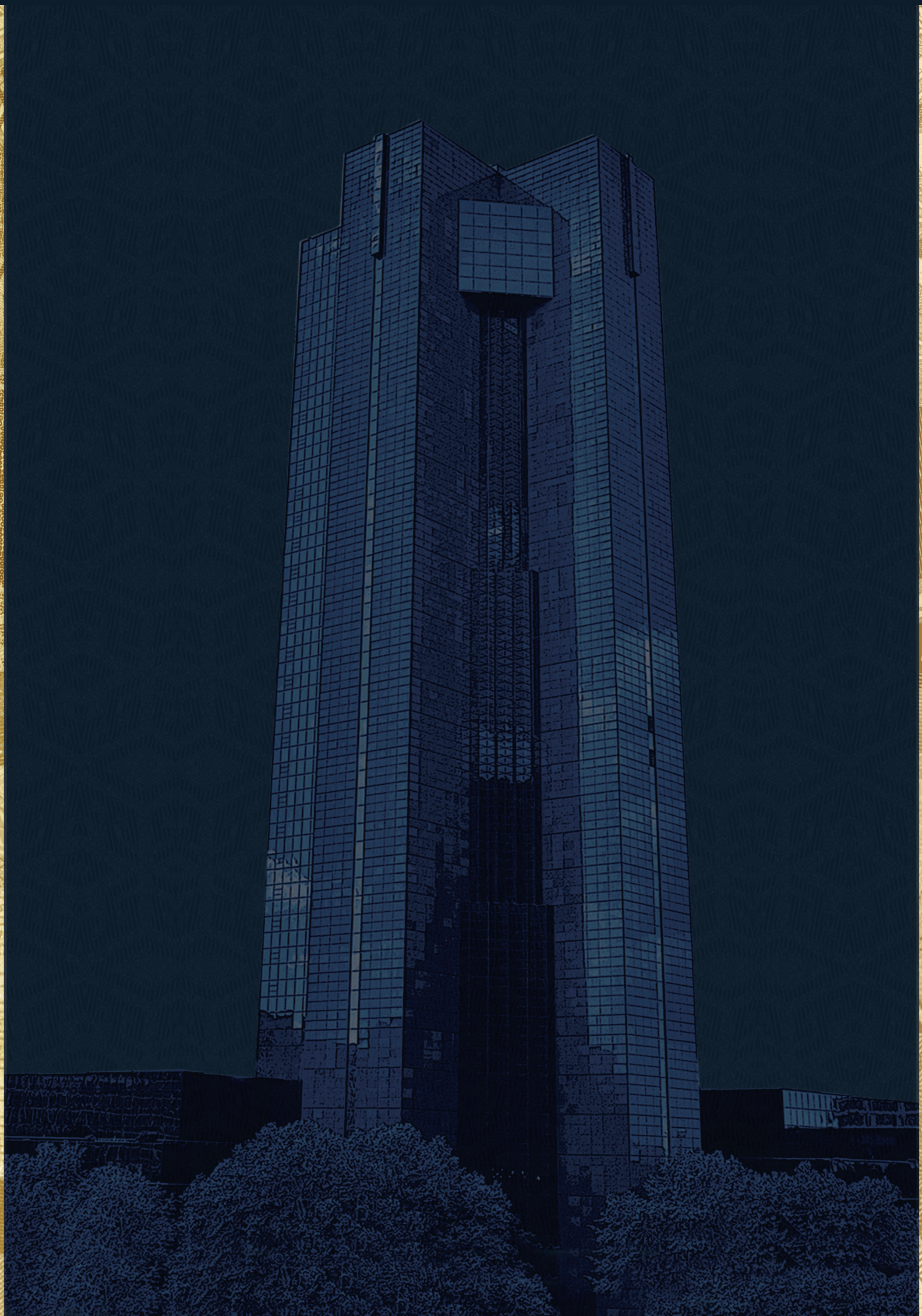
Monetary Policy Review

April 2017



South African Reserve Bank

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Preface

The primary mandate of the South African Reserve Bank (SARB) is to achieve and maintain price stability in the interest of balanced and sustainable economic growth. In addition, the SARB has a complementary mandate to oversee and maintain financial stability.

Price stability helps to protect the purchasing power and living standards of all South Africans. It provides a favourable environment for investment and job creation, and also helps to maintain and improve international competitiveness. The goal of price stability is quantified by the setting of an inflation target by government after consultation with the SARB. The SARB has operational independence. Monetary policy decisions are made by the SARB's Monetary Policy Committee (MPC), which is chaired by the Governor and includes the deputy governors as well as other senior officials of the SARB.

The MPC conducts monetary policy to keep inflation within a target range of 3–6%. This inflation targeting framework is flexible, meaning that inflation may be temporarily outside the target range, under certain circumstances. The MPC takes into account 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 decision of the MPC, together with a comprehensive statement, is communicated at a media conference at the end of each meeting.

The *Monetary Policy Review (MPR)* is published twice a year and is aimed at broadening public understanding of the objectives and conduct of monetary policy. The *MPR* covers domestic and international developments that affect inflation and that impact on the monetary policy stance. It is fundamentally a forward looking document which focuses on the outlook for the South African economy, in contrast to the *Quarterly Bulletin* which records and explains recent economic developments. The *MPR* is presented by senior officials of the SARB 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.

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Executive summary

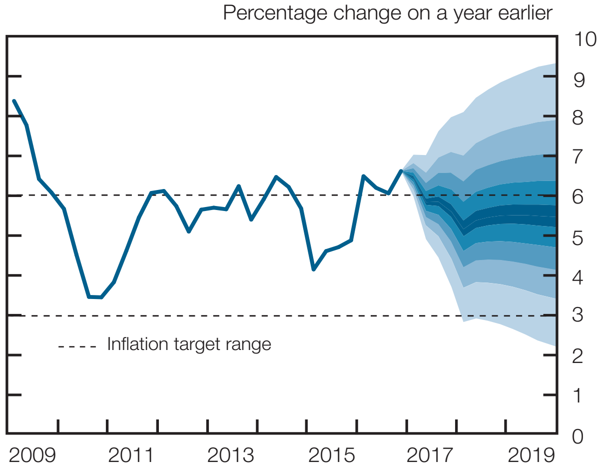
South Africa's macroeconomic imbalances have eased somewhat, with household balance sheets as well as fiscal and current account deficits all moving towards more sustainable levels. Inflation is falling back within the target range, and is expected to average 5.4% in 2018 and 5.5% in 2019. Meanwhile, gross domestic product (GDP) growth is projected to pick up from 2016's post-crisis low. The short-term growth improvement largely reflects a recovery in the primary sector (agriculture and mining). Over the medium term, output is expected to benefit from renewed investment, stronger household consumption and improved global growth. Growth prospects, however, remain subdued, while inflation is staying relatively high despite receding shocks.

The previous *Monetary Policy Review (MPR)*, published in October 2016, welcomed an improvement in global conditions. This progress has mostly been sustained. Pessimism about world growth has faded somewhat, with themes of secular stagnation and ultra-low long term interest rates retreating in favour of reflation and a degree of optimism. In the United States (US), measures of policy uncertainty are elevated, yet volatility is unusually low while equity markets are close to record highs. Inflation is reverting to target levels following half a decade of outcomes below 2%, and employment gains remain robust. In this context, the US Federal Reserve (Fed) is moving with a new resolve towards policy normalisation. Yet the prospect of higher interest rates, which previously sent shockwaves through financial markets, now seems to be inspiring more confidence than fear. Meanwhile, policy stimulus in China appears to have stabilised growth at relatively high levels. This has allayed fears of a sharper slowdown and has breathed new life into industrial commodities.

In this environment, South Africa's terms of trade have rebounded to a five-year high. The exchange rate has recovered some ground: 2016 was the first year this decade in which the rand was stronger in December than it had been in January. These experiences have parallels across the emerging market space, with peer countries including Brazil, Chile, Colombia and Russia all experiencing stronger capital inflows and currency appreciation. However, the rising tide is not lifting all boats. In particular, Turkey (where macroeconomic imbalances remain acute) and Mexico (which is especially vulnerable to US policy risk) stand out as exceptions to the emerging market trend.

As in 2013, investors appear to be differentiating between emerging markets based on country specific characteristics. South Africa has benefited from its improved economic fundamentals. The current account deficit is likely to reach 3.2% of GDP this year, from 5.9% in 2013, reflecting a lower external financing requirement. Fiscal consolidation has so far reduced the fiscal deficit to 3.9% of GDP in 2016/17, from 4.4% in 2013/14, and the debt to GDP ratio is expected to stabilise

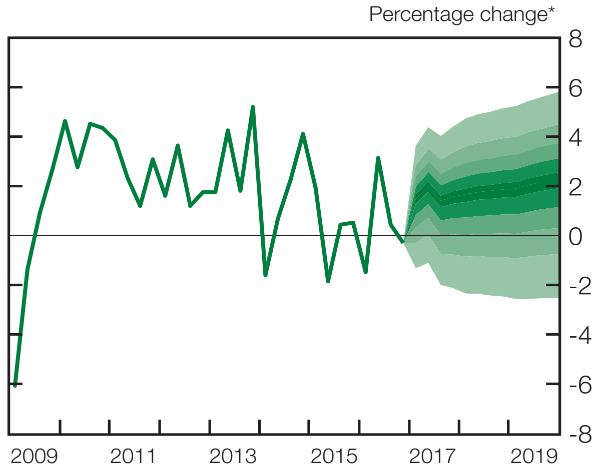
Targeted inflation* forecast



* CPI for all urban areas

Sources: SARB and Stats SA

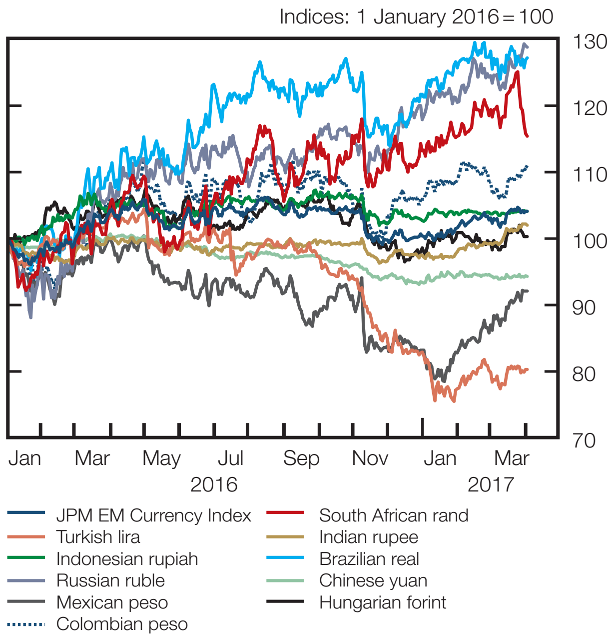
Real GDP



* At seasonally adjusted annualised rates

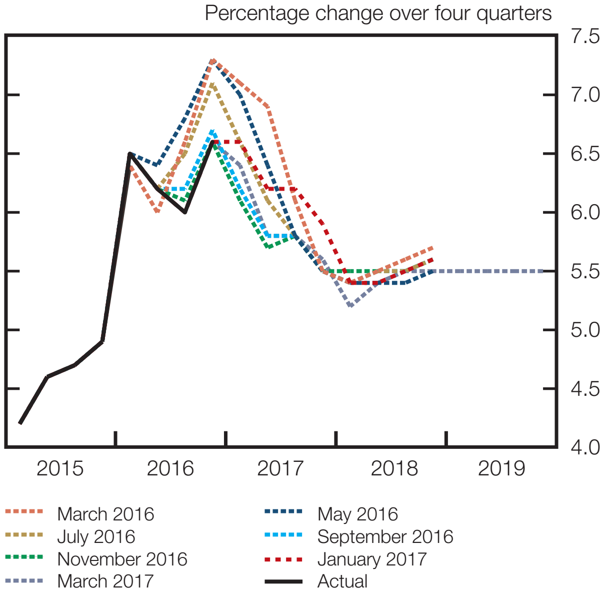
Sources: SARB and Stats SA

Emerging market currencies



Sources: Bloomberg and SARB

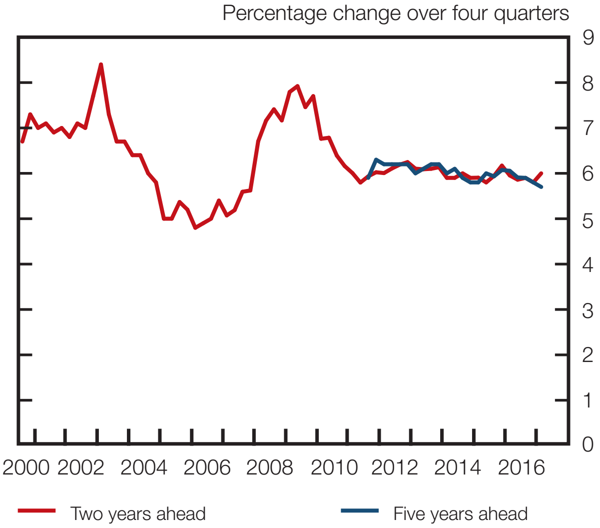
Changes to SARB CPI forecast*



* Dotted lines indicate forecasts

Sources: SARB and Stats SA

BER average inflation expectations since 2000*



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

Source: BER

by 2018/19. Household debt stocks – which peaked at nearly 90% of disposable incomes in 2008 – are now back to 2006 levels, slightly above 70%. This suggests the hangover from the pre-crisis debt boom may at last be fading. Inflation is slowing and should be back within the target range during the second quarter of 2017. These macroeconomic improvements are complemented by other positive outcomes, ranging from normalising rainfall patterns to a sharp reduction in the number of work days lost to strikes. The combined effect is somewhat better economic prospects over the medium term, potentially reversing the trend of slower growth and rising inflation which has dogged South Africa through the post-crisis period and 2016 in particular.

Overview of the policy stance

The repurchase (repo) rate has been stable at 7.0% for a year. During this period, the medium-term inflation forecast, which is the relevant time frame for monetary policy, has been similarly stable. Indeed, the forecast for 2018 has stayed within a narrow range of 5.4–5.5% at every Monetary Policy Committee (MPC) meeting to date. The 2019 forecast, which became available only for the March 2017 meeting, also shows inflation within the target range, at 5.5%. The existing monetary policy settings are therefore proving adequate to return inflation within the target range over the policy horizon, of around 12–24 months.

This outlook is quite favourable compared to a year ago. It nonetheless poses two sorts of policy problems. There are risks to this forecast which, on balance, incline towards higher inflation. Furthermore, projected inflation remains relatively high, close to the top end of the 3–6% target range throughout 2018 and 2019.

The exchange rate is the biggest risk to the forecast trajectory. The past year has seen sustained rand appreciation, breaking a five-year depreciation trend. The currency has weakened sharply on occasions during this period – for instance, following the US election result – but it has made up its losses relatively quickly. Furthermore, it has recently shrugged off US monetary tightening, despite previous sensitivity to Fed moves. In late March, however, it weakened abruptly following the Cabinet reshuffle. In time this may be identified as a new turning point for the currency, but at present the outlook is uncertain. The latest forecast starts with the implied dollar/rand exchange rate at about R13.40. That level is close to the actual rates prevailing at the start of the second quarter, and well above the first quarter strong point of about R12.30. The risk is that the rand could follow a more depreciated path than expected, which would, other things being equal, raise inflation.

The second problem is that, given the assumptions, forecast inflation is still relatively high. Although headline is decelerating as drought effects fade, underlying inflation remains elevated. Core inflation reached a post-crisis high of 5.9% in December 2016, and is likely to trend only moderately lower over the medium term, at no point falling below 5.0%. Furthermore, disinflation in core is driven almost exclusively by goods prices responding to exchange rate effects. Core goods inflation is projected at close to 4% through 2018 and 2019. By contrast, services inflation is much closer to 6% across the medium term.

An important aspect of the problem is the relatively high level of inflation expectations. Surveyed expectations for 2018 have not yet declined in line with the South African Reserve Bank's (SARB) forecast, remaining close to 6.0%. Furthermore, expectations for the period five to ten years ahead, as derived from surveys, market indicators or independent forecasts, all appear similarly high, at or above the top end of the inflation target range.

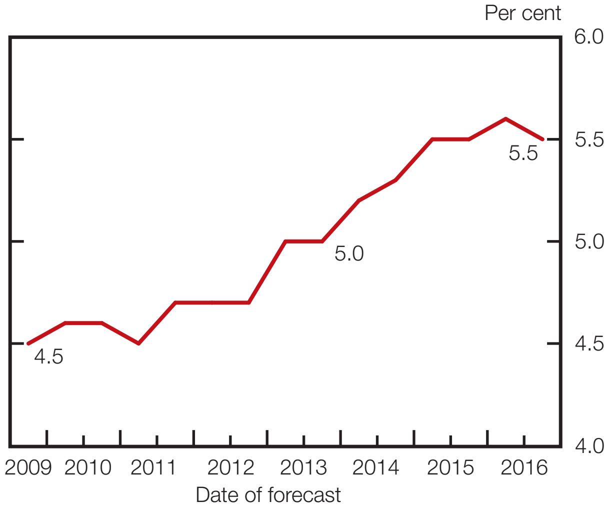
While stable expectations were welcome so long as they were resistant to higher inflation, their persistence becomes more problematic as inflation falls. The fact that expectations seem to be stuck close to 6.0% helps explain why inflation does not slow more rapidly over the forecast period. The relevant horizon for monetary policy now falls across 2018 and 2019. When these years arrive, shocks to food and petrol prices are expected to have dissipated. The exchange rate forecast for this period is stable in real terms.[1] Economic growth, while slightly improved, will likely remain low, and employment is anticipated to have declined. Yet inflation is still projected well above the midpoint of the target range. Unfortunately, with underlying inflation as well as inflation expectations pinned to the upper-end of the target range, even small negative shocks are likely to cause target breaches.

In recent years, policymakers have confronted the challenge of rising inflation alongside slowing growth. The forecast now shows some signs of improvement on both counts. Inflation appears to be returning to target, while 'green shoots' of growth have been visible following the disappointments of 2016. Furthermore, smaller current account deficits are reducing external financing requirements, while debt trajectories in both the household and public sectors appear more clearly sustainable. These developments have permitted a clearer sense over the past three MPC meetings that additional policy tightening may not be necessary.

Nonetheless, this fledgling recovery is vulnerable to shocks. The expected degree of improvement for both growth and inflation is modest at best. Forecast inflation and inflation expectations remain relatively high, constraining prospects for rate cuts. The economy is on a path back to full production, but progress is expected to be gradual, with the output gap effectively closed only by the end of 2019 despite sustained monetary and fiscal support to growth. Furthermore, even at full capacity the economy's growth rate will remain unsatisfactory, below historical averages and only slightly above the growth rate of the population. Improving the long run potential of the economy to grow requires reforms to boost investment and improve the functioning of key markets, but such initiatives are mostly outside the responsibilities of the central bank.

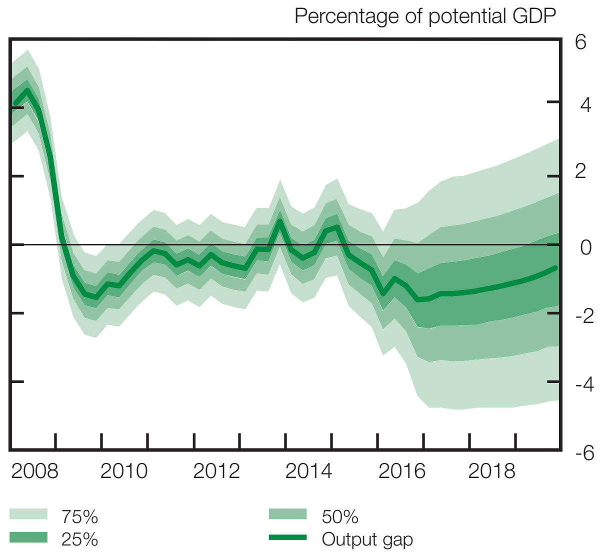
1 In fact, in the forecasting model the longer-run exchange rate does not cause inflation but responds to it, with the nominal exchange rate depreciating from its current starting point in line with inflation differentials.

South Africa's five year ahead inflation forecast



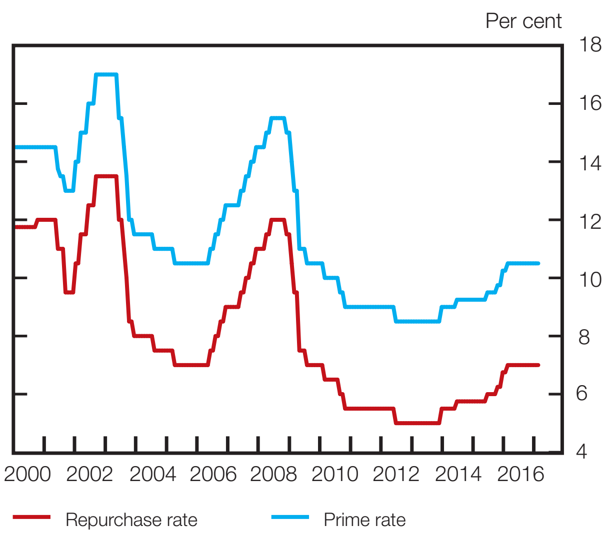
Source: IMF

Output gap with confidence bands



Source: SARB

South Africa repurchase and prime rate



Source: SARB

Monetary policy continues to be supportive of the recovery. Real interest rates remain low in historical perspective, thereby contributing to demand and helping to close the output gap. South Africa has been buffeted by severe inflation shocks since the global financial crisis, including currency depreciation and drought. To prevent a deterioration in inflation expectations, policy accommodation has been somewhat reduced since 2014. With the appreciation of the exchange rate, weaker growth last year and expected moderation in food prices, that policy adjustment has appeared sufficient to return inflation to within the upper part of the target range and to keep it there across the forecast period. The outlook, however, is unusually uncertain.

Overview of the world economy

Global growth is expected to improve from 2016's post-crisis low. A number of major emerging markets (Russia, Brazil, Nigeria) are exiting recessions, while the largest (China and India) appear capable of maintaining growth near current levels. Major advanced economies are in a cylical upturn, with the US, euro area and Japan all expected to close their output gaps over the next few years. Meanwhile, inflation rates are generally moving back towards targets, from being too high in some emerging markets or too low in many advanced economies. Despite these positive trends, the shape of the global recovery remains unclear, due in particular to policy uncertainty in the US, debt overhangs in China and persistent risks in Europe.

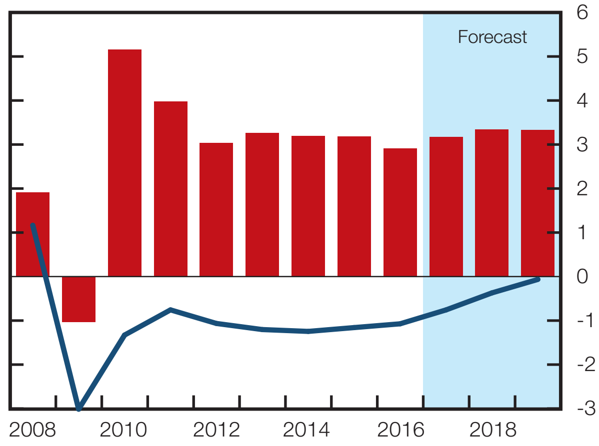
Advanced economies

Advanced economies are starting 2017 on a much stronger footing than 2016, and arguably any period since the global financial crisis. Industrial production is accelerating, drag from inventories is receding, asset price growth has been vigorous and household balance sheets are supporting stronger domestic demand. The Purchasing Managers' Index (PMI) for the Group of Three (G3) economies has improved from an average of just under 51 for the first half of 2016 to over 56 in February 2017, its highest level since 2011.[2] Accordingly, advanced economy growth is expected to reach 1.9% in 2017 and 2.0% in 2018, up from 1.6% in 2016.

The US economy should contribute significantly to this acceleration, with growth in excess of 2.0% over the next three years. The starting point is a good one. Employment gains have been healthy, averaging 190 000 jobs per month during 2016, and unemployment has fallen somewhat below 5.0% – reaching levels consistent with Fed estimates of the long-run natural rate of unemployment. The new administration has brought with it a sharp increase in policy uncertainty. Nonetheless, financial markets have welcomed the prospect of tax cuts, infrastructure expenditure and lighter financial regulation. The Standard & Poor's (S&P) 500 index and Dow Jones industrial average have gained over 10% since the US elections, achieving new highs in early March. Consumer and small business confidence indicators have also picked up, with various measures reaching their strongest levels in over a decade. Growth forecasts have improved slightly: consensus forecasts for 2017 and 2018 growth were revised up by 0.1 and 0.2 percentage points respectively in February 2017 compared with three months ago. Accordingly, the output gap – which the Congressional Budget Office puts at around -0.5% of potential GDP for 2016 – is likely to turn positive by 2018 as robust demand pushes growth above potential. These developments indicate that the Fed will be able to proceed

2 The G3 PMI includes the US, euro area and Japan. It is weighted using an average of 2014–2016 real GDP adjusted for purchasing power parity.

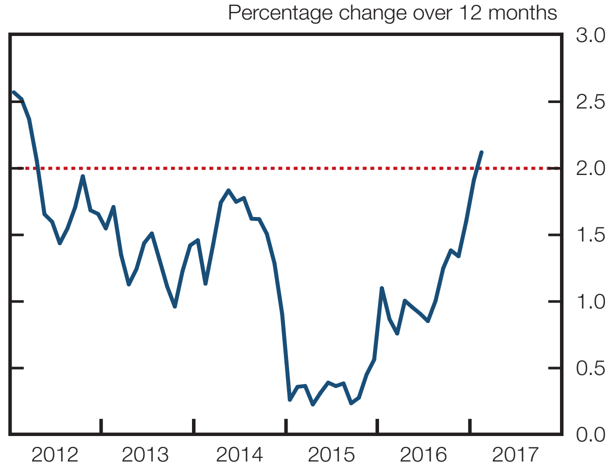
World real GDP growth*



* Trade weighted based on South African exports. Projections are based on the Global Projection Model

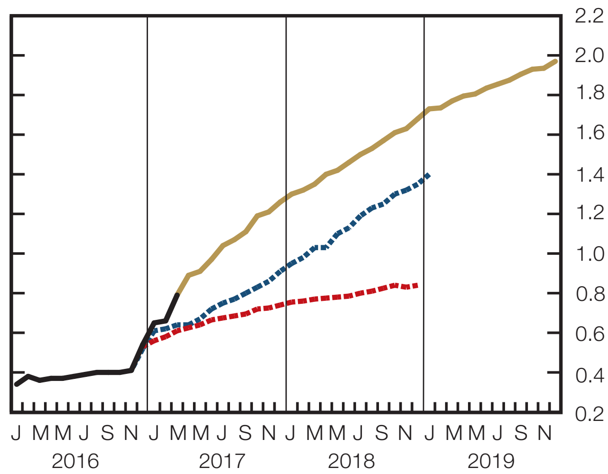
Sources: IMF and SARB

US inflation



Source: US Bureau of Economic Analysis

Federal funds rate

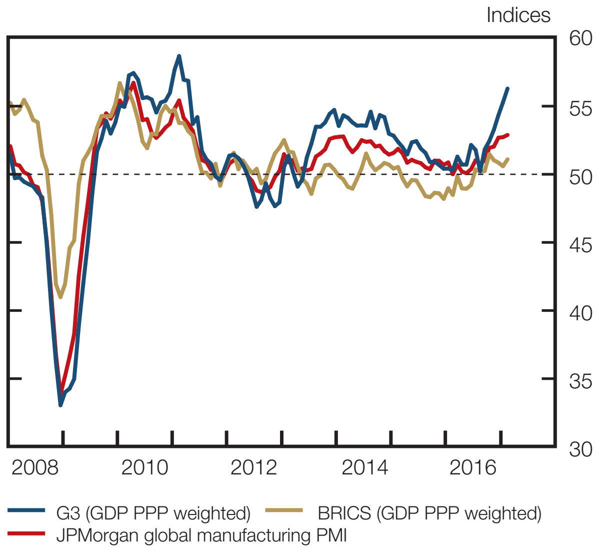


Sources: CME Group, Fed and SARB

with monetary policy normalisation, in line with its projections. Both the Fed dot plots and market expectations indicate three hikes in 2017, lifting the Fed funds rate to between 1.25 and 1.5%.

Other major advanced economies are also expected to close output gaps over the next few years. Despite lower potential growth, the degree of slack in the euro area and Japan is approximately twice that in the US, reflecting a longer period of underperformance.[3] In the euro area, significant progress has been made in lowering the unemployment rate, with the region as a whole having added 4.6 million jobs since the first half of 2013. Yet wage growth remains muted, registering a nominal increase of 1.3% in the third quarter of 2016 versus almost 3.0% pre-crisis. The number of hours worked has also not recovered to pre-crisis levels. Forecasts indicate growth of 1.6% in both 2017 and 2018, which should aid the labour market recovery. In Japan, economic growth surprised on the upside in 2016, supported by fiscal stimulus and stronger exports. Over the next two years, Japan is expected to benefit from stronger global demand and a relatively depreciated currency, as well as continued fiscal stimulus. These should permit growth rates of around 1%, slightly above that economy's potential.

Manufacturing purchasing managers' indices



Sources: IMF, JPMorgan and SARB

Emerging market economies

Emerging markets faced difficult conditions during 2016. Over the first half of the year, the BRICS[4] weighted PMI averaged 49.1, with only India's manufacturing sector still expanding. Prospects have since improved, with the PMI moving into positive territory, reaching 51.1 in February 2017. In line with this upward trend, the International Monetary Fund (IMF) expects growth in emerging markets to reach 4.8% by 2018, from 4.1% in 2016.

Recessions in several major regional players are expected to end soon. Brazilian output is projected to start growing again towards the end of 2017, having contracted throughout 2015 and 2016. Russia's economy is likely to return to growth sooner, possibly from the beginning of 2017, having also shrunk over the past two years. Nigeria slipped into recession at the start of 2016 and should similarly be growing again sometime this year. Better performance in these economies will be replicated in their respective regions. Both Latin America and the Commonwealth of Independent States are forecast to see a return to growth in 2017, with the pace of expansion rising over 2.0% by 2019. Sub-Saharan Africa is also expected to accelerate from current lows, with growth picking up from 1.6% in 2016 to slightly over 4.0% by 2019.

The direction of growth in emerging Asia depends chiefly on prospects for the two regional giants, China and India.

3 There is disagreement on the size of the Japanese output gap. The International Monetary Fund estimate the output gap at -1.7% of potential GDP in 2016, while the Bank of Japan and the Cabinet Office predict an output gap of -0.3% and -0.5% respectively in 2016Q3. In contrast, the Organisation for Economic Co-operation and Development estimates the output gap at 0.5% in 2016. On balance, estimates suggest the output gap is negative.

4 BRICS refers to Brazil, Russia, India, China and South Africa.

Rebalancing in China should cause growth to slow towards 6.0% from 6.7% in 2016. India, by contrast, is expected to retain its title as the fastest growing major economy, achieving growth rates closer to 8.0% over the next two years. The net effect of these trends is that emerging Asian growth decelerates slightly from 6.5% in 2016 to approximately 6.3% over the next two years, a rate sufficient for emerging Asia to remain the world's fastest growing region.

Improved inflation dynamics

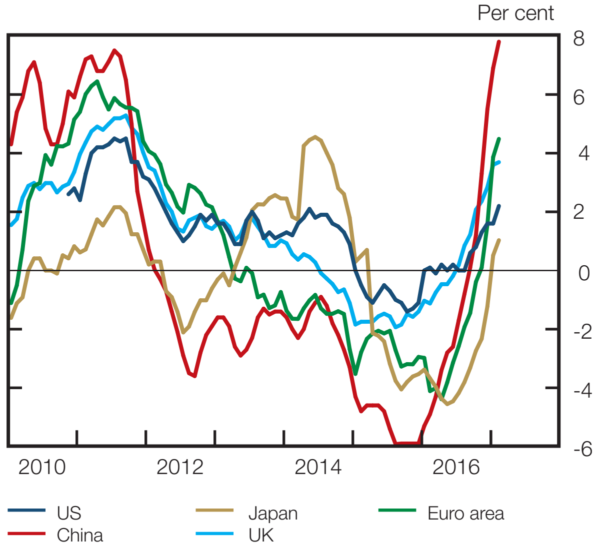
Inflation dynamics are improving across most of the world's economies. In many cases, chiefly advanced economies, this entails reflation following an extended period of price stagnation. For a range of emerging markets, by contrast, inflation is subsiding towards more desirable levels.

The reflation trend reflects higher energy and food costs alongside improving growth. Producer prices for final demand goods in the US moved from deflation for the better part of 2015 to growth of 2.2% in February 2017. In China and the euro area, where producer price deflation dates back to 2012 and 2013 respectively, price changes have also turned positive. Rising producer prices have already translated into higher consumer prices in most advanced economies, moving inflation closer to central bank targets. Advanced economy consumer prices have risen from an average of 0.3% in 2015 to 1.5% in December 2016. The IMF projects that inflation in advanced economies will reach 1.9% by 2018.

In some major economies, particularly the euro area and Japan, stronger headline inflation has not been accompanied by a rise in underlying inflation. In the euro area, core inflation (which excludes food and energy) was 0.9% in February 2017, retreating from a peak of 1.1% in October 2015. There is, however, a wide dispersion in inflation rates, with Austria and Belgium at 1.6%, the Netherlands and Germany at 1.3%, France and Ireland at 0.2% and Greece at -0.4%. In Japan, consumer inflation less fresh food remains in deflation, contracting by 0.2% on an annual basis in December 2016. Market indicators, however, have started to show rising inflation expectations in these economies, a necessary condition for a pick-up in core inflation. The five-year, five-year forward inflation expectations in the euro area and Japan have both risen by over 30 basis points since September 2016. Signs of inflation in the euro area, particularly in Germany, suggest that the onset of policy normalisation may come sooner than currently anticipated.

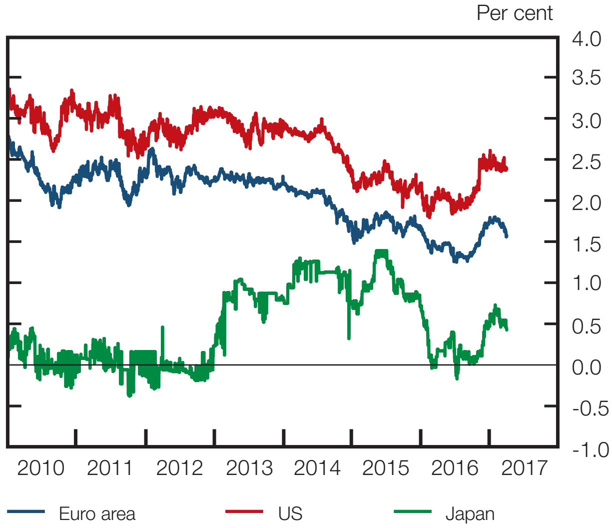
In other major economies such as the US and China, by contrast, core and headline are more closely connected. Core Personal Consumption Expenditure (PCE) inflation in the US rose to 1.9% in February 2017 from a low of 1.4% in July 2015. Rising core inflation is underpinned by accelerating average hourly earnings. Inflation expectations – again as measured by five-year, five-year forward expectations – have made comparable gains, rising to 2.4%. Survey-based measures of expectations

Producer price inflation



Source: Haver Analytics

Five-year, five-year forward inflation swap rate



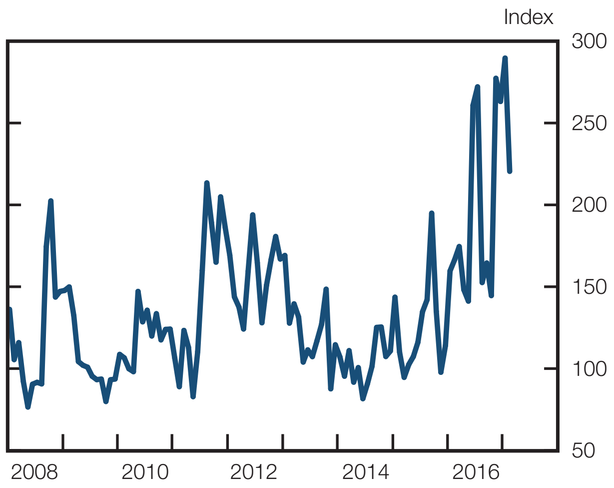
Source: Bloomberg

have not followed this upward trend, but nonetheless remain above 2%. In China, core inflation registered 1.8% in February 2017 from a low of 1.3% in February 2016. Higher inflation represents rising producer prices and improving near-term economic conditions due to policy stimulus.

Emerging markets as a whole are achieving disinflation despite rising commodity prices. Average inflation has fallen from a recent peak of 6.8% in January 2016 to 4.2% in December, and IMF forecasts suggest it will stabilise close to these levels (4.5% in 2017 and 4.4% in 2018). Disinflation has been driven predominantly by policy adjustments and currency rebounds, as well as fading supply shocks. Russia and Brazil are prominent examples of these phenomena. In Brazil, headline inflation has fallen from a peak of 10.7% in January 2016 to 4.8% in February 2017. In Russia, inflation has slowed from 16.9% in March 2015 to 4.6% in February 2017. Following substantial tightening during the inflation upsurge (with the policy rate up by 700 basis points in Brazil, and 1 150 in Russia) both these countries now have space to ease, leading to rate cuts totalling 200 basis points in Brazil and 725 basis points in Russia to date.

Heightened policy uncertainty

Global economic policy uncertainty



Source: Baker, Bloom and Davis (2016)

This relatively optimistic assessment of the global economic outlook offered in this section confronts risks on at least three fronts. First, the election of Donald Trump in the US has opened space for abrupt and wide-ranging policy changes. In its first months in office, the new administration has attempted travel bans, withdrawn from the Trans-Pacific Partnership (TPP)[5] and challenged the fairness of exchange rate policies in Japan, the euro area and China. These moves signal a more protectionist approach to trade, potentially weakening an important driver of global growth.

The new leadership in Washington has also proposed substantial investments in infrastructure as well as tax cuts for individuals and companies. The initial market responses were positive, although implementation risks have recently diluted this enthusiasm. Unlike trade restrictions, infrastructure investment and tax cuts should improve potential growth in the US and boost consumer expenditure, provided these policies do not seriously compromise debt sustainability. President Trump has also ordered a review of the Dodd-Frank Act, the centrepiece of post-crisis financial reform, arguing that it imposes excessive burdens on companies and stifles lending. Looser financial regulation may well yield short term benefits, but these gains should be set against the risks of large and persistent costs from financial crises.

5 TPP is a multilateral trade deal between 12 countries including the US, Canada, Mexico, Chile, Peru, Malaysia, Japan, Vietnam, Singapore, Australia, New Zealand and Brunei. It was aimed at lowering tariffs and improving economic relationships between member nations.

The second front is the debt overhang in China. Policymakers have chosen to maintain economic stability and higher growth at the cost of worsening imbalances. Total social financing, a broad measure of credit in the economy, has risen to 213% of GDP in 2016 from close to 100% in 2010. Policymakers have also used close to US$1 trillion of foreign reserves since mid-2014 to stabilise the exchange rate. The near-term consequences of policy stimulus are rising commodity prices to the benefit of the relevant exporting countries. However, the longer-term risks to growth are rising.

The third front is in Europe, where the 'European project' of closer political and economic union remains in crisis. The United Kingdom (UK) is in the process of negotiating the terms of its exit from the European Union (EU) (so called Brexit). The short term consequences have been relatively benign to date, with consumer confidence and a more competitive exchange rate sustaining demand in Britain, although sterling depreciation is expected to produce a period of above-target inflation. The longer term consequences are likely to be less favourable, particularly if investment suffers as firms relocate to more attractive jurisdictions. For the remaining parts of the EU, the economic spillovers from Brexit have been minimal. The more serious implications may take the form of demonstration effects, bolstering nationalist, populist figures in other European countries. In this vein, the upcoming French presidential elections might conceivably install an anti-euro, anti-Brussels leader in Paris. Italy is another prominent candidate for disruption, given the prospect of early elections in the context of continued economic underperformance and a troubled banking sector. Finally, Greece's ongoing recession and large debt burden is a persistent source of crisis summits and policy dissension.

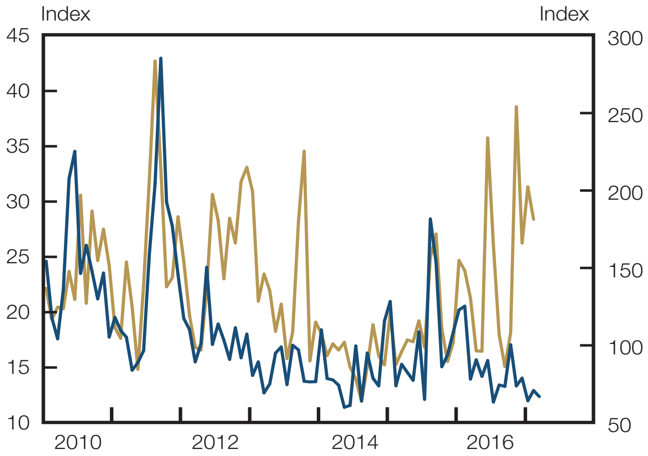
Conclusion

The global economy started 2017 on a stronger footing. Growth prospects in several major economies are improving and inflation is generally moving back towards target levels. Animal spirits, which have been dormant since the global financial crisis, appear to have revived. It is difficult to judge whether the new optimism is justified by fundamentals and risks. The policy direction in the US is uncertain but outcomes across issues such as trade and financial regulation may well prove negative for the global economy over the longer term. Policy stimulus in China has stabilised growth and benefitted commodity exporting economies, but at the cost of rapid and potentially unproductive debt growth. There are multiple flashpoints in Europe, including Brexit, French elections, the Italian banking system and Greek debt. The forecast anticipates a steady improvement in global growth over the medium term, eliminating negative output gaps, but the risks to this forecast are skewed to the downside.

Chinese economy and commodity prices

Source: Bloomberg

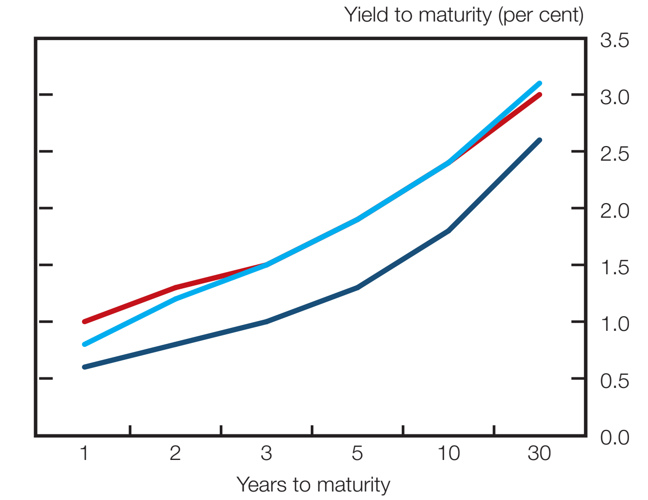
US volatility and policy uncertainty (news based)



VIX volatility index (left-hand scale)
Policy uncertainty index (news based)

Sources: Bloomberg and Economic Policy Uncertainty

Treasury nominal coupon yield curves



October 2016 December 2016 March 2017

Source: Bloomberg

MSCI emerging market and world equity indices

MSCI EM Index (left-hand scale)
MSCI World Index

Source: Bloomberg

Overview of financial markets

Global financial conditions have been exceptionally calm lately. Despite an unusually high degree of policy uncertainty, financial markets have benefitted from expectations of more corporate friendly US policies and economic stabilisation in China. These global conditions, combined with signs of domestic stabilisation, have supported prices of South African assets.

The changing relationship between Fed tightening and risk assets

As highlighted in the world economy section of this *MPR*, US economic conditions have made the Fed more confident of reaching its dual goals of full employment and price stability. Consequently, the Fed has raised rates twice in four months, with both markets and the Fed's own projections indicating two more increases this year. Coupled with proposals by the newly elected US administration for sizable tax cuts and a boost to infrastructure spending, this has led to an upward shift of the US yield curve. From around 1.6% in early October 2016, the US 10-year yield rose to a high of 2.6% on 15 December, before easing back in recent months.

In contrast with what happened during the 'taper tantrum' of 2013, the prospect of an upward adjustment in what is essentially the world's risk free rate is not proving detrimental for riskier assets. For example, since the beginning of October 2016, the S&P 500 index of US equities has risen by close to 10%, while spreads of BBB and A-rated corporate debt over US Treasuries have narrowed by 10–15 basis points.

The pattern has been the same outside the US. Global equities have rallied, with the MSCI World Index gaining 7% and the MSCI Emerging Market Index up 3%. Long-term bond yields in Germany, Japan and the UK have risen by only 10–40 basis points (although German yields benefitted from a perceived rise in political risk within the single-currency bloc). Meanwhile, emerging market debt has remained attractive to investors: JP Morgan's Emerging Markets Bond Index Plus (EMBI+) spread has narrowed by about 70 basis points from early November highs, reversing an earlier sell-off; its emerging local currency market index (ELMI) has mirrored these developments.[6]

In foreign exchange markets, the dollar has appreciated further. However, the additional gains in recent months have been relatively limited. Whereas the Fed's broad dollar index is now 22% higher than it was at the start of 2014, it is only 1.1% higher than it was at the start of November 2016. In turn, the relatively moderate appreciation of the US dollar has enabled emerging market currencies to recoup, on average, all of their losses incurred in the immediate aftermath of the US election.

As of late March, the JPMorgan Emerging Market Currency Index was slightly (0.5%) above its 1 November 2016 level.

6 The JPMorgan EMBI+ includes US dollar denominated debt (bonds or loans), issued by emerging market sovereigns and tracks total returns for actively traded external debt instruments in these markets.

Economic fundamentals help explain this decoupling of rate expectations and risk assets. Whereas in 2013 Fed tightening could have been interpreted as premature, it is now more clearly justified by an improved outlook for growth and inflation – with a range of commentators even suggesting the Fed has fallen behind the curve. Furthermore, the macroeconomic imbalances which distinguished vulnerable emerging markets during the 'taper tantrum' have in most cases moderated. Finally, the adverse scenarios which preoccupied financial markets earlier in 2016 have not materialised. In particular, there has been no aggressive devaluation of the Chinese renminbi. Furthermore, the UK decision to leave the EU has not yet produced the negative macroeconomic consequences which many observers feared, although the terms of Brexit remain unknown. The conclusion is that normalisation of US monetary policy is a more benign prospect now than it was four years ago.

Mixed fortunes for South African assets

Local financial market developments have not followed a consistent trend. Much of the past year was characterised by more positive perceptions of South African assets in the context of a favourable global environment. By contrast, the trend has recently reversed following the cabinet reshuffle and the subsequent credit ratings downgrade by S&P.

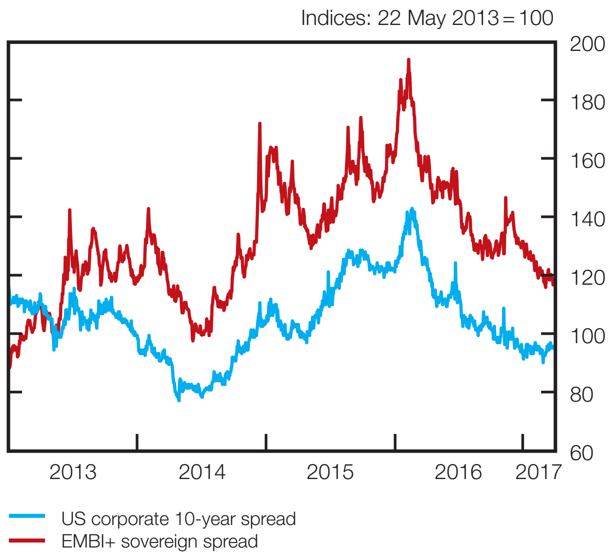
The South African rand initially out-performed most of its emerging market peers. From January 2016 to mid-March 2017, it appreciated by 21.7% against the US dollar and 22.4% on a trade-weighted basis. However, the currency resumed its depreciating trend late in March as speculation mounted that the Finance Minister would be replaced. The rand has since become the worst performing currency compared to its emerging market peers.

South African bonds have echoed the rand's fortunes, starting with a comparatively strong performance but finishing relatively weakly. The yield on the benchmark R186 bond, maturing in 2026, stood at 8.5% at the start of March. By early April it had breached the 9.0% level, while the spread over its US equivalent had widened by 67 basis points.

The initial gains for South African assets reflected a more positive turn in the South Africa investment narrative. This was based on a range of factors, including a narrower current account deficit, evidence of an upward turn in the economic cycle and moderating inflation which supported real yields. Furthermore, the 2017 Budget confirmed that consolidation plans were ongoing despite the challenges of disappointing revenue growth. However, some of the positive impact from these earlier developments was eroded by the policy uncertainty introduced by the reshuffle.

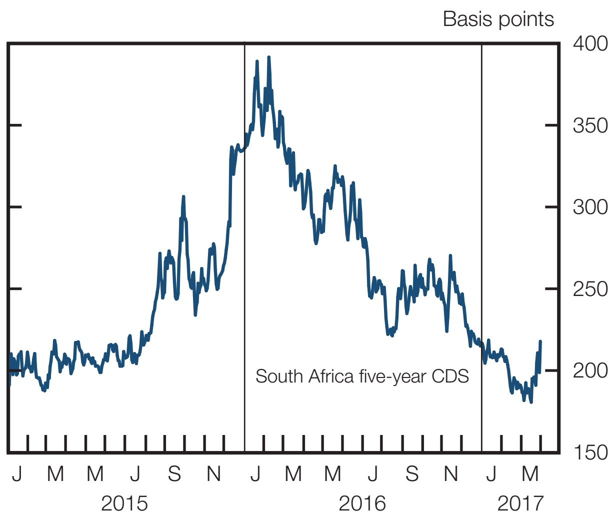
In contrast to both local bonds and the rand, South African equities have tended to stagnate throughout the past year, under-performing both global and emerging-market equity indices. As of 3 April, the JSE Limited (JSE) All-Share Index (Alsi) was 1.2% lower than on 1 October 2016, with a brief New Year rally having proved short-lived. In part, the appreciation of the rand has weighed on the equity market, in particular

EMBI+ spread and US corporate 10-year spread



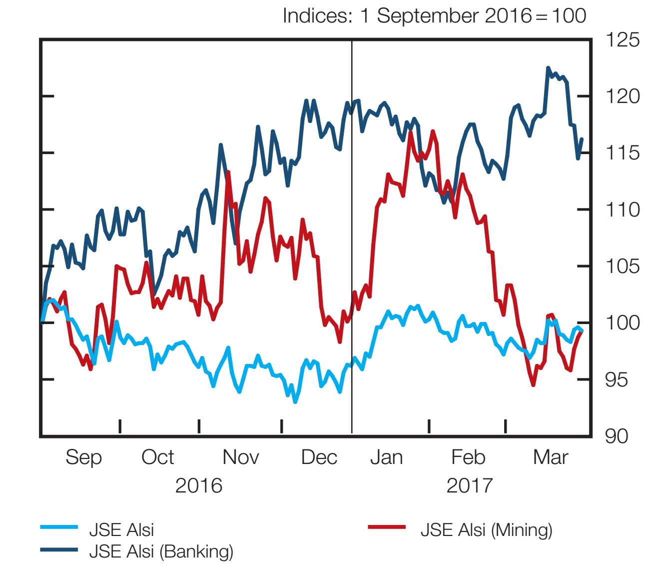
Source: Bloomberg

South Africa credit default swap



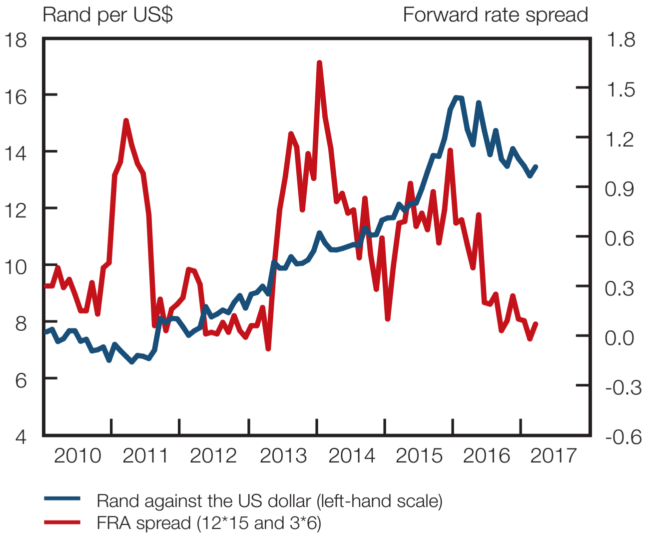
Source: Bloomberg

JSE All-Share, mining and banking indices



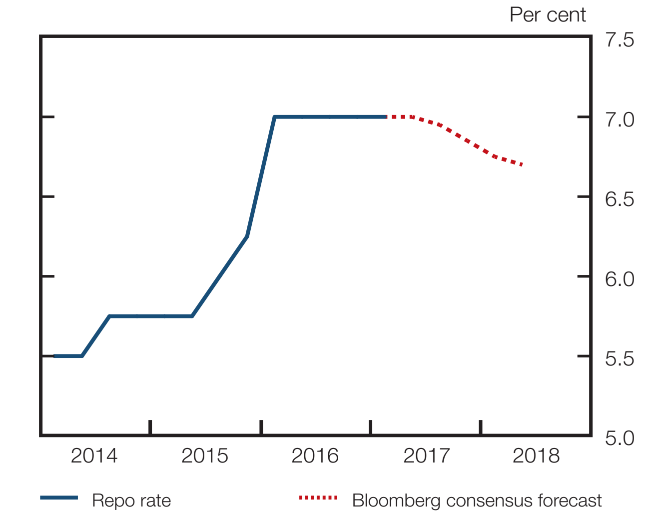
Sources: Bloomberg and SARB

Forward rate spread and exchange rate of the rand



Source: Bloomberg

Repo rate expectations



Sources: Bloomberg and SARB

shares of companies such as mining firms which generate a large portion of profits overseas and which investors treat as rand hedges. At the same time, investigations into alleged colluding practices of banks in their foreign exchange trading businesses have slightly depressed banking stocks.

Short term interest rates

Exchange rate developments have helped shape expectations of future domestic policy rate movements. As of mid-March, Bloomberg surveys of private sector economists indicated interest rate cuts, with the average expectation for the repo rate down by 25 basis points to 6.75% for the first quarter of 2018. Similarly, market indicators have until recently pointed to lower rates. By mid-March forward rate agreements were fully pricing in at least one repo rate reduction in 2018. Towards the end of March, however, these measures moved back towards no rate changes, in line with renewed rand depreciation, and by early April had shifted to indicating approximately one more repo rate increase within the next 12 months.

Significant risks threaten financial market improvement

Both domestic and external risk factors could prompt a correction in financial markets in coming quarters. In the US, upside inflation surprises could force a faster pace of interest rate hikes – especially if the new administration's proposed tax cuts provide a sizable boost to demand in an environment of reduced slack. This could restore the link between Fed tightening and weakness of riskier assets.

At the same time, overheating in segments of China's economy – especially the property market – may force authorities to tighten policy more aggressively, with potentially negative consequences for global market sentiment and commodity prices. Finally, within European markets, elections in France and Germany in 2017 may show a further rise in anti-EU sentiment. While opinion polls currently do not point to the formation of governments that support abandoning the euro, this risk could at some point prove highly disruptive to the orderly functioning of global financial markets.

On the domestic front, the biggest risk now stems from additional rating downgrades, especially as S&P kept a negative outlook on its sovereign ratings. While local currency ratings remain investment grade at present, further downgrades (by one notch from S&P and two notches from Moody's) would see South Africa excluded from the Citigroup World Government Bond Index (WGBI).[7] This would require some foreign investors to sell their domestic bonds. Rising uncertainty about the future direction of economic policy could prompt capital outflows in anticipation of such downgrades. These outflows would, in turn, raise borrowing costs and place the rand under renewed downward pressure, potentially accelerating inflation.

7 Fitch ratings are not used for WGBI inclusion.

Overview of the real economy

South African GDP growth has eased steadily over the past five years. It is likely 2016 was the low point, with output expanding just 0.3%, compared to 1.3% in 2015 and forecasts of 1.2% in 2017, 1.7% in 2018 and 2.0% in 2019. The projected improvement in growth over the medium term stems from a mild recovery in investment as well as improved household consumption, supported by smaller contributions from net exports. Potential growth, the rate of expansion possible without accelerating inflation, remains below 2.0% over the medium term, well below historical averages.

Expenditure components* of real gross domestic product

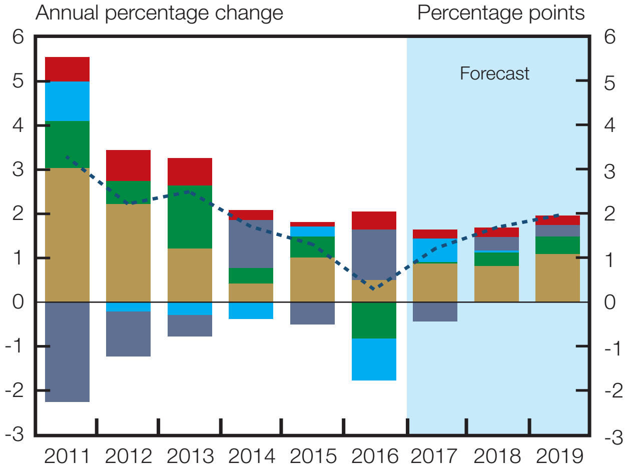
Annual percentage change

	Actual		Forecast		
Components	2015	2016	2017	2018	2019
Household consumption.....	1.7	0.8	1.4	1.3	1.8
	1.0	*0.5*	*0.9*	*0.8*	*1.1*
Government consumption..	0.5	2.0	1.0	1.0	1.0
	0.1	*0.4*	*0.2*	*0.2*	*0.2*
Investment..........................	2.3	-3.9	0.2	1.6	2.0
	0.5	*-0.8*	*0.0*	*0.3*	*0.4*
Other..................................	*0.2*	*-1.0*	*0.5*	*0.0*	*0.0*
Exports..............................	3.9	-0.1	0.2	3.8	3.8
Imports..............................	5.4	-3.7	1.6	2.7	2.8
Net exports	*-0.5*	*1.1*	*-0.4*	*0.3*	*0.3*
GDP..................................	1.3	0.3	1.2	1.7	2.0

* Percentage points contributions of expenditure components to growth in real GDP are in italics

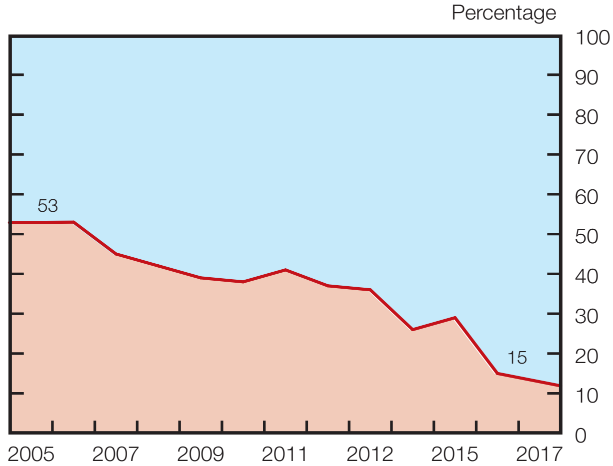
Sources: SARB and Stats SA

GDP and its expenditure contributors



Sources: SARB and Stats SA

South Africa percentage ranking and share of countries growing faster/slower than SA



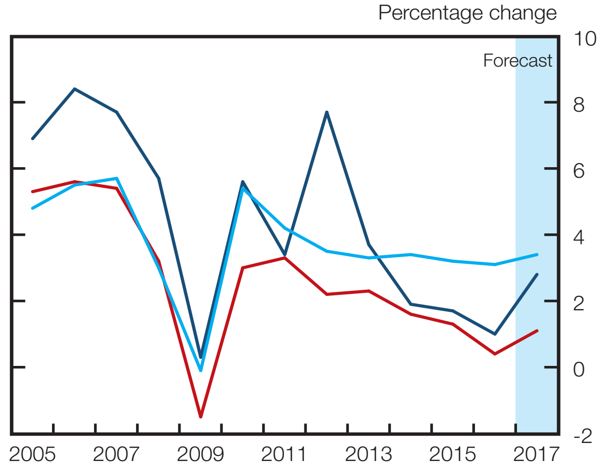
Sources: IMF, SARB and Stats SA

Low growth in context

Although recent fluctuations in South Africa's growth rate have stemmed from exogenous shocks, including drought, the underlying trend remains very subdued. As noted in previous *MPRs*, growth close to 1% compares unfavourably with longer term South African growth averages of around 3%. It is also distant from the National Development Plan aspiration of over 5%.

International comparisons provide another perspective on South Africa's weak growth. Although the pace of world economic expansion slowed in the aftermath of the global financial crisis, South Africa has decelerated more abruptly. In the years preceding the crisis, South Africa ranked slightly above the global median for growth. In both 2004 and 2005, for instance, it was growing more rapidly than 54% of countries. This ranking has slipped steadily after the crisis, with South Africa falling into the bottom third of countries by 2014; in 2016 South Africa is projected to have outgrown just 15% of countries. Global growth is anticipated to accelerate in 2017, so South Africa's own growth acceleration does not improve its ranking.[8]

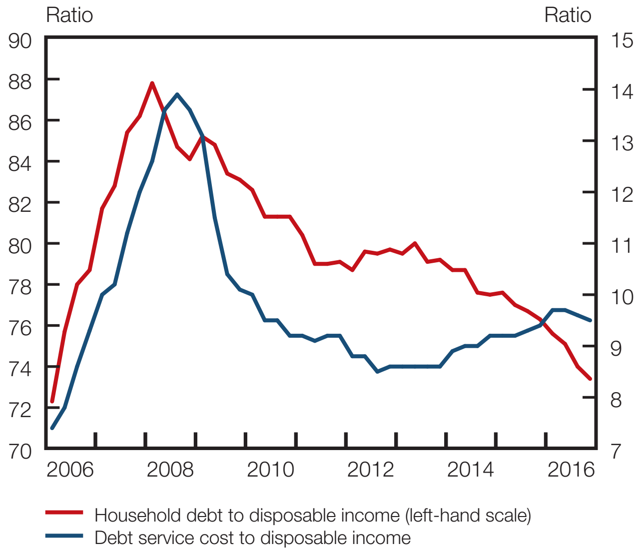
Real GDP



Sources: IMF, SARB and Stats SA

8 2016 and 2017 rankings are based on the SARB growth forecasts. The IMF's forecasts for South Africa are slightly lower.

Household debt and debt service costs



Source: SARB

There are a range of factors underpinning South Africa's post-crisis growth slowdown. Some are relatively deep-rooted, such as household debt overhangs and declining commodity prices. Others have intervened more unexpectedly, including drought and shocks to confidence. The scale of South Africa's slowdown, both in absolute terms and relative to other economies, demonstrates that these challenges have been both severe and concentrated. It is also becoming clearer, however, that the slowdown has helped effect a partial rebalancing of the economy. In particular, fiscal consolidation, household deleveraging and smaller current account deficits provide a sounder foundation for future growth. Furthermore, lower inflation will boost spending power and help moderate long term borrowing costs.

The role of the primary sector

Extremely low growth in 2016 largely reflects underperformance in the primary sector, with both agriculture and mining contracting. Absent these shocks, growth in 2016 would probably have been over 1%. In turn, a rebound in the primary sector helps explain the growth acceleration anticipated for 2017. For agriculture, this is a result of rainfall normalising following two years of drought across much of the country. The agricultural sector (including forestry and fishing) is relatively small – around 2% of the total economy – but it contracted sharply in 2016, falling by 7.8%. Its recovery in 2017 is likely to add around 0.3 percentage points directly to total growth for the year. The mining sector is larger than the agricultural sector, at around 7.0% of GDP. It shrank by 4.7% in 2016, but is expected to rebound in 2017, growing more than 2%, supported by inventory restocking and the uptick in commodity prices. Its recovery should directly contribute about 0.2 percentage points to annual growth.

Household consumption

Real household consumption growth has been mediocre in historical perspective, averaging just over 1.0% for the past three years, versus 3.4% on average since 1994. It has nonetheless outpaced overall GDP growth in recent quarters and is expected to do so again in 2017. This is mainly due to ongoing real wage gains which are boosting disposable income. Households will also benefit from declining inflation, particularly for food and fuels. Furthermore, wealth effects should become supportive later in the forecast period as asset prices recover from a period of stagnation. By contrast, other factors are constraining households. Tax increases announced in the 2017 Budget will cut into disposable incomes. Employment is projected to decline until the middle of 2019, due to a difficult environment for job creation without sufficient offsetting wage moderation. Finally, debt levels remain quite high and households are expected to continue deleveraging.

The latest data indicate a slight downturn in debt service costs, as a proportion of disposable income, reflecting stable interest rates alongside declining debt burdens. Indeed, debt stocks relative to incomes have now fallen to levels last seen in early 2006. This development favours the long term financial security of households and should, with time, support stronger credit growth. Over the medium term, however, households are unlikely to achieve debt or income levels adequate to drive more rapid economic growth.

Household income levels

Annual percentage change

	Actual		SARB forecast		
	2015	2016	2017	2018	2019
Real disposable income.............	2.5	1.2	1.4	1.2	1.8
Real wealth................................	1.6	-0.4	0.7	1.7	1.8
Employment	0.0	-0.2	-0.8	-0.4	0.1
Real household consumption	1.7	0.8	1.4	1.3	1.8

Source: SARB

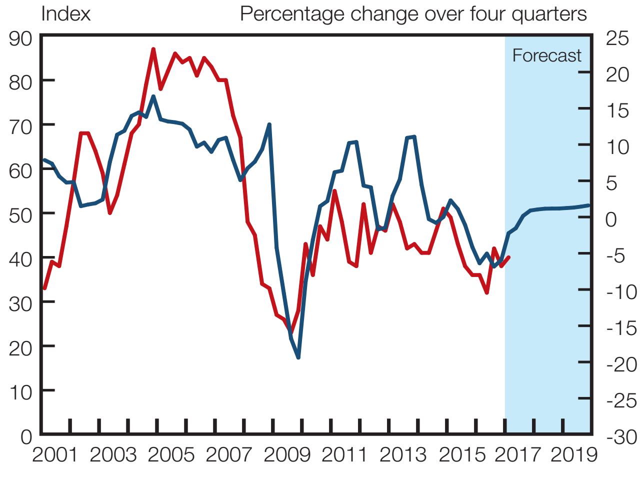
Investment

Investment was the worst performing component of GDP in 2016 – contracting by 3.9% over the year – and is forecast to lag again in 2017, growing by just 0.2%. It is expected to rebound in 2018 and 2019, becoming the fastest growing portion of the economy.

The ongoing investment slump has two components. The first is weak private sector investment. This is broadly explained by a collapse in business confidence, which has been subdued throughout the post crisis period but deteriorated especially markedly in recent years. During this period, the electricity constraint became binding with the advent of load shedding. Business sentiment was further undermined by the persistent threat of a sovereign credit ratings downgrade to below investment grade, threatening both higher long term borrowing costs and the reputational burden of 'junk status'. Finally, confidence suffered from acute political shocks, also visible in indicators such as credit default swaps and survey-based indicators of policy uncertainty. The forecast implies a recovery in confidence which strengthens private investment, generating growth of 1.1% in 2018 and 1.4% in 2019. But that recovery is far from assured.

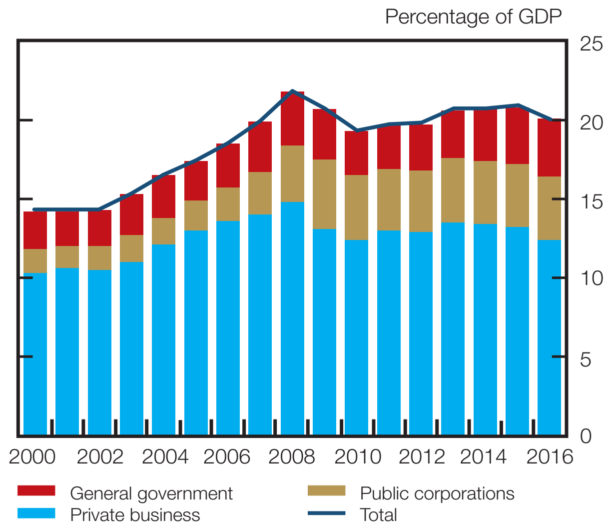
The second component of the recent investment slump is an unexpected contraction in public-sector investment. This was mainly driven by state-owned companies (SOCs) (of which Eskom and Transnet account for about 80%) which continue to underspend and delay investment plans. For instance, in 2015/16 SOCs spent R20.9 billion less than what was expected at the time of the 2015 Budget. However, the most recent estimates indicate that there will be a return to growth in SOC investment spending in nominal terms. Unfortunately, a portion of higher spending will not translate into real gains given cost overruns in a variety of projects. SOC spending is expected to be slower over the forecast period, relative to recent years, as corporations are at or near the end of major projects (such as the Medupi and Kusile power plants).

Business confidence and real fixed investment (private business)



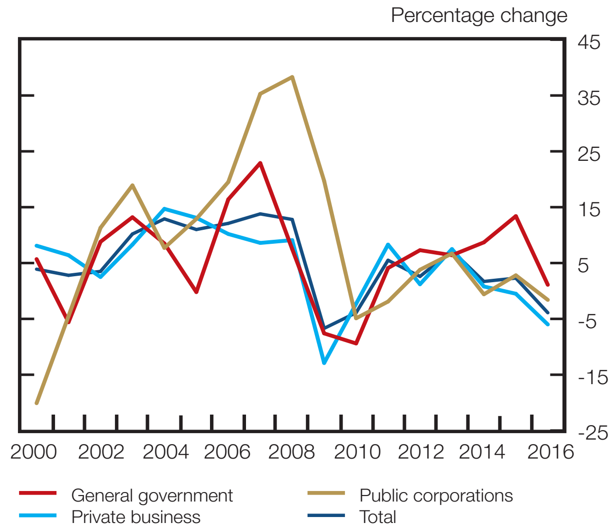
Sources: RMB/BER and SARB

Fixed investment



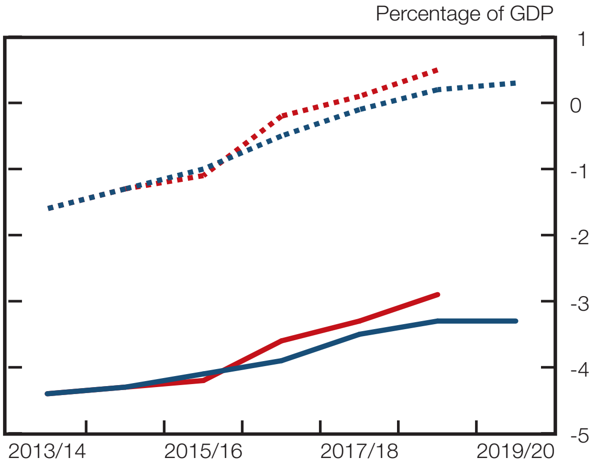
Source: SARB

Fixed investment growth



Source: SARB

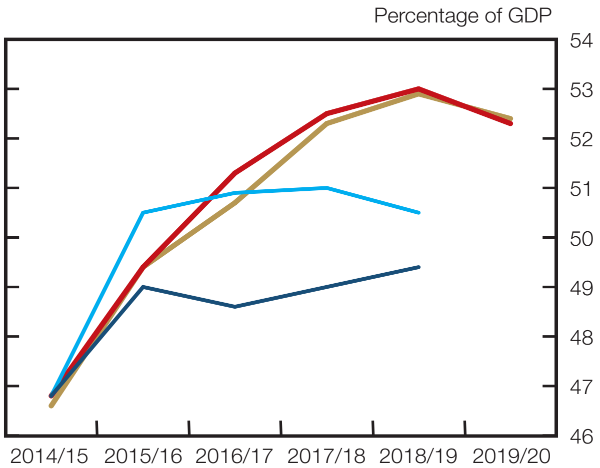
Government balances



Main primary balance – 2017 Budget
Main primary balance – 2016 Budget
Main budget balance – 2017 Budget
Main budget balance – 2016 Budget

Source: National Treasury

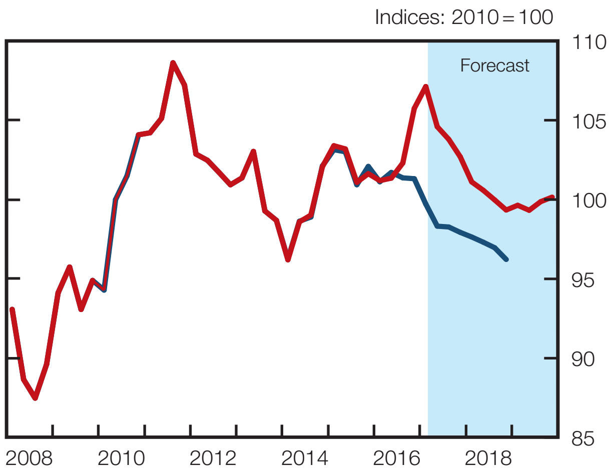
Gross debt



MTBPS 2015
MTBPS 2016
Budget 2016
Budget 2017

Source: National Treasury

South African terms of trade



November 2016 MPC
March 2017 MPC

Source: SARB

General government also contributed to the weakness of public investment, registering slightly positive growth in 2016, well below previous levels. This appears to reflect one-off factors, including a base effect from 2015. It is not simply explained by fiscal consolidation because investment budgets have been protected (although at lower levels of government, funds may nonetheless have been diverted into consumption). General government investment is expected to pick up in 2017 and 2018, leading the overall recovery in public investment.

Investment (March 2017 forecast)

Percentage of GDP

	Actual			SARB forecast		
	2014	2015	2016	2017	2018	2019
General government	8.7	13.4	1.1	4.0	3.0	4.0
Public corporations	-0.6	2.8	-1.6	-0.5	1.5	2.0
Private business enterprises	0.8	-0.5	-6.0	-0.7	1.1	1.4
Total	1.7	2.3	-3.9	0.2	1.6	2.0

Source: SARB

Government consumption and fiscal dynamics

Perhaps unexpectedly, government consumption expenditure was the fastest growing component of GDP in 2016, expanding by 2.0%, up from just 0.5% in 2015. However, this uptick is mostly explained by hiring for the 2016 local government elections, and will therefore not be sustained. Accordingly, government consumption is projected to moderate over the forecast period, growing at a stable 1.0% between 2017 and 2019.

These growth rates are lower than they were in the early post-crisis years, owing to the fiscal consolidation programme required to rein in public debt growth. They nonetheless entail small positive contributions to overall GDP growth across the forecast horizon, given that government spending continues to rise in real terms. The implication is that fiscal policy remains relatively supportive of demand. As a result, the main budget deficit is expected to narrow slightly over the medium term and a primary surplus is now only expected in 2018/19, one year later than planned in the 2016 Budget. The debt peak is now anticipated at nearly 53% of GDP in 2018/19 – versus, for instance, the 2016 Budget forecast of 51% in 2017/18. Estimates of the structural budget balance, which excludes cyclical fluctuations in tax revenue and expenditure, suggest the structural deficit is around 3% of GDP.

Net exports and the balance of payments

Net exports are expected to subtract from growth in 2017, following a relatively strong 2016 performance. They recover in 2018 and 2019, contributing approximately 0.3 percentage points to growth in each year. Exports are likely to benefit from stronger world growth as well as favourable commodity prices. However, these factors are offset in the forecast by a less depreciated outlook for the exchange rate, which limits competitiveness, as well as higher imports from increased investment (a category which tends to be import-intensive).

Current account* (March 2017 forecast)

Percentage of GDP

	Actual		SARB forecast		
	2015	2016	2017	2018	2019
Current account	-4.4	-3.3	-3.2	-3.9	-4.0
	-4.3	*-4.0*	*-4.2*	*-4.4*	
Trade and services	-1.1	0.1	0.3	-0.7	-0.5
	-1.0	*-0.3*	*-1.1*	*-1.4*	
Income and transfers account	-3.3	-3.4	-3.4	-3.2	-3.5
	-3.3	*-3.6*	*-3.1*	*-2.9*	

* September 2016 MPC forecasts in italics

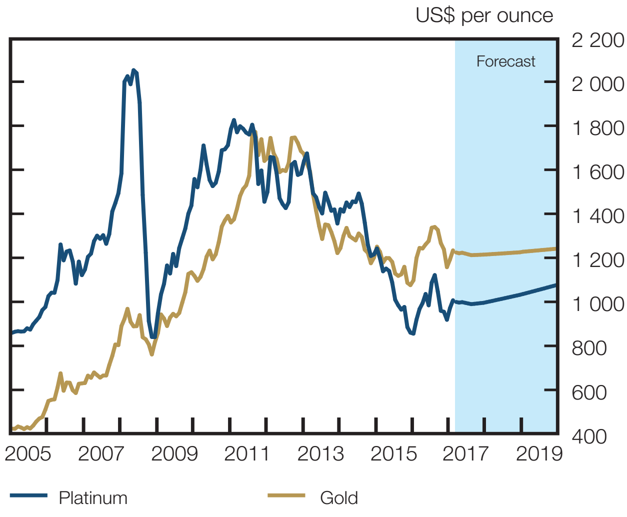
Source: SARB

The balance on the current account was previously anticipated to reach its narrowest point in the cycle during 2016. However, current account narrowing is now projected to continue into 2017, with the deficit reaching -3.2% of GDP this year. Thereafter the deficit widens somewhat to -3.9% in 2018 and -4.0% in 2019.

The improvement in the current account outlook is premised on more favourable terms of trade, with the peak occurring in the first quarter of this year. Prices for base metals and coal have been very buoyant lately, but these gains are not expected to persist over the forecast period as longer term fundamentals start to outweigh the short term momentum in prices. By contrast, precious metals are expected to trend modestly higher as investors seek safe haven assets to hedge against policy uncertainty and rising global inflation. Meanwhile, oil prices are likely to be roughly stable at current levels. As a result, South Africa's terms of trade are expected to reach their highest level in six years – and their second highest level on record – early in 2017, before trending moderately lower in 2018 and 2019.

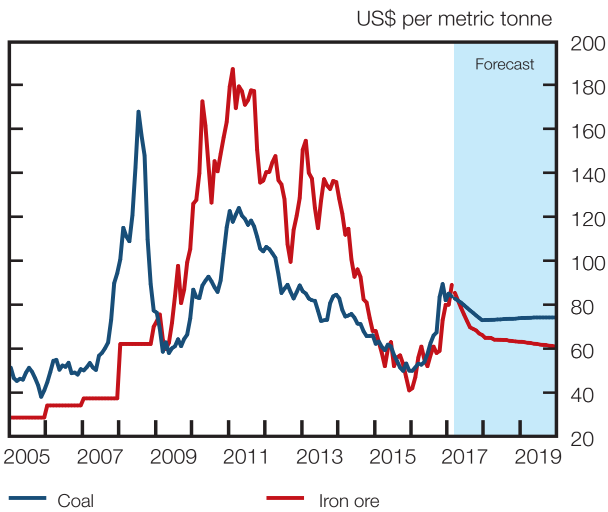
In comparative perspective, it is unusual for a country to be running a current account deficit of 3–4% of GDP with growth under 1%. In South Africa, this is not simply a problem of imports staying too high and exports too low. Rather, the trade balance of the current account has adjusted significantly, from around -2% of GDP in 2013 to 0.1% in 2016. Instead, the persistent deficit on the current account is a consequence

Precious metals prices



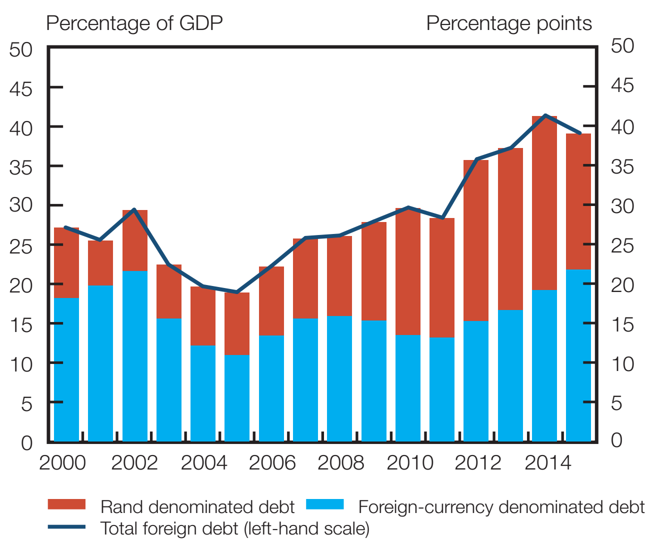
Sources: Bloomberg and SARB

Industrial commodity prices



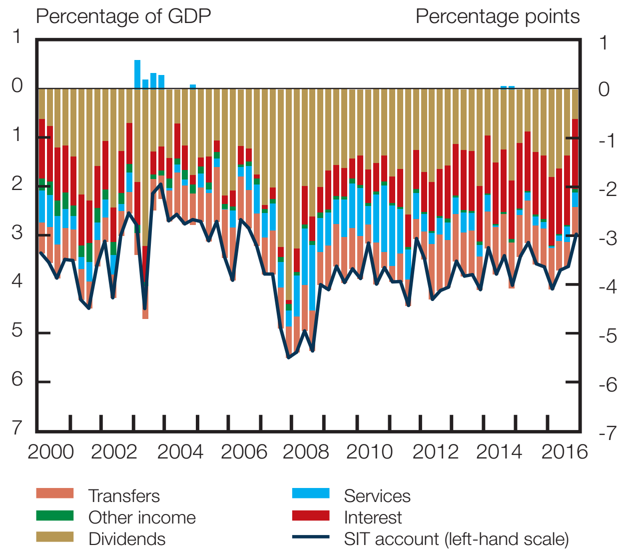
Sources: Bloomberg and SARB

Foreign debt of South Africa



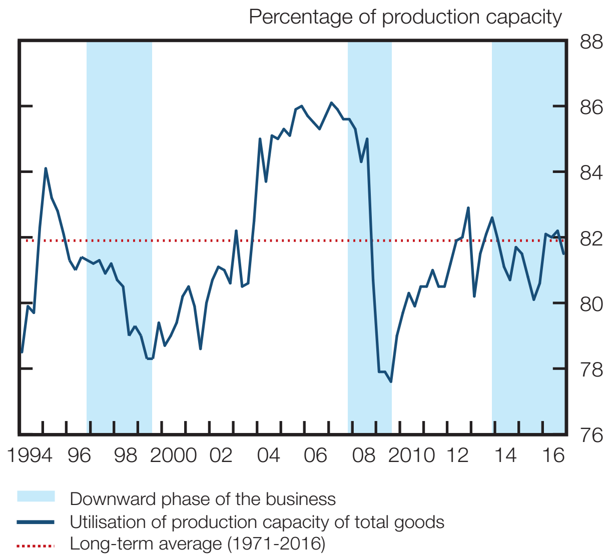
Source: SARB

Services, income and transfer account components



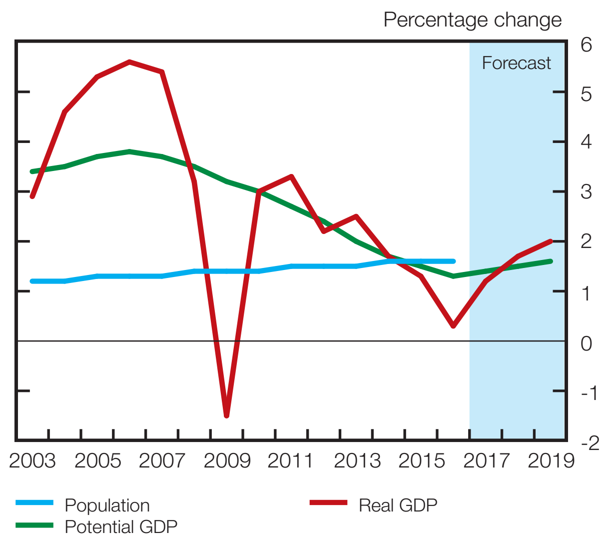
Source: SARB

Manufacturing production capacity utilisation



Sources: SARB and Stats SA

Real GDP, potential GDP and population growth



Sources: SARB and Stats SA

of the service, income and current transfers account, which typically registers deficits in excess of 3% of GDP. (The average since 2011 is -3.7% of GDP, with a standard deviation of 0.4 percentage points.) Although the services component of this account has come into balance – roughly in line with the trade account – current transfers have remained between -0.5% and -1.0% of GDP, mostly due to Southern African Customs Union (SACU) transfers. Furthermore, net interest payments under the income account have been rising, reflecting the growth in South Africa's total foreign debt to around 40% of GDP, and now stand at around 1.4% of GDP. The forecast anticipates that the income and transfer payments deficit will persist across the medium term at a little more than 3% of GDP. As usual, the scale of the current account deficit therefore chiefly reflects this component, even as swings in the trade account explain most of the variations in the overall current account.

Potential growth and the output gap

Since the previous *MPR,* published in October 2016, potential growth and the output gap appear to have been broadly stable. There have been minor downward revisions of short term potential, to a low of 1.3% for 2016, but the estimate for 2018 remains 1.5%. The output gap continues to be negative, with most of the accumulated shortfall between potential and actual output coming from late 2015 and 2016. The gap is expected to widen slightly in 2017, given growth of 1.2% versus potential of 1.4%. It then begins to narrow gradually over the following two years, and is almost closed by the end of 2019.

Output gaps are unobservable. This makes them difficult to quantify, and their interpretation is a perennial source of controversy. At present, there is little or no evidence that the economy is overheating. Manufacturing capacity utilisation is close to historical averages. Credit growth is subdued, with lending to households declining in real terms. Furthermore, it is unlikely that potential growth will be revised much lower, below even the growth rate of the population. Nonetheless, the output gap may be overstated. To the extent that it reflects primary sector weakness – recall that the current output gap is almost entirely a legacy of the past year and a half, in which the primary sector underperformed – it may be a poor guide for monetary policy. (Because output in the primary sector is strongly affected by sector specific factors, such as rainfall, some central banks exclude it from their output gap estimates.[9]) Furthermore, the output gap has been consistently wrong in real time, with estimates changing after the fact by as much as 4% of potential GDP. In recognition of this problem, the SARB's output gap estimates are reported with error bands to convey uncertainty. Research to refine these estimates is also ongoing.

9 See for instance Central Bank of Chile, 2015. 'Potential GDP, the output gap and inflation', Monetary Policy Report p. 35.

Conclusion

Over the forecast period, which stretches to 2019, growth is expected to improve slightly from 2016 lows. The largest portion of this growth comes from household consumption, with investment and net exports making positive contributions in 2018 and 2019. Government consumption is projected to grow marginally in all three forecast years, fiscal consolidation notwithstanding. The economy's fundamentals are becoming less unstable, which helps explain why growth is accelerating again. Growth is nonetheless weak by almost any standard.

Box 1 An asymmetric Phillips Curve?

The Phillips Curve describes the relationship between inflation and some measure of economic slack (originally unemployment, but often the output gap). It is both one of the most foundational and most contentious concepts in modern economics. In its Keynesian heyday, it was interpreted as a trade-off. Policymakers were advised to choose their preferred mix of the two variables, with more inflation providing less unemployment and vice versa. The stagflationary experiences of the 1970s, however, showed that rising inflation and rising unemployment could go together. Meanwhile, the theoretical underpinnings of the Phillips Curve were weakened by new arguments that the trade-off should be temporary and unstable. Over time, price and wage setters would incorporate expectations of rising inflation in their demands. Prices would then rise with no change in output.

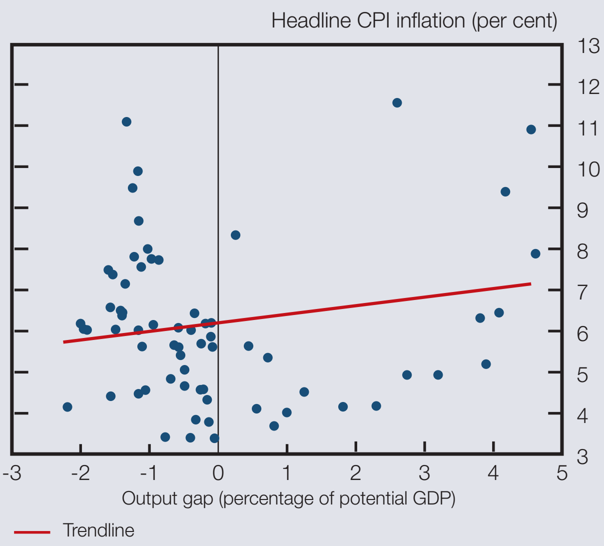
The literature on the South African Phillips Curve is simultaneously extensive and inconclusive. Fedderke and Liu (2016) point out that for all the interest in the subject, the relationship is hard to identify empirically.[1] There are also better predictors of inflation than the output gap, especially wages. However, the relationship must exist in some form if interest rate changes are to raise or lower demand and therefore affect inflation. The problem is describing the relationship accurately. Kabundi, Schaling and Some (2016) have provided one important contribution by showing that the Phillips Curve in South Africa is time-varying.[2] The relationship was quite weak in the 1990s, stronger in the 2000s, and weaker again after the global financial crisis. More recent work provides a complementary insight: the Phillips Curve in South Africa may be non-linear, with a much stronger relationship when the economy is overheating than when it is underperforming.

This asymmetric Philips Curve emerges from inflation data which have been econometrically corrected for supply shocks (which would affect prices independent of demand). Inflation responds strongly when the output gap is positive, but less so when demand is weak and the output gap is negative.

1 Fedderke, J and Liu, Y. 2016. 'Inflation in South Africa: an assessment of alternative inflation models'. *SARB Working Paper* 16(5).

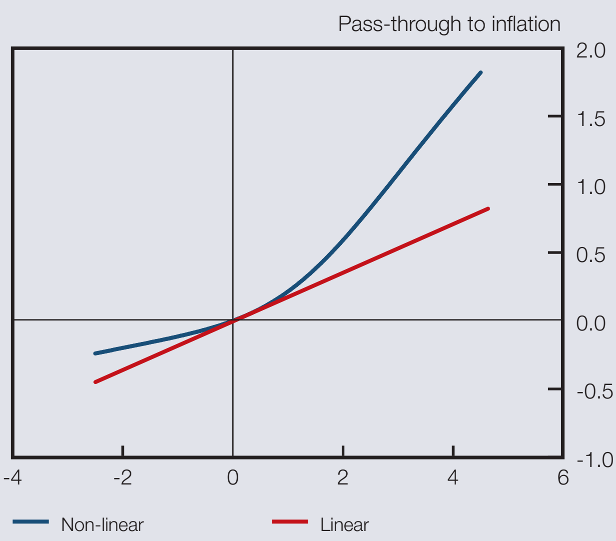
2 Kabundi, A, Schaling, E and Some, M. 2016. 'Estimating a time-varying Phillips Curve for South Africa'. *SARB Working Paper* 16(5).

The output gap and inflation



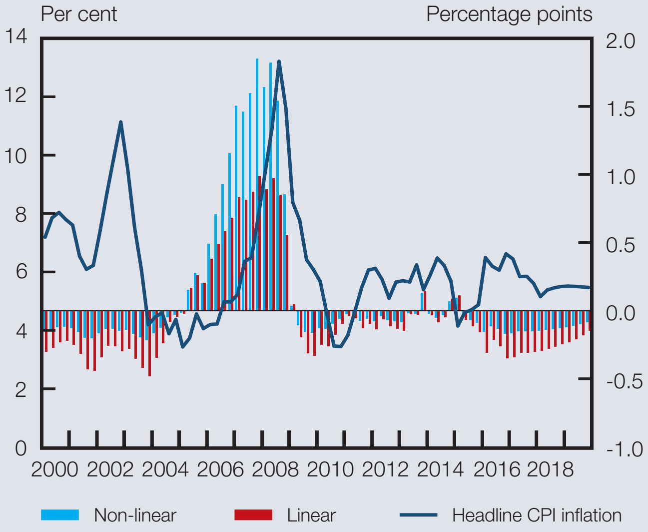
Sources: SARB and Stats SA

The output gap and pass-through to inflation



Source: SARB

Direct impact of output gap on inflation based on Phillips Curve specification



Sources: SARB and Stats SA

By ignoring this distinction, forecasts will tend to under-predict inflation when the economy is operating above potential. Where demand is already weak, forecasts will also underestimate the policy adjustments required to reduce inflation. This last point presents a difficult policy problem, because it implies a worse disinflation/output trade-off. In such circumstances, policymakers may prefer to rely more heavily on other transmission mechanisms, especially communication, to achieve their inflation targets. This does, however, require that policymakers have credibility, meaning they should be seen as willing and able to meet their targets over time.

Inflation developments and outlook

Headline inflation is currently outside the 3-6% target range, but is expected to moderate to 5.4% in 2018 and 5.5% in 2019. Food and oil price shocks provided the nudge to inflation which pushed it over 6%. Underlying inflation, however, has been elevated, meaning even relatively small shocks would have been sufficient to push inflation above the target range. Core inflation is expected to decline from its peak in December 2016, benefitting from the more appreciated level of the exchange rate. Services inflation nonetheless remains sticky around 6%, in line with inflation expectations, which prevents core from falling more markedly and keeps headline inflation in the upper portion of the target range.

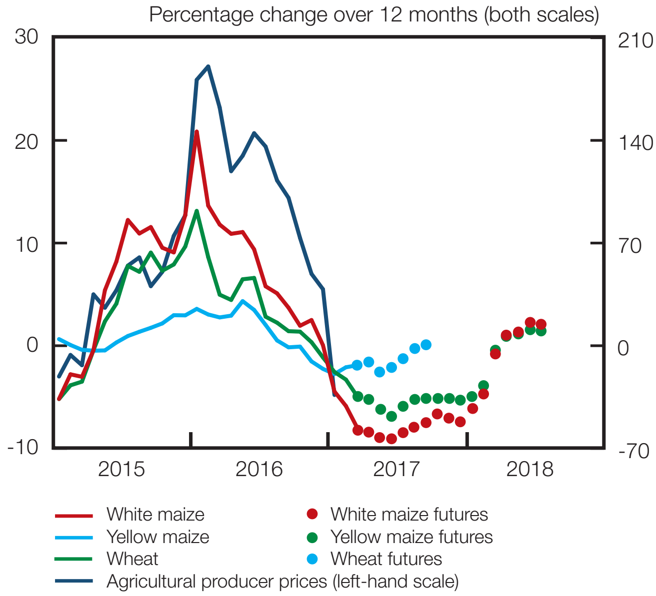
Food prices

Food and non-alcoholic beverages (NAB) inflation averaged 10.6% in 2016, versus a post-crisis average of 6.8%, contributing 1.6 percentage points to headline inflation. The peak came in the final quarter of 2016, with prices rising 11.7% (slightly below the 12.3% forecast published in the October 2016 *MPR*). Food and NAB inflation is expected to average 7.4% this year, adding 1.3 percentage points to headline inflation (although this would have been 1.1 percentage points with the previous consumer price index weights), followed by 5.2% in 2018 and 5.5% in 2019.

Weather conditions have improved across much of the country. February was an exceptional rainfall month, with South African dams regaining two years of losses in just a few weeks. Early indications from government's Crop Estimates Committee suggests that the maize harvest will be 14.3 million tons in 2017, back near the record levels achieved in 2014 and about double the 2016 harvest. The significant gap that opened up between white and yellow maize prices from early 2015 has disappeared. Maize spot and futures prices have both declined, with futures prices below current spot prices and only rising again from later in the year. Wheat production is also responding positively, rising to a five-year high. Lower grain prices will benefit the bread and cereals component of food and NAB inflation. Combined with the high base created in 2016, inflation in this category will likely moderate to 1.1% by the final quarter of 2017, before picking up to 4.8% in 2018.

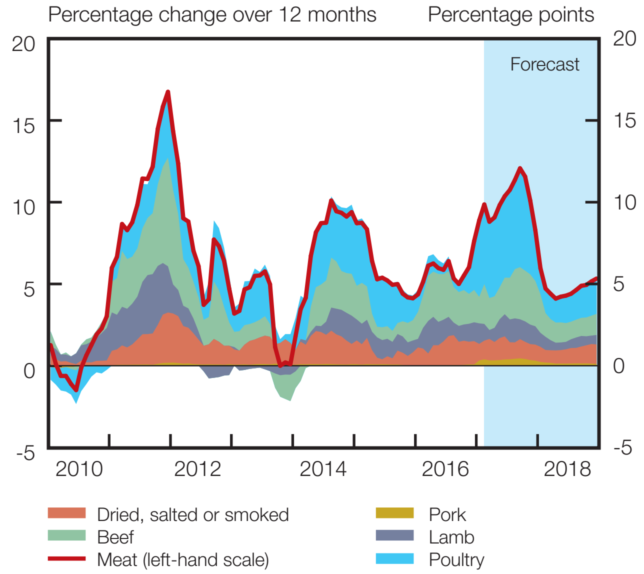
While the large contributors to 2016 food inflation (fruit and vegetables, and bread and cereals) moderate throughout 2017, these disinflationary effects will be partially offset by a continued rise in meat price inflation. Forecasts for this category have shifted higher and later. The peak is now expected at 11.4%, versus 9.1% in the October *MPR*, and is likely to be reached in the third quarter rather than at the start of 2017.

Selected agricultural and producer prices



Sources: SAFEX, SARB and Stats SA

Meat inflation and its drivers



Sources: SARB and Stats SA

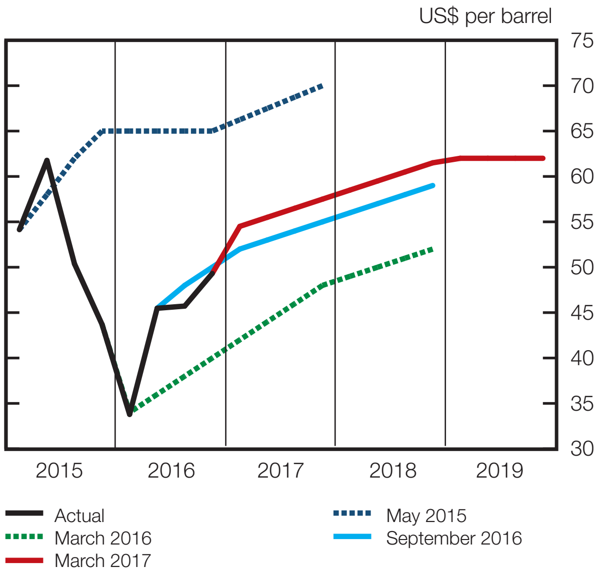
Consumer food price inflation

Percentage change over 12 months, previous weights and September 2016 forecast in italics

		Actual		Forecast		Actual		SARB forecast							
	Weight	2003-16	2016	2017	2018	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
Food and non-alcoholic beverages	17.24	6.9	10.6	7.4	5.2	11.3	11.7	9.7	7.0	6.9	6.0	5.1	5.2	5.3	5.3
	15.41		*10.8*	*6.0*		*11.8*	*12.3*	*8.2*	*6.4*	*5.5*	*4.0*				
Bread and cereals	3.21	7.5	14.6	5.5	4.8	15.9	16.9	12.6	5.8	2.6	1.1	1.9	4.7	6.2	6.3
	3.56		*14.6*	*8.5*		*15.9*	*16.7*	*12.7*	*8.8*	*7.3*	*5.7*				
Meat	5.46	6.7	5.8	10.1	4.7	5.6	6.4	9.2	9.8	11.4	10.0	5.0	4.2	4.6	5.1
	4.56		*6.4*	*8.5*		*6.1*	*8.1*	*9.2*	*9.1*	*8.3*	*7.6*				
Beef	1.44	7.6	8.3	9.4	4.9	8.4	7.1	7.6	7.7	11.1	11.3	6.4	4.6	4.1	4.6
Poultry	2.12	5.9	3.1	12.7	4.5	1.9	5.0	12.1	12.7	14.5	11.4	4.0	4.0	4.7	5.4
Vegetables	1.30	7.1	16.5	2.3	6.9	15.0	11.9	1.1	-1.1	4.1	5.2	6.8	7.0	7.9	6.0
	1.61		*16.3*	*2.7*		*15.1*	*11.1*	*1.5*	*-0.4*	*5.9*	*3.9*				

Sources: SARB and Stats SA

Evolution of Brent crude oil price forecasts



Sources: Bloomberg and SARB

Herd rebuilding has been singled out as a key driver of rising meat prices, and beef inflation is indeed likely to sustain meat price inflation over the forecast period. In the near term, however, poultry sector dynamics have also become important. Poultry inflation was unusually low for most of 2016, chiefly due to competition from imports. Yet it began to accelerate late in the year, reaching 12.4% in February 2017, from 1.7% in September 2016. There are two factors underlying this shift. The first is an outbreak of avian influenza in Europe, which has cut off supply from seven of the 10 countries which export poultry products to South Africa. The second and more significant is changes to brining regulations imposed by the Department of Agriculture, Forestry and Fisheries in October 2016. The new rules reduce the amount of salt water that may be injected into frozen chicken. Although this could be interpreted as a quality improvement rather than a price increase, it is nonetheless measured as inflation in the CPI.[10]

World food prices, denominated in US dollars, have begun to rise again following an extended period of deflation. The change in trend is broad-based, with positive price changes in all five of the broad food categories. In part, this reversal is explained by higher oil prices which have raised producer input costs. Sector-specific conditions are also contributing; for instance, the world's largest exporter of sugar, Brazil, has experienced poor crops. Although world food price projections have been marked up in the latest forecast, price pressures are expected to remain quite weak given substantial inventories of staple commodities, including many grains, as well as relatively low input costs.

10 Under the new regulations, a given portion of chicken will contain less saltwater but may also cost more per gram. The change in the price of the portion is treated as inflation, although strictly speaking the consumer is getting more chicken.

Box 2 Reweighting and rebasing the consumer price index – implications for the forecast

Statistics South Africa (Stats SA) has recently completed a routine reweighting and rebasing of the consumer price index (CPI). This box describes how these adjustments are likely to affect headline inflation. To quantify the direction and magnitude of the changes, the revised weights and bases were applied to an earlier forecast. The results suggest that there is a small net downward shift in overall CPI of roughly 0.1 percentage points for both 2017 and 2018. The 2017 changes are mostly explained by reweighting (particularly the lower weights of electricity and petrol). By contrast, the 2018 effects are almost entirely due to rebasing.

Reweighting means aligning the CPI basket with the latest consumer expenditure patterns (in this case, based on data from the 2014/15 Living Conditions Survey). This entails adjusting the shares of existing items as well as updating product coverage. For instance, in this latest update, stamps and DVDs were removed from the index, while instant noodles were added.

Rebasing means adjusting all the indices in the CPI basket to a new base period, in this case making December 2016 equal to 100. This is required because different sub-indices increase at a faster (or slower) pace than the overall index. As a result, some sub-indices might end up contributing more to headline inflation than would be justified by their respective weights.[1] These distortions can be controlled by periodic rebasing to a single starting point.

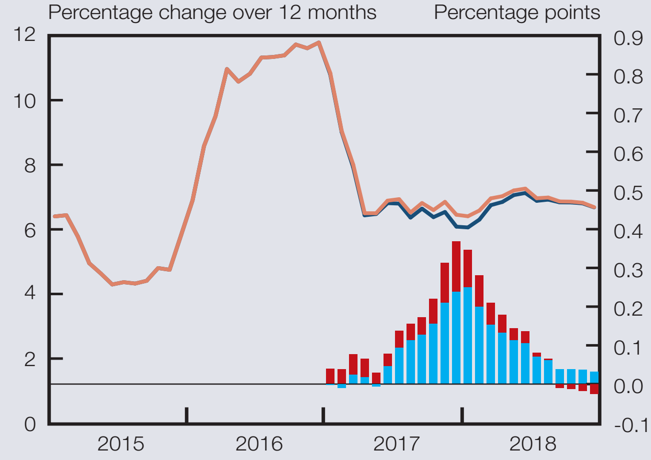
Administered price inflation is lower given changes to electricity and fuel. Electricity inflation continues to be relatively high, but whereas between 2008 and 2012 this increased the share of electricity in household expenditure, consumers have now cut back. As a result, electricity's share has fallen to 3.75%, versus 4.13% in 2012 and 1.68% in 2008. The forecast is also slightly lowered by a smaller weight for fuel, which has fallen from 5.68% in 2012 to 4.58% in 2016.

Food inflation is raising the forecast, given a larger weight for food as a whole (from 15.4% of the basket to 17.2%) as well as changing weights within the food category. Meat, which was already experiencing relatively high inflation, now has a larger weight (up by 0.9 percentage points, from 4.6% of the total 2012 basket to 5.5% of the 2016 basket). By contrast, bread and cereals, which have been disinflating, now have a smaller weight (falling from 3.6% to 3.2% of the total).

The weight of services in the basket is 1.2 percentage points higher. Both housing services and recreation and culture have been revised up, by 0.66 and 1.07 percentage points respectively. By contrast, weights have been reduced for major services categories like medical health insurance (-0.38%), education (-0.42%), and restaurants and hotels (-0.41%). The reweighting effects on the inflation trajectory are slightly positive, but these are overwhelmed by rebasing effects. The net result is that underlying inflation is lower by 0.13 and 0.15 percentage points in 2017 and 2018 respectively.

1 The intuition here is that when an item with an index value of 200 increases by 5%, that lifts the index 10 points to 210. The same 5% increase for an item with an index value of 100 adds just 5 points. Assuming both items have an equal weight in the CPI, the first item will have twice the impact on headline, compared to the second, in calculating the final inflation outcome. Yet both inflated by the same 5%. Periodic rebasing keeps such distortions small.

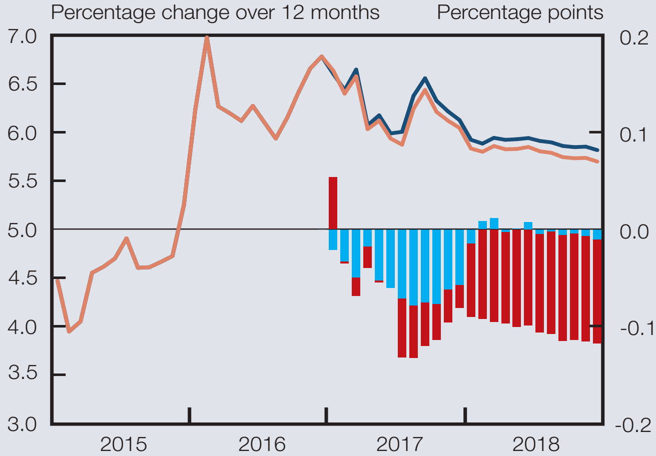
Food inflation



New base / New weights
Food (December 2012 = 100) (left-hand scale)
Food (new weights, December 2016 = 100) (left-hand scale)

Sources: SARB and Stats SA

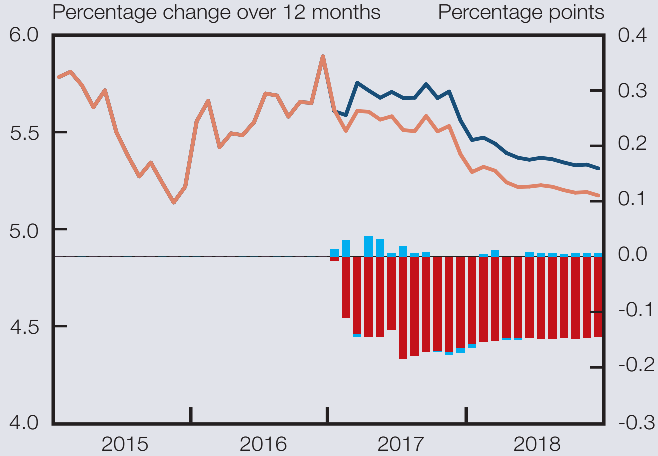
Headline consumer inflation



New base / New weights
Headline (December 2012 = 100) (left-hand scale)
Headline (new weights, December 2016 = 100) (left-hand scale)

Sources: SARB and Stats SA

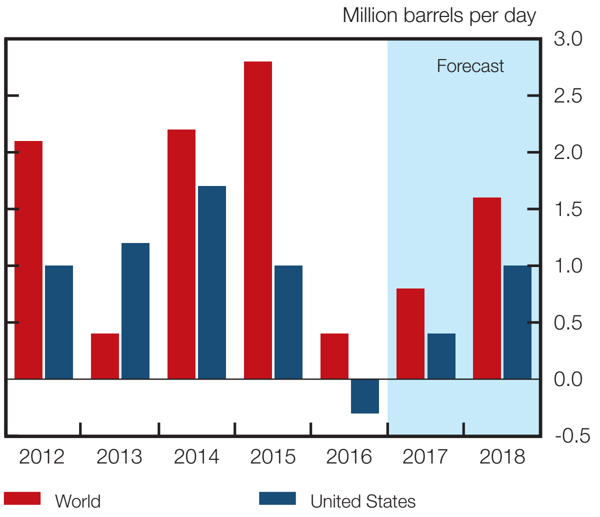
Core inflation inflation



New base / New weights
Underlying (December 2012 = 100) (left-hand scale)
Underlying (new weights, December 2016 = 100) (left-hand scale)

Sources: SARB and Stats SA

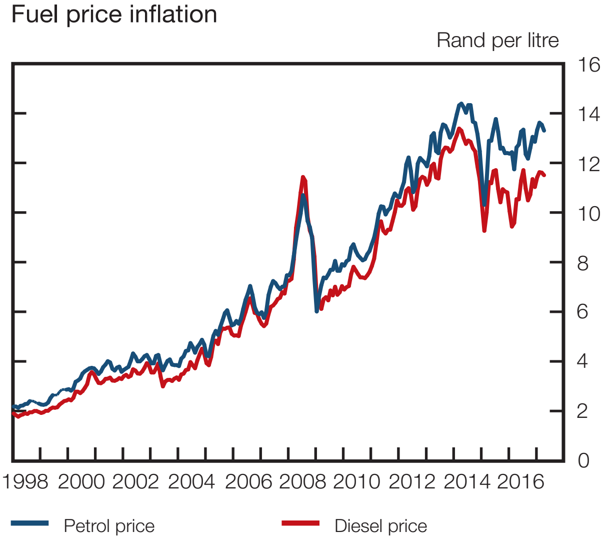
US and world oil production changes from 2012 to 2018*



* Includes crude oil, shale oil, oil sands and natural gas liquids, but excludes biofuels and ethanol

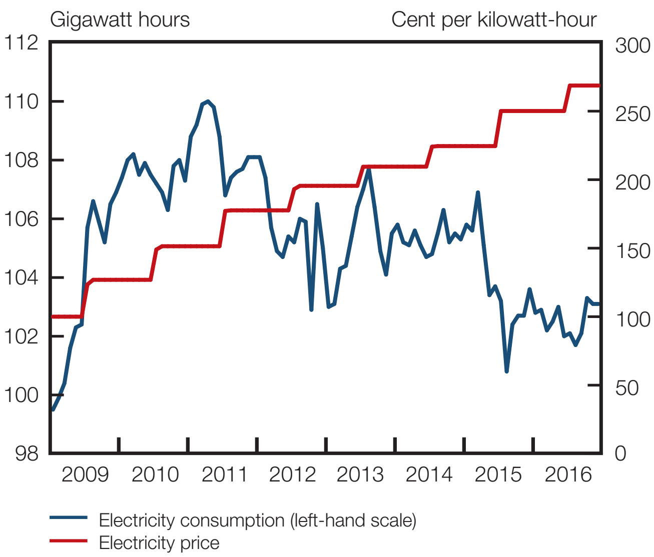
Sources: BP, Energy Information Administration and SARB

Fuel price inflation



Sources: Department of Energy

Electricity consumption and prices



Sources: Eskom and Stats SA

Fuel prices

Brent crude oil climbed to US$57 per barrel in January, escaping the US$30 to US$50 range in which it had traded since August 2015. This shift was triggered by the announcement of production cuts by the Organization of the Petroleum Exporting Countries (OPEC) as well as some non-OPEC countries, including Russia. The decision to reduce output marked a change of strategy by traditional producers, which had previously sought to defend market share by maintaining supply and using low prices to squeeze out marginal producers. Yet new rivals, chiefly shale producers in North America, proved unexpectedly resilient, prompting OPEC countries to re-assess.

Although production cuts were effective in pushing prices close to US$60 per barrel, they have since subsided to nearer US$50. There is a plausible case they will stay quite low. OPEC production cuts have typically not been implemented in full over time, as there are strong incentives to free-ride on others' efforts and enforcement mechanisms are relatively weak. Furthermore, North American producers have increased production in response to higher prices, limiting the overall reduction in supply. The oil price assumption used in the forecast is US$60 for 2017 and US$62 for 2018, but the lower level of prevailing prices suggests a risk this may be too high.

The change in local petrol prices has been greater than the gains in world oil prices, owing to increases in the various domestic cost factors that make up slightly more than half of the final petrol price, as well as international refinery margins and other costs such as freight and insurance. The total fuel price change in the forecast is 127 cents per litre between September 2016 and April 2017. Of this, just 27 cents reflects the international oil price portion of the local price. The balance is split roughly 60:40 between domestic taxes and margins (mainly for higher fuel and road accident fund levies) and international refinery margins and other costs. Over the forecast period, fuel price inflation is projected at 7.8%, 6.9% and 6.0% in 2017, 2018 and 2019 respectively.

Electricity prices

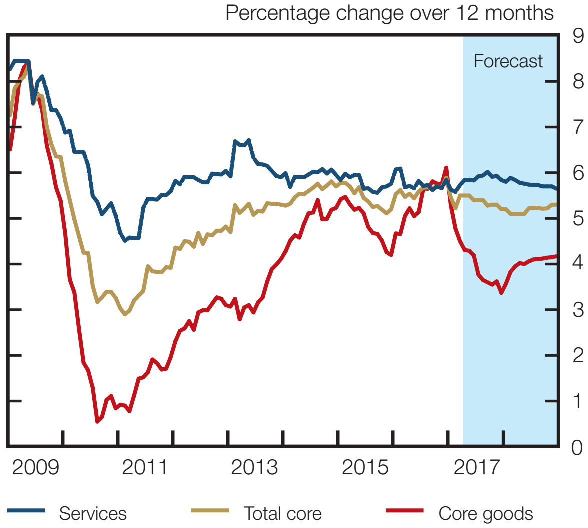
Although the multi-year pricing agreements are intended to make electricity prices more predictable, they remain complex and difficult to forecast. The National Energy Regulator of South Africa has approved Eskom tariff increases of 2.2% for the financial year 2017/18. This number is unusually low given the Regulatory Clearing Account (RCA) adjustment, which compensates for excess payments to Eskom in 2016/17; without this RCA adjustment, tariff increases would be 8%. The regulator has given Eskom permission to apply for a higher increase should the approved 2.2% threaten its financial sustainability, and it is possible that a higher figure will be granted, especially given that the Year 2 and Year 3 RCA applications by Eskom have not yet been processed. Given the uncertainties around Eskom's tariff increase, the SARB still assumes CPI electricity inflation of 7.7% for 2017 and 8% for both 2018 and 2019. Even if the 2.2% increase goes ahead, however, final prices faced by consumers are likely to rise by a larger magnitude – perhaps closer to 5% – due to municipal pricing decisions.

Core inflation

Core inflation is anticipated to trend downwards from its December 2016 high of 5.9%, averaging 5.4% in 2017, 5.2% in 2018 and 5.3% in 2019. This slight moderation in core is due to lower inflation in the core goods component, which is projected to benefit from rand appreciation. Vehicle inflation, for instance, is expected to fall from 7.6% in 2016 to just 3.8% in 2018, with its overall contribution to headline inflation forecast to drop from 0.5 percentage points in 2016 to 0.2 percentage points in 2018. Core nonetheless remains relatively elevated due to sticky services inflation, which is unlikely to depart from the upper end of the inflation target range.

The outlook for core inflation is broadly unchanged from the October 2016 *MPR*, recording an improvement of just 0.1 percentage points for each of the first two forecast years. The stability of the core forecast, despite continued exchange rate appreciation, is explained by offsetting increases in other factors, particularly medical insurance and rentals and owners' equivalent rent.

Core inflation and its components



Sources: SARB and Stats SA

Targeted inflation (March 2017 forecast)

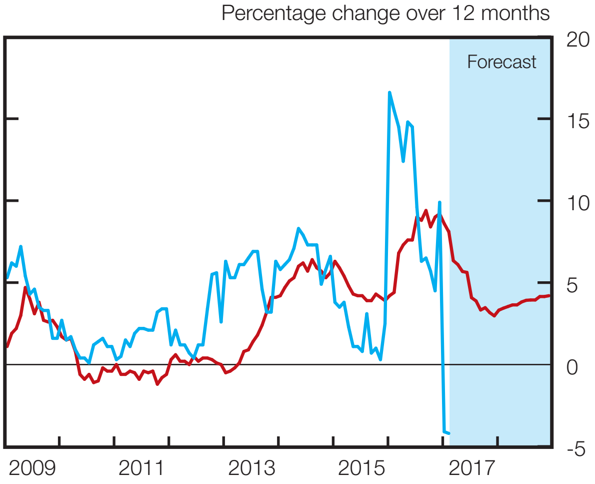
Percentage change over 12 months, previous weights and September 2016 forecasts in italics

	Actual			Forecast		Actual		SARB forecast							
	Weight	2003-16	2016	2017	2018	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
Targeted inflation	100.00	5.9	6.3	5.9	5.4	6.1	6.6	6.4	5.8	5.8	5.6	5.2	5.4	5.5	5.5
Core inflation*	74.43	5.0	5.6	5.4	5.2	5.7	5.7	5.4	5.5	5.4	5.3	5.1	5.1	5.2	5.3
	74.78		*5.7*	*5.6*		*5.7*	*5.9*	*5.8*	*5.7*	*5.5*	*5.4*				
Insurance	10.06	7.0	7.6	8.4	8.4	7.4	7.7	8.1	8.4	8.5	8.5	8.7	8.3	8.3	8.3
	9.92		*7.5*	*8.5*		*7.3*	*7.5*	*8.1*	*8.6*	*8.7*	*8.7*				
Education	2.53	8.4	5.3	7.2	8.0	4.6	4.6	5.7	7.7	7.7	7.7	7.8	8.0	8.0	8.0
	2.95		*5.4*	*7.2*		*4.6*	*4.7*	*5.7*	*7.7*	*7.7*	*7.7*				
Vehicles	6.12	1.7	7.6	5.2	3.8	9.1	8.8	7.7	5.8	3.8	3.4	3.5	3.7	3.9	4.1
	5.98		*7.6*	*5.3*		*9.0*	*8.8*	*7.5*	*5.6*	*4.2*	*3.9*				
Fuel	4.58	8.6	1.6	7.8	6.9	-4.7	3.1	10.4	4.6	8.3	8.0	4.6	8.0	7.6	7.6
Previously petrol	*5.68*		*1.0*	*7.0*		*-4.6*	*0.8*	*6.2*	*4.0*	*7.9*	*10.2*				
Electricity	3.75	11.8	9.2	7.7	8.0	7.4	7.4	7.4	7.4	8.0	8.0	8.0	8.0	8.0	8.0
	4.13		*9.2*	*7.7*		*7.4*	*7.4*	*7.4*	*7.4*	*7.9*	*8.0*				

* CPI excluding food, non-alcoholic beverages, fuel and electricity

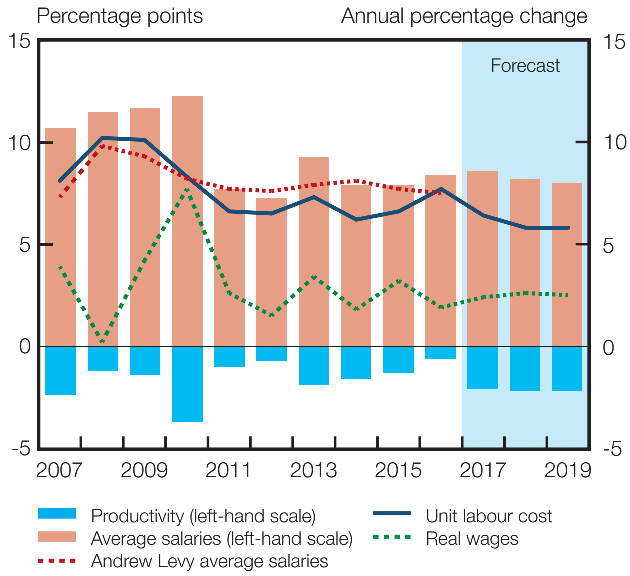
Sources: SARB and Stats SA

Vehicle prices at producer and consumer level



Sources: SARB and Stats SA

Unit labour cost and its components



Sources: Andrew Levy Employment Publications and SARB

Although service price inflation has been stable close to 6%, in line with inflation expectations and the upper end of the target range, key service sub-categories have experienced inflation well above this level for an extended period of time. In particular, inflation in the insurance and education categories has averaged 7% and 8.4% respectively between 2003 and 2016, compared to average headline inflation of 5.9%. Education inflation was briefly lower in 2016 following the decision to temporarily freeze tertiary tuition fees, but renewed increases will shift it back towards 8% by March 2017 and it is likely to stay close to these levels over the rest of the forecast period. Insurance inflation is expected to remain similarly elevated.

Employment, remuneration and unit labour costs

Wages and salaries are a continued source of inflationary pressure in South Africa. Increases in remuneration tend to be generous, at least for the upper deciles of income earners whose compensation accounts for the major portion of the total South African wage bill. This is due to the structure of labour market institutions as well as skills shortages, both of which bolster the negotiating power of this segment of the workforce. To some extent, the resulting price pressure is contained by off-setting factors: productivity growth, labour shedding and profit compression. Yet some portion also feeds into inflation.

In the context of weakening growth and rising unemployment, real wage growth might have been expected to stagnate. Nonetheless, the available data show continued real gains from 2011 onwards. The Andrew Levy wage settlement rate and the mean growth rate of wages and salaries in South Africa, derived from the Quarterly Employment Survey, have both remained elevated, averaging close to 8% over this period. After deducting average labour productivity growth of 1.2%, unit labour cost (ULC) growth has been 6.8%, above the upper bound of the inflation target.

ULC growth likely reached its post-crisis peak in 2016 at 7.5%, mainly due to the productivity loss implicit in very weak output growth. Over the forecast period, ULC growth is projected to moderate to 5.7% by 2018, its lowest level in over a decade, with average salaries growing at 8.1% and productivity growth at 2.1%. The deceleration in ULCs is premised on improved GDP outcomes and – much less desirably – job losses. Without these developments, ULC growth could surprise on the upside, lifting core inflation.[11]

Exchange rates

In a small open economy like South Africa, import prices are another key driver of inflation. One aspect of these prices is international wholesale prices; the other crucial determinant is the exchange rate. Over the past year, the rand has benefitted the inflation forecast. It has recovered from a weak position in in January 2016, and by March 2017 was back at mid-2013

11 This discussion refers to the ULC measure used in the forecast, which differs from that published in the *Quarterly Bulletin*. The forecast uses economy-wide remuneration, whereas the *Quarterly Bulletin* measure covers only the formal, non-agricultural sector.

levels against the euro and sterling, and at mid-2015 levels against the US dollar. This rand recovery reflected several complementary factors, including improved macroeconomic fundamentals in South Africa, diminished political uncertainty and reduced global risk aversion. The appreciation trend has at times been interrupted by shocks, including the Brexit referendum and the US elections. In each of these episodes, however, the rand has subsequently rebounded, returning to its appreciation trend.

The outlook for the exchange rate remains uncertain. The rand could appreciate further, supported perhaps by commodity prices and better domestic growth and confidence. Yet it might well weaken again, given several domestic or foreign factors. On balance, the risk to the exchange rate is that it will depreciate in the near term in response to increased political uncertainty, potentially accelerating inflation.

The exchange rate assumption used in the forecast is predicated on a simple convention: the real exchange rate is held constant at around the starting point shortly preceding the MPC meeting – allowing sufficient time for the modelling team to prepare the forecast – with the nominal exchange rate then adjusting across the forecast horizon in line with inflation differentials. This practice has in recent meetings tended to make the exchange rate used in the forecast somewhat weaker than the one prevailing at the time of the policy decision. It has also left the exchange rate in each subsequent meeting somewhat more favourable than the one used before. The fact that this has not produced larger variations between the different forecasts points to offsetting factors, but also the fact that pass-through to inflation remains quite low. Applying an exchange rate shock to the latest version of the core econometric model yields a response of only about 0.15 in the peak quarter. Furthermore, historically, pass-through has been weaker in appreciation phases than during depreciations.[12]

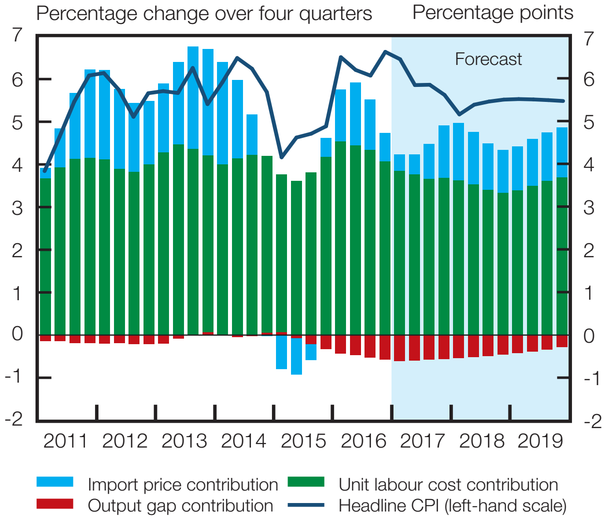
Inflation expectations

In a flexible inflation targeting framework, inflation is permitted to depart temporarily from target in the event of shocks. Inflation expectations help policymakers judge whether such shocks will in fact prove temporary. If inflation expectations are well anchored in the right place, shocks should pass out of the year-on-year comparisons after 12 months and inflation will revert to target. However, if medium term expectations change in line with current inflation, or if they are anchored at an inappropriate level, then wages and prices are likley to respond and inflation will not return to its desired rate without some form of monetary policy response.

There are several available measures of inflation expectations in South Africa. One of the most frequently consulted is the Bureau for Economic Research's (BER) survey, which collects the views of union leaders, business people and financial

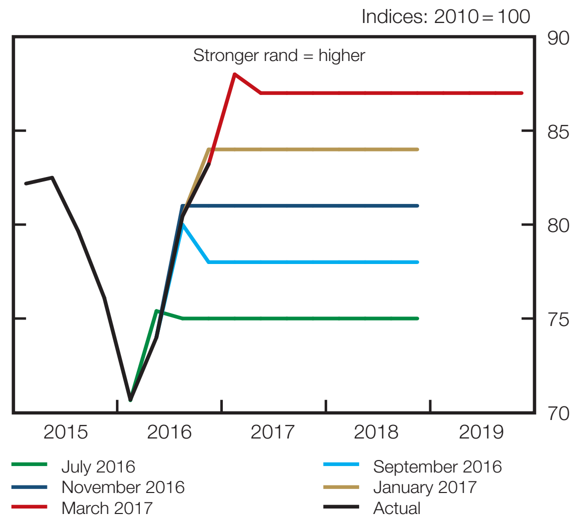
12 Karoro, T D, Aziakpono, M J and Cattaneo, N. 2009. 'Exchange rate pass-through to import prices in South Africa: Is there asymmetry?' South African Journal of Economics, 77(3): 380-398.

Contribution to headline inflation



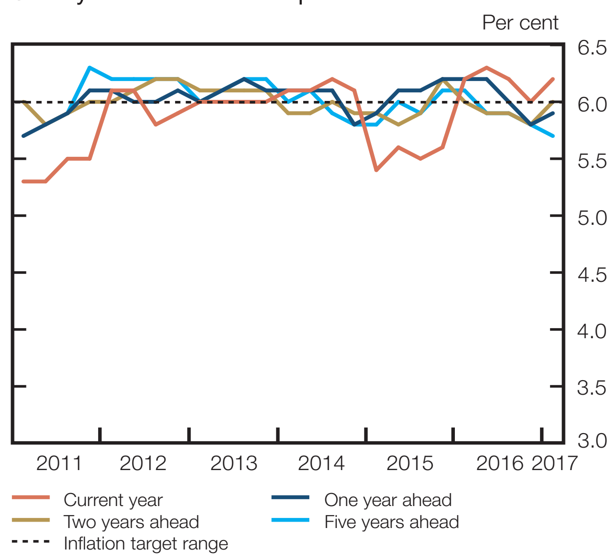
Sources: SARB and Stats SA

Evolution of the real effective exchange rate assumptions



Source: SARB

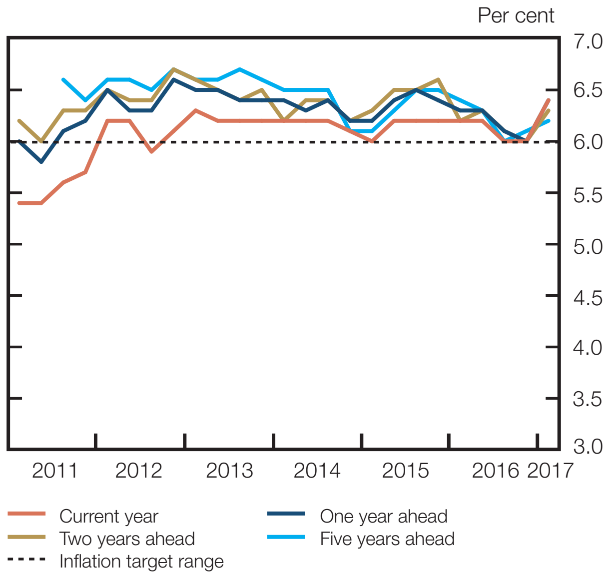
Survey-based inflation expectations*



* Total, combining expectations of labour, business and analysts

Source: BER

Survey-based inflation expectations of business



Source: BER

Break-even inflation rates

Source: Bloomberg

analysts. According to this survey, aggregate expectations for one, two and five years ahead are clustered around the top of the target range, varying between 5.7% and 6.2%. The analyst component of the survey shows expectations somewhat lower in the medium term, at 5.4% and 5.5% in 2018 and 2019, which is in line with the SARB forecast. (These expectations are also echoed in the Reuter's survey of analysts, for which many of the contributors are the same.) Arguably, the expectations of business people in the BER survey are the best available guide to price-setting behaviour. These expectations are higher and have also been more stable than those of analysts; they are currently at 6.4% and 6.3% for 2018 and 2019.

Break-even inflation rates, a market based measure of inflation expectations, have improved from levels approaching 8% in early January 2016, trending back towards 6%. Break-even rates cannot be strictly compared to inflation surveys as they also price in risks of inflation surprises (an inflation risk premium). Furthermore, they are also sensitive to market idiosyncrasies affecting the underlying instruments from which break-even rates are calculated. Nonetheless, they reflect inflation expectations for long time periods, five to ten years, over which shocks should be expected to even out. The fact that break-evens remain close to or above the target therefore suggests the same interpretation attached to the BER survey: that expectations are sticky close to, or above, the top end of the 3–6% target range.

Conclusion

Headline inflation is falling back below 6% following an extended breach of the inflation target. The forecast indicates it will remain within the upper portion of the target range across the medium term. The decline in inflation reflects stabilising food and petrol prices as well as currency appreciation. Yet the persistence of inflation above global and emerging market averages speaks to wage and price rigidities, which are fed by elevated inflation expectations. While the stability of expectations has been reassuring in the context of above-target inflation, it would be preferable for expectations to be anchored more centrally within the inflation target range.

Box 3 Comparing the accuracy of CPI forecasts

Economic forecasts are critical inputs into the monetary policymaking process. To test the quality of forecasts and to build credibility, the best practice among central banks is to conduct routine accuracy assessments and publish the results. Accordingly, previous *Monetary Policy Reviews* have contained boxes on the growth and headline inflation forecasts (e.g. in April 2016) the core forecast (October 2016) as well as the fan charts (June 2015).

The usual standard for evaluating the forecasts is to compare them with observed outcomes. An alternative would be to contrast performance with that of other institutions. This is helpful as a yardstick for success: even forecasts which proved close to outcomes and were not biased in a particular direction would need improving if rival forecasts performed better. Furthermore, a large forecasting error is less embarrassing if it is shared by other forecasters. For instance, it was wrong but not unreasonable for 2013 forecasts to miss the collapse in the world oil price and therefore overstate headline inflation.

In this box, the South African Reserve Bank (SARB) forecasts are compared with those provided by other organisations to Reuters.[1] These forecasts are divided into two periods, one up to and including the crisis (2003Q3 to 2009Q4) and the other post-crisis (2010Q1 to 2016Q4). The accuracy tests consider both the size and bias of projection errors.[2]

The error statistics reveal that the SARB is most accurate over all forecast horizons for the pre-crisis period, but all forecasters are less accurate in this period compared to the next because of the large shock to inflation during 2007 and 2008. In period 2, although all the forecasts improve, the SARB's ranking worsens somewhat.[3] In particular, the SARB's forecast six quarters ahead slips to 10th place out of 14, whereas in all other cases the SARB forecast ranks either first or second. The size of the error remains quite small, however.

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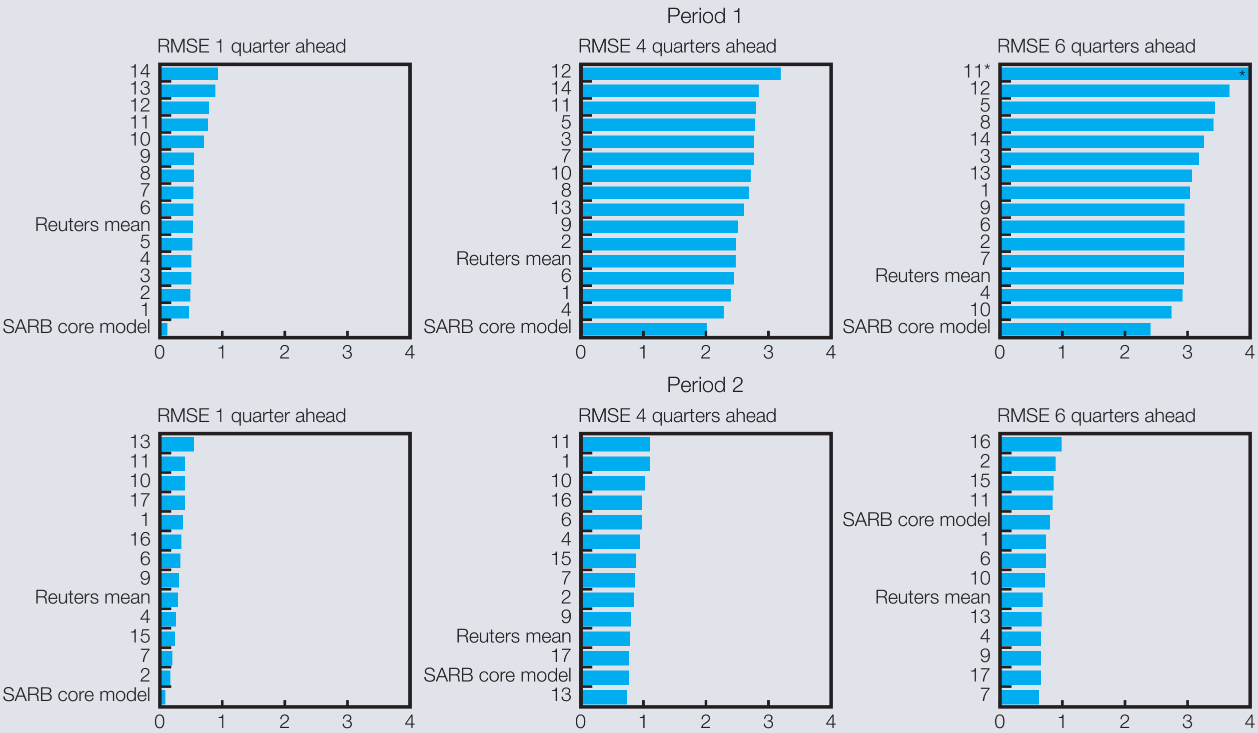
1 Currently between 12 and 14 institutions and economists participate on a regular basis in supplying Reuters with quarterly economic forecasts of consumer price inflation. Reuters forecast contributors change over time in terms of who participates and how often they do so. It is important therefore to discard those forecasters that do not have a significant track record (taken as less than 30 forecasts over the periods chosen) or contribute sporadically.

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

3 The average value of the RMSEs has decreased by a significant factor – from 3.2% points during the first period to 0.7% points during the second period.

Size of forecast errors



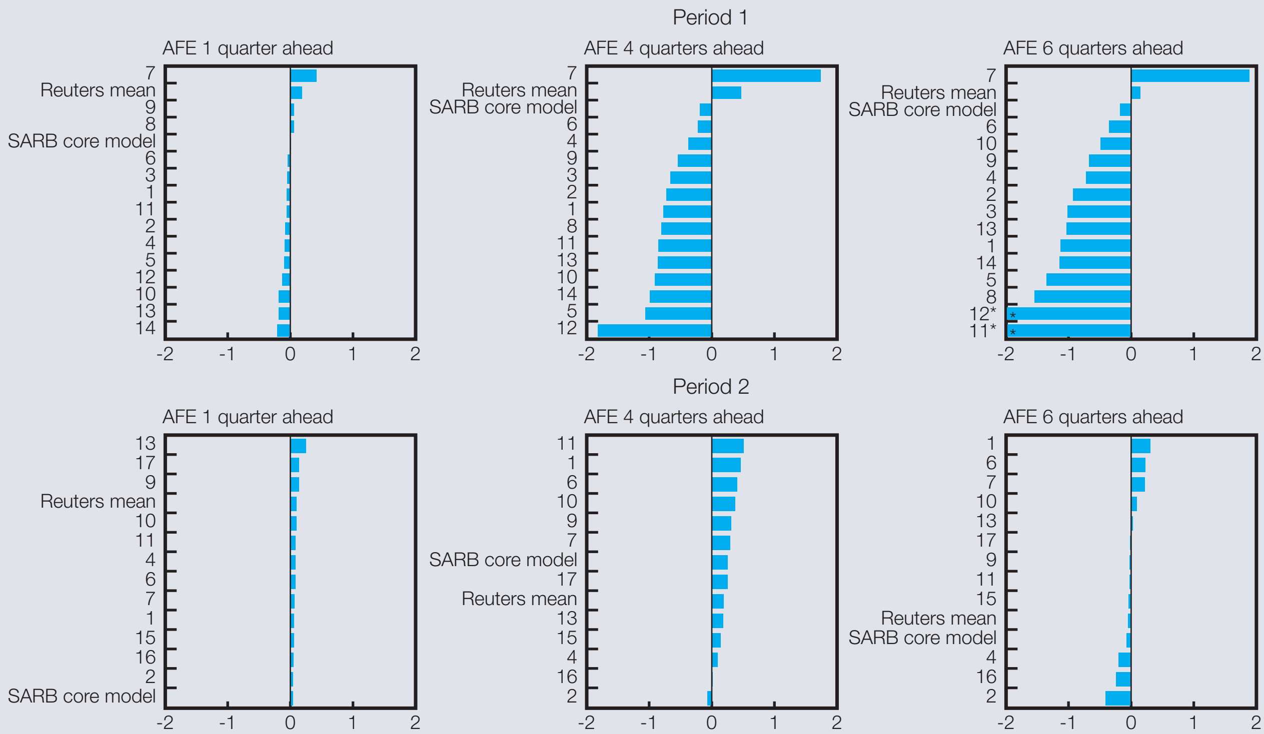
* Size of worst RMSE 6 quarters ahead in Period 1 = 5.7

Sources: Reuters and SARB

Average forecast errors then show that both the SARB core model and the Reuters' average are relatively unbiased across the two time periods and also for forecasts of different durations. A number of private sector forecasters recorded fairly large negative errors both four and six quarters ahead in period 1, but this mainly indicates significant underestimation of the inflation spike during 2007 and 2008.

One interpretation of these findings is that economists have improved their forecasting ability. Another is that inflation has become more stable and therefore simpler to predict. More inflation stability, in turn, may be a better indicator of luck and the achievements of monetary policy than of forecasting quality.

Forecast error bias



* Size of worst AFEs 6 quarters ahead in Period 1 = -2.1 and -4.0

Sources: Reuters and SARB

Summary

The assessment of South Africa's economic outlook depends, to some extent, on the perspective adopted. From an earlier starting position, perhaps 2011, the combination of growth under 2% for the foreseeable future and inflation either at or above the top of the target range looks very disappointing. From a more recent vantage point, accelerating growth, with inflation falling back into the target range, marks a welcome improvement. This comparison highlights the extent of the economic deterioration experienced in recent years, culminating in 2016's stagflation.

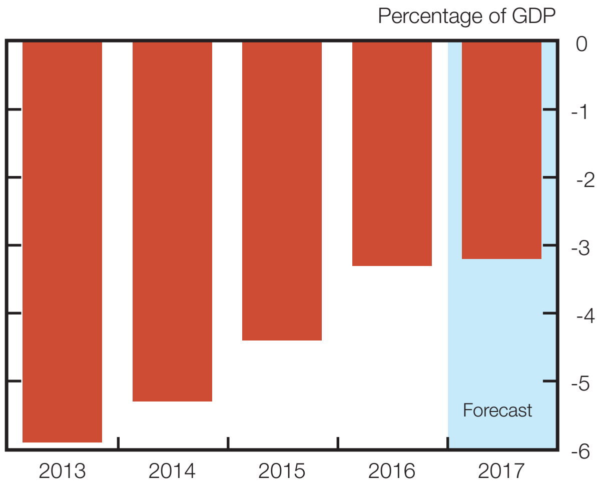
Reaching this low point required a variety of adverse developments. Global growth slowed steadily from 2011 onwards, reaching a new post-crisis low in 2016. Furthermore, South Africa suffered from greater exposure to the parts of the global economy that slowed most markedly (the euro area, China) than those that recovered more rapidly (the US). Commodity prices weakened, prompting a steady decline in South Africa's terms of trade between 2011 and 2016. World capital flows also became somewhat more discriminating as the US Fed moved away from quantitative easing towards policy normalisation, increasing pressure on borrower countries.

These problems were compounded by a series of domestic shocks. Labour disputes disrupted production in several key sectors. Electricity shortages became acute in 2014 and 2015, and although load shedding has since been avoided, electricity production remains below early 2015 levels. The drought in 2016 was one of the worst in South African history. Policy uncertainty also intensified, with various proxies for this variable peaking late in 2015 and early 2016. In this context, consumer and business confidence weakened to levels last seen during the global financial crisis.

This combination of shocks posed difficult policy challenges. One was developing a realistic assessment of the economy's potential. In the immediate post-crisis years, expectations were that GDP growth would soon revert to levels of 3% or higher. This outlook motivated large budget deficits and provided assurance that higher debt levels would be manageable when growth rebounded. Instead, growth failed to recover and estimates of potential slipped to around 1.5%, putting government debt dynamics on a less sound trajectory.

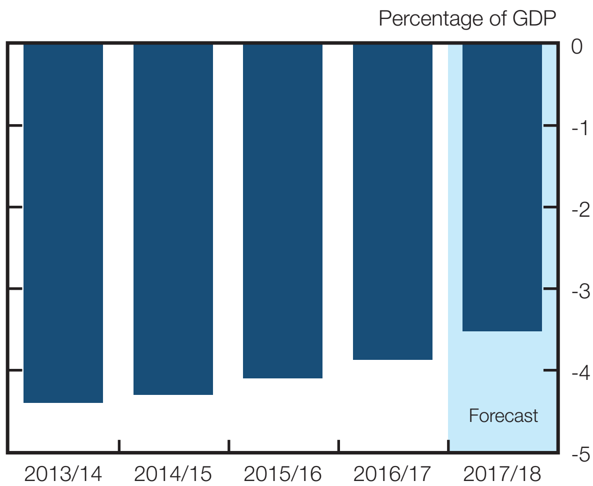
For monetary policy, lower estimates of potential growth largely closed output gaps, implying reduced scope for demand stimulus. Meanwhile, inflation dynamics were deteriorating, given repeated supply shocks on top of stubbornly high services inflation. Furthermore, persistent exchange rate depreciation fuelled a steady rise in underlying inflation, helping drive core from the bottom to the top of the 3–6% target range. As a question of policy, rand depreciation has improved the economy's competitiveness and helped to absorb shocks, especially the decline in commodity prices. Yet the depreciation trend was also a symptom of deeper problems, including an

Current account balance



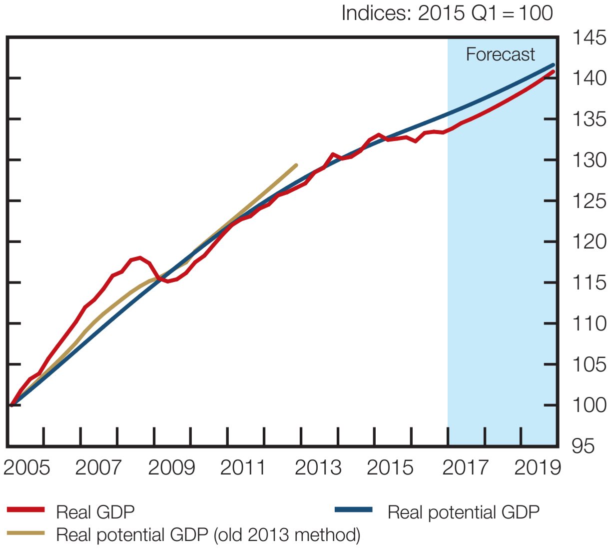
Source: SARB

Main budget balance



Source: National Treasury

Real and potential GDP



Source: SARB

unsustainably large current account deficit. In this context, the inflation forecasts began pointing to sustained target breaches. Furthermore, with inflation expectations already precariously positioned close to or above 6%, the risks to the medium term inflation forecast were becoming excessive.

Macroeconomic policy reached a turning point in early 2014. Monetary policy embarked on a tightening cycle, and at around the same time fiscal policymakers began setting out a consolidation agenda to stabilise debt relative to GDP. These policy adjustments reduced the degree of stimulus provided to the economy, contributing to macroeconomic rebalancing. Since then, global conditions have improved and some domestic shocks, like drought, have abated. These factors underpin some economic recovery over the forecast period. Growth is expected to rise towards 2% by 2019, closing the output gap. Inflation should be back within the target range by the second quarter of 2017 and is projected to remain there until the end of the forecast period. As such, the policy rate trajectory may now have stabilised. However, forecast inflation is still relatively elevated, remaining above 5% for 2018 and 2019, and inflation expectations are uncomfortably close to 6%. This limits the scope for rate cuts. Furthermore, the risks are that inflation will be higher, and growth will be worse, than currently projected, owing in part to a recent spike in uncertainty. The much-needed improvement envisioned by the forecast may therefore not materialise.

Statement of the Monetary Policy Committee

24 November 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% in August, in line with the expectations of the South African Reserve Bank (SARB). 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.

Since the previous meeting of the Monetary Policy Committee (MPC), the global economic and political landscape has changed significantly following the presidential election in the United States (US). The high degree of uncertainty surrounding the economic policies of the new administration is expected to persist for some time, creating a more challenging and volatile environment for emerging markets in particular. Higher US long bond yields, along with expectations of a tighter stance of monetary policy by the US Federal Reserve (Fed) than previously expected, have contributed to the reversal of the recent positive sentiment towards emerging markets. The prospect of rising protectionism and its implications for world trade are also a concern.

These developments have also affected capital flows to South Africa, with implications for the rand and bond yields. Domestic growth and inflation dynamics have remained more or less in line with expectations, but risks to the inflation outlook have increased moderately.

The year-on-year inflation rate, as measured by the consumer price index (CPI) for all urban areas, measured 6.1% and 6.4% in September and October respectively, compared with 5.9% in August. The October outcome was marginally above the forecast of the SARB. Food price inflation accelerated further to a recent high of 12.0%, with the category of food and non-alcoholic beverages contributing 1.8 percentage points to the overall inflation outcome. Goods price inflation measured 7.1% in October, up from 6.6% in September, with non-durable goods inflation increasing to 7.6%. Services price inflation increased from 5.6% to 5.8%. The SARB's measure of core inflation – which excludes food, fuel and electricity – measured 5.7%, up from 5.6%.

Producer price inflation for final manufactured goods measured 6.6% in September and October, down from 7.2% in August. The main contributor to the October outcome was the category of food products, beverages and tobacco products, which contributed 4.0 percentage points and reflects the continued impact of the drought on food prices.

The latest inflation forecast of the SARB is broadly unchanged over the forecast period, despite a moderate upward adjustment to the food price forecast in the later quarters. The annual averages are unchanged at 6.4% for 2016 and 5.8% and 5.5% respectively in the coming two years. Inflation is expected to peak at 6.6% in the fourth quarter of this year, marginally lower than in the previous forecast, with a sustained return to within the target range still expected to occur during the second quarter of 2017. The higher food price assumption is offset by a slightly more appreciated exchange rate assumption.

Core inflation is expected to average 0.1 percentage points less in each year of the forecast period compared with the previous forecast, at 5.6% this year and 5.5% and 5.2% in 2017 and 2018 respectively. Core inflation is expected to remain within the target range over the forecast period, with a peak of 5.8% in the final quarter of this year.

The annual inflation expectations of economic analysts, as reflected in the Reuters Econometer survey conducted in November, are broadly unchanged since September and are similar to those of the SARB. The median forecast for the current and next two years are 6.3%, 5.8% and 5.6% respectively. Bond market expectations implicit in the break-even inflation rates, i.e. the yield differential between conventional government bonds and inflation-linked bonds, increased in the wake of the recent depreciation of the rand. They remain above the upper end of the inflation target range.

The global outlook became increasingly uncertain during the year following the decision of the United Kingdom (UK) to leave the European Union and the outcome of the US presidential election. While the new policy direction in the US is still unclear, the markets have interpreted the outcome as being positive for US growth in the short run, with commitments to tax cuts and higher fiscal spending on infrastructure. These policies are expected to result in higher growth and inflation, particularly against the backdrop of an increasingly tight labour market. Nevertheless, the timing and extent of the expenditure boost is highly uncertain at this stage.

While an increase in infrastructure expenditure could be positive for commodity prices, other aspects of the possible new policy direction are likely to have an adverse effect on emerging markets. These include a possibly more aggressive tightening of US monetary policy in response to higher inflation and growth, which could also reduce the multiplier effect of the fiscal expansion. Together with the recent sharp increase in US long bond yields, the possibility of such actions has led to a reversal of capital flows to emerging markets, reminiscent of the market reaction to the so-called US taper tantrum in 2013. The impact on emerging market currencies and bond markets, including in South Africa, is already evident. Given the high degree of uncertainty, the financial markets may have overreacted.

A further concern for emerging markets is the potential change of trade policies that may impact on existing trade treaties, as well as unilateral increases in tariff protection in the US. The outlook for emerging markets has therefore become more uncertain. The lingering concerns about the sustainability of the recovery in the Chinese economy have been revived by the possibility of tariff increases on Chinese exports. Countries with strong direct trade links with the US, in particular Mexico, are most vulnerable to increased trade barriers. A more protectionist US stance could reinforce the already slow growth of global trade.

The short-term fallout of the Brexit vote on the UK economy has been limited to date, in part due to the accommodative monetary policy response. The longer-term impact remains unclear as the terms of withdrawal are still to be negotiated and there are concerns that a delay in clarity could undermine investment. The eurozone is expected to continue with its slow but steady recovery, and the Japanese economy continues to battle with deflation.

Global inflation remains generally benign. Since the previous meeting of the MPC, a number of countries have loosened monetary policy. Expansionary policies are expected to persist in the eurozone, Japan and the UK, despite emerging inflation pressures in the latter. By contrast, a persistence of significant outflows from emerging markets in response to the possibility of a tighter US monetary policy stance could pose challenges for monetary policies in a number of these economies.

These new global developments have impacted on the domestic bond and foreign exchange markets. The rand appreciated steadily from the middle of October in response to some positive domestic developments as well as inflows from a large mergers and acquisitions transaction. The currency was trading at around R13.20 against the US dollar just before the elections. It then reached its weakest point of R14.60 against the US dollar in the wake of the surprise outcome, before recovering somewhat. Domestic long bond yields (R186) initially spiked by about 60 basis points, but the increase has since moderated to about 25 basis points. Since the previous meeting of the MPC, the rand has depreciated by about 5.7% against the US dollar and by about 1.1% on a trade-weighted basis.

The rand is expected to remain sensitive to changes in the stance of US monetary policy. A US rate increase is generally expected in December and probably largely priced in, but of greater significance for the rand will be the signals from the Federal Open Market Committee (FOMC) regarding the trajectory of future increases. The rand will also remain sensitive to the sovereign ratings announcements due later this month and early in December.

On the positive side, the rand has been given support by the generally improved trade account in recent months. However, the deficit on the current account of the balance of payments is expected to have widened in the third quarter of this year.

The financing of the deficit may become more challenging should the recent significant non-resident sales of bonds and equities persist. During October and on a month-to-date basis, non-residents have been net sellers of domestic bonds and equities to the value of R42.7 billion and R19.7 billion respectively.

The domestic economic growth outlook remains subdued, although the low point of the cycle appears to be behind us. The SARB's forecast remains unchanged at 0.4% for 2016 and 1.2% and 1.6% respectively for the next two years. While the estimate for potential real gross domestic product (GDP) growth was revised down marginally to 1.3%, rising to 1.5% by 2018, the output gap is expected to remain negative over the forecast period. The SARB's composite leading business cycle indicator improved in August and September, continuing a recent generally positive albeit gradual upward trend.

Available monthly data suggest that growth in the third quarter is likely to be positive but well below the rate recorded in the second quarter. The mining sector contributed positively to GDP growth in the quarter. The physical volume of manufacturing output declined despite a positive month-to-month outcome in September. The Barclays Purchasing Managers' Index (PMI), which declined further in October, has remained below the neutral 50 index point level for three consecutive months. The weak trends in manufacturing are consistent with the continued low levels of business confidence despite a moderate improvement in the third quarter. More positively, the services sector is expected to sustain its positive growth rate, with the tourism sector being particularly buoyant.

Consumption expenditure by households remains subdued, with declining retail trade sales and static wholesale trade sales in the third quarter of this year. Although new motor vehicle sales increased sharply on a month-to-month basis in October, a sizeable proportion of this is attributed to car rental companies; challenging conditions in the new vehicle sector persist.

Consumers continue to face a number of constraints. Employment growth is particularly weak. Household debt levels, while moderating, are still elevated. And wealth effects are muted amid stagnant equity and residential property markets. Furthermore, growth in credit extension to households remains subdued.

The slow growth in household disposable incomes is also reflected in a gradual decline in wage growth, with growth in nominal remuneration per worker declining to 5.8% in the second quarter. When an adjustment is made for the increase in labour productivity, growth over four quarters in nominal unit labour costs measured 5.1% in the second quarter. The Andrew Levy Employment Publications survey reports an average wage settlement rate in collective bargaining agreements of 7.5% in the first three quarters of the year and 7.1% in the third quarter. This may be indicative of wage settlements becoming more sensitive to the persistently high unemployment rates.

According to the *Medium Term Budget Policy Statement (MTBPS)* released in October, fiscal consolidation is set to continue at a measured pace. A moderate degree of slippage is expected in the near term, as tax receipts are negatively affected by the economic slowdown. In order to prevent an excessive widening of the fiscal deficit, the *MTBPS* proposes a reduction in the expenditure ceiling and tax increases, to be announced in February. A revised deficit of 3.4% of GDP is expected in the current fiscal year, steadily narrowing to 2.5% of GDP in the 2019/20 fiscal year.

Food price inflation remains a significant driver of inflation. It remains sensitive to the continuing drought. While food price inflation is still expected to moderate from early 2017, the pace of decline is expected to be slower than previously forecast. This has led to an upward revision to the food price assumption in the forecast during the outer quarters in particular. The change is mainly due to the delayed impact of meat prices, which are now expected to peak only in early 2018 as farmers rebuild their herds during 2017.

Brent crude oil prices reached a year-high of US$52 per barrel in early October following the decision of the Organization of the Oil Exporting Countries (OPEC) to curtail production. Since then, prices have declined following doubts about the prospects for an agreement on the distribution of production cuts across the cartel. Some price volatility is expected in the short run as negotiations on production cuts continue. The SARB's forecast maintains the assumption of a moderate upward trajectory of international oil prices over the forecast period. The domestic price of 93 octane petrol increased by a cumulative 88 cents per litre in October and November, with almost all of the increase due to higher international product prices. The current over-recovery indicates that, should current trends persist, about half of that increase could be reversed in December.

The MPC is of the view that a high degree of uncertainty surrounds the nature and timing of possible policy changes emanating from significant developments in the global economic environment. This elevated uncertainty creates a more challenging environment especially for emerging markets, as evidenced in the recent changed pattern of capital flows. Financial markets are thus likely to remain volatile for some time.

Since the previous meeting of the MPC, the inflation forecast has remained largely unchanged. Whereas the risks to the inflation forecast were previously assessed to be more or less balanced, the MPC now assesses the risks to be moderately to the upside. This is mainly due to the possible impact of adverse global developments on the exchange rate. The risk of domestically generated shocks to the exchange rate also remains. Nevertheless, despite its high degree of volatility, the rand has displayed relative resilience in the face of numerous shocks over the past year.

The domestic growth outlook is unchanged and remains constrained against the backdrop of weak business and consumer confidence. The risks to the growth forecast are assessed to be broadly balanced. Domestic demand pressures remain weak, and consumers are expected to remain under pressure for some time.

The MPC has accordingly decided to keep the repurchase rate unchanged at 7.0% per annum. The decision was unanimous.

The MPC remains concerned that the inflation trajectory is uncomfortably close to the upper end of the target range. Furthermore, the uncertain environment and moderately higher risks to the inflation outlook require continued vigilance. While the MPC retains the view that we may be close to the end of the hiking cycle, this position may be reassessed should the upside risks transpire.

Summary of assumptions: Monetary Policy Committee meeting on 24 November 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%	3.0%	2.8%	2.9%	3.1%
			(2.8%)	(2.7%)		
2. International commodity prices in US$ (excluding oil)..........................	-6.4%	-9.8%	-19.3%	-4.5%	5.5%	1.0%
3. Brent crude (US$/barrel)	108.8	99.2	52.5	44.0	53.5	57.5
				(44.3)		
4. World food prices (US$)	-1.6%	-3.8%	-18.7%	-1.6%	5.5%	2.5%
				(-4.9%)	(3.0%)	(3.0%)
5. International wholesale prices...	0.3%	-0.1%	-3.5%	-1.2%	1.1%	1.2%
				(-1.1%)		
6. Real effective exchange rate of the rand (index 2010 = 100)	81.91	79.17	80.08	76.67	81.00	81.00
				(75.67)	(78.00)	(78.00)
7. Real effective exchange rate of the rand...	-10.1%	-3.3%	1.1%	-4.3%	5.7%	0.0%
				(-5.5%)	(3.1%)	

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%	5.2%	6.4%	7.6%
				(5.1%)	(6.7%)	(7.3%)
– Petrol price	11.8%	7.2%	-10.7%	1.4%	5.7%	8.9%
				(1.0%)	(7.0%)	(7.9%)
– Electricity price..	8.7%	7.2%	9.4%	9.3%	7.7%	8.0%
3. Potential growth..	2.0%	1.7%	1.5%	1.3%	1.4%	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 48 and 49.

Selected forecast results: Monetary Policy Meeting on 24 November 2016

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	6.1	6.6	6.4	6.1	5.7	5.8	5.5	5.8	5.5	5.5	5.5	5.6	5.5
								(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)
2. Core inflation.................................	5.7	5.6	5.3	5.2	5.5	5.5	5.5	5.7	5.8	5.6	5.6	5.6	5.5	5.4	5.5	5.2	5.2	5.2	5.3	5.2
								(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)

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

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%
2. Current account as a ratio to nominal GDP.............................	-5.9	-5.3	-4.3	-3.8	-4.3	-4.4
				(-4.0)	(-4.2)	

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

Statement of the Monetary Policy Committee

24 January 2017

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

Since the previous meeting of the Monetary Policy Committee (MPC), the near-term inflation outlook has deteriorated, but the longer-term outlook is more or less unchanged. The expected inflation profile has been negatively affected by higher international oil prices and a persistence in elevated food price inflation despite improved rainfall in many of the drought-stricken regions. At the same time, the rand has displayed some resilience. While some of the key risks to the rand appear to have subsided for now, they could re-emerge at any stage.

Global growth prospects are mixed amid policy uncertainty, primarily in the United States (US) and the United Kingdom (UK). The domestic growth outlook remains challenging, although a modest improvement is expected over the forecast period.

The year-on-year inflation rate as measured by the consumer price index (CPI) for all urban areas measured 6.8% in December, up from 6.6% in November. The December outcome surprised on the upside relative to the South African Reserve Bank's (SARB) forecast and the market consensus expectation of 6.5%. The main sources of this surprise included food prices, housing rentals, recreation and culture, and restaurants and hotels. Food price inflation remained elevated at 12.0% in December, matching the recent high recorded in October 2016. The contribution of the category of food and non-alcoholic beverages to the overall inflation outcome has remained unchanged at 1.8 percentage points for the past three months. Goods price inflation measured 7.8% in December, up from 7.7% in November, while services price inflation increased from 5.6% to 5.9%. The SARB's measure of core inflation, which excludes food, fuel and electricity measured 5.9%, up from 5.7%.

Producer price inflation for final manufactured goods measured 6.9% in November, compared with 6.6% in October. The main contributor to the November outcome was the category of food products, beverages and tobacco products which contributed 3.9 percentage points.

The inflation forecast of the SARB has deteriorated since the previous meeting of the MPC. Headline inflation is now expected to only return to within the target range during the final quarter of 2017, and to average 6.2% for the year, compared with 5.8% in the previous forecast. The forecast for 2018 is more or less unchanged at an average of 5.5%. The peak of the forecast remains at 6.6%, which was recorded in the final quarter of 2016, and this level is now expected to persist in the first quarter of 2017. This deterioration is mainly due to changed assumptions regarding international oil prices, the domestic fuel prices and the outlook for food prices, which more than offset the more favourable exchange rate assumption.

By contrast, the forecast for core inflation is unchanged, averaging 5.5% and 5.2% in 2017 and 2018 respectively.

Inflation expectations as reflected in the survey conducted by the Bureau for Economic Research (BER) during the fourth quarter of 2016 showed average inflation expectations for 2017, declining from 6.0% in the third quarter to 5.8%. The same outcome is expected for 2018 as well as for five-year inflation expectations. Despite the slight moderation, expectations remain more or less anchored at the upper end of the target range, but with a narrower divergence between the different groups of respondents than is usually the case. The expectations of these groups ranged from 5.6% to 6.0% for 2017, and from 5.4% to 6.0% for 2018. The outcome may have been distorted by the marked decline of 0.6 percentage points for the trade union respondents.

The median annual inflation expectations of market analysts as reflected in the Reuters Econometer survey are relatively unchanged at 5.8% and 5.5% for 2017 and 2018. Bond market expectations implicit in the break-even inflation rates have declined across all maturities since the previous meeting, though they remain above the target range.

The global economic outlook remains uncertain, despite increased optimism regarding US growth following the US presidential elections. There is still a great deal of uncertainty regarding the policies of the new administration, particularly with respect to the size of the promised fiscal stimulus. While some of the initial optimism has since been tempered somewhat, US growth is expected to be relatively strong, but with some downside risks posed by a stronger dollar. Uncertainty also persists regarding the prospects for the UK economy, as the terms of the disengagement from the European Union (EU) are unlikely to be resolved for some time. The steady but slow growth recovery in the eurozone is expected to continue, but upcoming elections in a number of countries could pose risks to the outlook, alongside ongoing concerns about the prospects for the Italian economy.

The outlook for emerging markets is also unclear, given conflicting developments. Commodity prices, especially industrial commodities, have risen in recent months, but protectionist threats from the US, if carried through, could undermine world trade and have an adverse effect on emerging markets in particular. These countries are also highly dependent on Chinese growth, which is expected to remain above the 6% level. However, given the credit-driven nature of recent Chinese growth, there are fears of an unsustainable credit bubble which could expose financial sector vulnerabilities and undermine the growth outlook.

There are tentative signs of global inflation edging up as fears of deflation recede amid higher energy and food prices. As expected, the US Federal Reserve tightened monetary policy in December and signalled further increases to come. However, the pace of increase is still expected to be relatively moderate amid a highly uncertain economic policy environment. Both the European Central Bank (ECB) and the Bank of Japan have maintained their highly accommodative policy stances. This divergence between the advanced economies is likely to persist for some time.

The rand has displayed a degree of resilience since the previous meeting of the MPC, having traded in a relatively narrow range of between R14.22 and R13.46 against the US dollar. Since the previous meeting, the rand has appreciated by 5.6% against the US dollar and by 4.2% on a trade-weighted basis. The rand was positively impacted by the decisions of the ratings agencies not to downgrade the sovereign foreign credit rating to sub-investment grade, although this remains a risk in the coming months. The limited response of the rand exchange rate to the increase in the US policy rate in mid-December suggests that the move had been largely priced in. A gradual pace of tightening is expected in the US, with the rand vulnerable to any upside surprises in this respect.

The rand has been positively affected by the improvement in the terms of trade, following the recent modest increase in commodity prices. Although the overall current account deficit is expected to narrow over the forecast period, it remains relatively wide. In line with the recent improved capital flows to emerging economy bond markets, non-residents have been net buyers of South African bonds since the beginning of the year, while equity net sales have continued. This follows persistent net sales of both bonds and equities during the last three months of 2016.

The domestic growth outlook remains weak and more or less unchanged since the previous meeting of the MPC. The SARB expects growth to have averaged 0.4% in 2016, although recent monthly data for the fourth quarter suggest that there may be a downside risk to this forecast. The forecast for 2017 has been revised down marginally to 1.1% (from 1.2%), and remains unchanged at 1.6% for 2018. This improved outlook relative to 2016 is consistent with the recent upward trend in the composite leading indicator of the SARB. By contrast, the Rand Merchant Bank (RMB)/BER Business Confidence Index declined again in the fourth quarter, following a recovery in the previous quarter. Much of this decline was driven by the new vehicle sector.

The recent monthly data paint a bleak picture for the fourth quarter of 2016. Mining production, which had improved in the second and third quarters, contracted in both October and November. However, improved commodity prices are expected to help the sector in the coming months. The manufacturing sector recorded low but positive growth in November, following a month-to-month decline in October. The Barclays Purchasing Managers' Index (PMI) declined further in December and recorded its fifth consecutive month below the neutral 50 level.

The low level of business confidence is reflected in the continued, but slower, contraction in real gross fixed capital formation. Gross fixed investment has contracted for four consecutive quarters, particularly in the private sector. This has contributed to the persistent labour market weakness, with formal non-agricultural employment (excluding temporary election-related employment) remaining unchanged in the year to the third quarter of 2016. The official unemployment rate increased to 27.1%, its highest level since the inception of the Quarterly Labour Force Survey in 2008.

Wage growth appears to be responding to the weak labour market environment. Year-on-year nominal wage growth per worker moderated for a fifth consecutive quarter in the third quarter of 2016, down to 5.8%. Following a small decline in labour productivity growth, nominal unit labour costs in the formal non-agricultural sector increased to 5.7%. The slower nominal wage growth per worker is consistent with the lower wage settlement rates reported by Andrew Levy Employment Publications.

Household consumption expenditure data paint a mixed picture. Growth in household consumption expenditure accelerated to 2.6% in the third quarter despite a further contraction in durable goods consumption. Real retail trade sales declined in October, but increased markedly in November on a month-to-month basis. By contrast, wholesale trade sales contracted in both months. Domestic new vehicle sales remained subdued following further declines in the final quarter of last year.

Notwithstanding some improvement, consumers remain under pressure and consumer confidence remains low, as indicated in the sharp contraction in the First National Bank (FNB)/BER Consumer Confidence Index in the fourth quarter. Households remain highly indebted despite a further moderation in the debt ratio and the subdued housing and equity markets have contributed to an absence of strong wealth effects. Slower wage growth along with stagnant employment growth and expected tax increases in the forthcoming budget are also likely to dampen consumption expenditure.

A further constraint to consumption expenditure growth has been the weak credit extension to the private sector, which, at 4.5% in November, was the lowest year-on-year growth since late 2010. While growth in credit extension to the household sector was particularly subdued, that to the corporate sector also moderated in the second half of 2016. The strongest decline was seen in mortgage credit extension for commercial property.

Food price inflation is expected to decline following good rainfall in parts of the country. Spot prices for both maize and wheat have declined significantly, and a markedly higher maize crop is expected this year. However, the impact on prices at the consumer level are yet to be felt, with meat prices likely to lag other food price categories as farmers restock their herds. Although the SARB's inflation forecast assumes that food price inflation has more or less peaked, the pace of moderation is expected to be slower than in the previous forecast. Food price inflation is now expected to average 7.0% during 2017, compared with 6.5% previously. Food price disinflation is expected to be constrained or delayed by higher fuel costs and a rising trend in global food prices.

Brent crude oil prices increased by over 20% to almost US$60 per barrel, in response to the Organization of the Petroleum Exporting Countries (OPEC)-brokered agreement to restrict production. Prices have since moderated to current levels of around US$55 per barrel. The sustainability of this agreement and its longer-term impact on prices is uncertain, given the possibility of offsetting developments. A number of oil producers were exempt from the agreement; there are incentives and scope for cartel members to exceed their quotas; and US shale producers have already increased production in response to higher prices. These factors are likely to constrain oil price increases. While the SARB's oil price assumption has been revised up, the trajectory is relatively flat. Despite the stronger rand exchange rate, the domestic price of 93 octane petrol increased by 50 cents per litre in January and a further increase can be expected in February.

The MPC has noted the marked deterioration in the inflation forecast since the previous meeting, as well as the extension of the expected breach of the upper level of the target range by a further two quarters. Inflation is now expected to return to within the target range in the final quarter of 2017. While this is a cause for concern, the main drivers of this deterioration are supply side shocks, in particular oil and food prices. The increase in the international oil price is not expected to be a start of a new oil price spiral. Various supply side factors are expected to constrain oil prices going forward in the absence of any major global political risks that would threaten production. While the food price forecast has been adversely affected by higher input costs, a steady decline in food price inflation is still expected.

The more favourable rand exchange rate has been an important factor in offsetting some of the negative impacts of these developments. Despite a turbulent second half of 2016, both domestically and globally, the rand has been relatively resilient. Furthermore, the current level of the rand is stronger than that implicit in the forecast, and pass-through to inflation continues to be relatively muted. Nevertheless it remains vulnerable to both domestic and external shocks.

As always, the approach of the MPC is to look through the first-round effects of exogenous shocks, but remain focused on the possible emergence of second-round effects, which could require a policy response. At this stage, the longer-term trajectory over the relevant policy horizon is unchanged, as is the forecast for core inflation. In particular, the MPC will take note of possible changes in the longer-term inflation expectations, which had shown tentative signs of moderation in the fourth quarter of 2016. The MPC assesses the risks to the inflation outlook to be moderately on the upside.

The domestic growth outlook has remained largely unchanged despite a possible weaker outcome in the fourth quarter of 2016. While some improvement is anticipated over the forecast period, growth is expected to remain below potential. The risks to the growth forecast are assessed to be broadly balanced. Growth prospects remain dependent on uncertain but tentatively improving global conditions and their impact on commodity prices. Domestically, some improvement in agricultural production can be expected. However, a significant improvement in growth prospects requires the implementation of structural reforms which could contribute to increased business and consumer confidence.

In light of these developments and the assessment of the balance of risks, the MPC has unanimously decided to keep the repurchase rate unchanged at 7.0% per annum.

The MPC remains focused on the medium- to longer-term inflation outlook, but the deterioration of the shorter-term outlook requires increased vigilance. Furthermore, the MPC remains concerned that the longer-term inflation trajectory continues to be uncomfortably close to the upper end of the target range. The MPC retains the view that we may be near the end of the hiking cycle. However, should second-round effects emerge that undermine the longer-term inflation outlook, there may be a reassessment of this view.

Summary of assumptions: Monetary Policy Committee meeting on 24 January 2017*

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%	3.2%	3.0%	2.8%	2.9%	3.1%
		(3.1%)				
2. International commodity prices in US$ (excluding oil)	-6.2%	-10.5%	-18.7%	-3.6%	9.9%	-4.2%
	(-6.4%)	(-9.8%)	(-19.3%)	(-4.5%)	(5.5%)	(1.0%)
3. Brent crude (US$/barrel)	108.8	99.2	52.5	43.6	56.0	60.0
				(44.0)	(53.5)	(57.5)
4. World food prices (US$)	-1.6%	-3.8%	-18.7%	-1.6%	6.0%	2.5%
					(5.5%)	
5. International wholesale prices	0.3%	-0.1%	-3.5%	-1.2%	1.5%	1.2%
					(1.1%)	
6. Real effective exchange rate of the rand (index 2010 = 100)	81.91	79.17	80.08	77.28	84.00	84.00
				(76.67)	(81.00)	(81.00)
7. Real effective exchange rate of the rand	-10.1%	-3.3%	1.1%	-3.5%	8.7%	0.0%
				(-4.3%)	(5.7%)	

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%	1.6%	1.0%	1.0%
				(1.5%)		
2. Administered prices	8.7%	6.7%	1.7%	5.3%	8.3%	7.6%
				(5.2%)	(6.4%	
– Petrol price	11.8%	7.2%	-10.7%	1.6%	12.8%	8.9%
				(1.4%)	(5.7%)	
– Electricity price	8.7%	7.2%	9.4%	9.3%	7.7%	8.0%
3. Potential growth	2.0%	1.7%	1.5%	1.3%	1.4%	1.5%
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 48 and 49.

Selected forecast results: Monetary Policy Meeting on 24 January 2017

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............................	4.1	4.6	4.7	4.9	4.6	6.5	6.2	6.0	6.6	6.4	6.6	6.2	6.2	5.9	6.2	5.4	5.4	5.5	5.6	5.5
									(6.6)	(6.4)	(6.1)	(5.7)	(5.8)	(5.5)	(5.8)	(5.5)	(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	5.7	5.6	5.7	5.7	5.5	5.3	5.5	5.1	5.2	5.2	5.3	5.2
									(5.8)	(5.6)	(5.6)	(5.6)	(5.5)	(5.4)	(5.5)	(5.2)	(5.2)	(5.2)	(5.3)	(5.2)

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

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%	1.1%	1.6%
					(1.2%)	
2. Current account as a ratio to nominal GDP.............................	-5.9	-5.3	-4.3	-4.1	-3.5	-4.1
				(-3.8)	(-4.3)	(-4.4)

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

Statement of the Monetary Policy Committee

30 March 2017

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

Since the previous meeting of the Monetary Policy Committee (MPC) the inflation outlook has improved. This was mainly due to the further appreciation of the rand exchange rate following the benign market reaction to the United States Federal Reserve (US Fed) monetary policy tightening as well as the significant narrowing of the domestic current account deficit. A more positive growth outlook in the advanced economies has also contributed to a more favourable environment for emerging markets generally. However, the recent heightened domestic political uncertainty has reversed some of these exchange rate gains, and the risk of further rand weakening overshadows the inflation outlook.

Domestic growth prospects remain constrained, although the low point of the cycle is probably behind us. Demand pressures are expected to remain weak amid low business and consumer confidence

The year-on-year inflation rate as measured by the consumer price index (CPI) for all urban areas moderated to 6.3% in February, from 6.6% in January, in line with the market consensus expectation. Food price inflation, which measured 10.0%, moderated for the second consecutive month following its recent peak of 12.0% in December. The contribution of the category of food and non-alcoholic beverages to the overall inflation outcome declined from 1.9 percentage points in January to 1.7 percentage points in February. The South African Reserve Bank's (SARB) measure of core inflation, which excludes food, fuel and electricity, measured 5.2%, down from 5.5%. This follows a recent peak of 5.9% in December 2016.

Producer price inflation for final manufactured goods measured 5.6% in February, compared with 5.9% in January. The category of food products, beverages and tobacco products decelerated for the sixth consecutive month to 8.4%, following its recent peak of 13.4% in August last year.

The inflation forecast of the SARB has improved, reversing most of the deterioration seen at the previous meeting of the MPC. Headline inflation is now expected to return to within the target range during the second quarter of 2017, compared with the fourth quarter previously, and to remain within the range for the rest of the forecast period. CPI inflation is expected to average 5.9% for the year, compared with 6.2% in the previous forecast, while the forecast for 2018 has moderated from an average of 5.5% to 5.4%. The forecast period has been extended to 2019, with an expected average of 5.5% for the year.

This improvement is mainly due to a more appreciated exchange rate assumption. Despite the recent depreciation, the current level of the rand is still consistent with the exchange rate assumption in the forecast. Although the international oil price assumption remains unchanged, the exchange rate is expected to lead to lower petrol price inflation and is reflected in a downward revision to the assumption for administered prices. This favourable trend is partially offset by a slower pace of disinflation in food and non-alcoholic beverages, driven by an expected acceleration in poultry prices in particular. Food price inflation is now expected to average 7.4% and 5.2% in 2017 and 2018, compared with 7.0% and 5.0% previously.

The forecast for core inflation is marginally lower than before, at an average of 5.4% in 2017, and unchanged at 5.2% in 2018. An average core inflation of 5.3% is expected in 2019.

Inflation expectations as measured by the Bureau for Economic Research (BER) show a deterioration over the near-term in particular. The average expectation for 2017 has increased from 5.8% to 6.2%, with the largest upward revisions coming from businesses and labour respondents. The average expectation for 2018 increased marginally from 5.8% to 5.9%, while the expected inflation for 2019 is 6.0%. By contrast, average inflation expectations over five years declined by 0.1 percentage point to 5.7%.

Median inflation expectations of economic analysts, as reflected in the Reuters Econometer survey conducted in March, are more or less unchanged since January. Inflation is expected to average 5.8% in 2017 and 5.5% and 5.4% in the coming two years, roughly in line with the SARB's forecast. Inflation expectations implicit in the break-even inflation rates (the yield differential between conventional bonds and inflation linked bonds) had declined since the previous meeting, but have since spiked following the recent depreciation of the rand, and remain above the 6.0% level for longer-dated maturities.

The global economy shows continued signs of a broad-based improvement. The growth outlook in the US remains favourable with business confidence indices at high levels. However, there is growing uncertainty about the timing and size of the expected fiscal stimulus. Tax reform may take longer than anticipated following the recent failure to repeal the Affordable Care Act.

Growth prospects in Japan and Europe are also more promising, with the Purchasing Manager's Index (PMI) reaching a six-year high in the euro area, led by the services sectors in France and Germany. The extent to which the sustainability of this improvement is dependent on the highly accommodative monetary policy stance is still unclear.

The outlook for emerging markets is also more positive, in part driven by the recovery in the advanced economies and stronger demand in China. Firmer commodity prices have also helped, but an oversupply of some commodities could limit these gains.

Global inflation provides a mixed picture with the recent decline in international oil prices threatening to reverse the broad-based increases in headline inflation in the advanced economies. Some inflation normalisation is evident in the US and the euro area, but Japan is showing less momentum in price and wage growth. Inflation in the United Kingdom is expected to overshoot the target for some time, as the economy adjusts to a weaker currency. Similarly, inflation experiences in a number of emerging economies have reflected divergent currency movements.

The US Fed raised its policy rate in March in response to the stronger inflation trend and improved growth outlook. While this action was widely expected, the gradual nature of the expected interest rate cycle implicit in the forward guidance surprised the markets. Policy rates are expected to remain at low levels for some time in most of the advanced economies until more favourable inflation and growth dynamics are more firmly entrenched.

For the past few months the rand exchange rate has been relatively resilient, along with a number of other emerging market currencies. While most measures of emerging market risk have narrowed over recent months, those for South Africa have widened again over the past few days. The rand has depreciated significantly in response to increased domestic political uncertainty and the exchange rate has re-emerged as an upside risk to the inflation outlook. Since the previous meeting of the MPC, the rand has appreciated by 3.9% against the US dollar, by 4.0% against the euro and by 3.4% on a trade-weighted basis.

The prospect of US monetary policy tightening has been seen as a risk to the exchange rate. However, the rand and other peer currencies strengthened in response to the Fed actions in March, indicative of revised market expectations of a more moderate tightening cycle than that priced in.

The rand has also been underpinned by favourable terms of trade trends. Furthermore, the improving trend of the deficit on the current account of the balance of payments has reduced the perceived vulnerability of the rand to possible capital flow reversals. However, while significant adjustment of the current account has occurred, the deficit is not expected to remain at the level seen in the fourth quarter of last year.

The domestic growth outlook remains weak following the negative growth recorded in the fourth quarter of 2016. The 2016 annual gross domestic product (GDP) growth of 0.3% is likely to have been the low point of the growth cycle, and a mild recovery is expected over the forecast period. The SARB's forecast for GDP growth has been revised up by 0.1 percentage points in both 2017 and 2018, to 1.2% and 1.7%, with growth of 2.0% forecast for 2019. While growth is still expected to be below estimated potential output growth of around 1.4% in the near term, the output gap is expected to narrow to some extent in the later part of the forecast period. The more favourable growth outlook is consistent with the SARB's leading indicator of economic activity, which has increased for six consecutive months.

The main drivers of growth are expected to be net exports and positive, albeit weak, household consumption expenditure growth. Some impetus is expected to come from fixed capital formation in the outer period of the forecast. At a sectoral level, the agricultural sector is expected to return to positive growth following good rains in a number of regions and improved maize crop estimates. A modest recovery in the manufacturing sector is expected following two consecutive months of the Absa PMI being above the neutral 50 point level, while the mining sector is forecast to respond to more favourable commodity prices.

Low growth in gross fixed capital formation remains a downside risk to growth in the short term. In 2016 gross fixed capital formation contracted for the first time since 2010, with the ratio of fixed capital formation to GDP declining from 20.4% in 2015 to 19.6% in 2016. Private sector investment remains particularly weak, having contracted for five successive quarters. This is reflected in the Rand Merchant Bank (RMB)/BER Business Confidence Index which increased marginally in the first quarter of 2017, but at 40 index points remains well below the neutral level of 50. The BER Manufacturing survey shows a sharp decline in expected capital investment over the next 12 months, with the political climate cited as the main reason.

The constrained growth outlook does not bode well for employment creation in the economy. According to the Quarterly Labour Force Survey, employment increased by 0.3% while the number of unemployed grew by 11.3% in the fourth quarter of 2016, compared to the fourth quarter of 2015. This resulted in an increase in the unemployment rate by 2.0 percentage points to 26.5%.

Consumption expenditure by households, which grew by 0.8% in 2016, remains subdued amid low consumer confidence. While growth of 2.2% was recorded in both of the final two quarters of 2016, negative retail and wholesale trade sales growth in December and January underscore the likely persistence of this weakness. New vehicle sales continued to decline in February, although exports increased significantly.

These trends are expected to persist as the impact of a higher tax burden, low employment growth and weak wealth effects take their toll on consumption expenditure. In addition, credit extension by banks to the private sector continues to grow at low rates, particularly to households, amid a further decline in the household debt to disposable income ratio. Expenditure will be supported to some extent by positive but moderate real income growth.

Fiscal policy as outlined in the recent budget remains committed to a steady pace of deficit reduction over the next three years. Lower tax revenues relative to budget – partly a consequence of slower economic growth – have resulted in a shortfall to be filled by a combination of lower expenditure growth, increased fuel levies and other excise duties, and a number of tax changes. These include limited compensation for fiscal drag and a higher marginal tax bracket for high-income earners. The tax increases are expected to act as a drag on household consumption expenditure, particularly for middle and upper income earners.

International oil prices have declined following increased oil inventories and weak compliance with the Organization of the Petroleum Exporting Countries (OPEC)-brokered deal to restrict output, and an increase in shale gas production in the US. Although Brent crude oil prices increased by about 10% in the wake of this agreement, these gains have been largely reversed, with oil prices back in the region of US$50 per barrel for the past three weeks. The impact on the domestic petrol price will be evident in April, when a reduction is expected, despite the 39 cent increase in the Road Accident Fund and fuel levies provided for in the February budget.

Since the previous MPC meeting the inflation outlook has improved. However, the risk to the inflation forecast has been affected by the reaction of the exchange rate to the current elevated levels of political uncertainty. At current levels of around R13.00 against the US dollar, the exchange rate is still moderately stronger than the level implied in the exchange rate assumption in the forecast. However, the rand is likely to react further to unfolding developments until a greater degree of certainty and confidence is restored. The possibility of significant overshooting of the exchange rate in the short run also cannot be ruled out. As always, the MPC will attempt to 'look through' short term fluctuations and focus on longer term trends in its policy settings.

The MPC remains concerned about the elevated level of inflation expectations. While the near-term reversal was not unexpected, given the deterioration of the short-term inflation outlook in January, the longer term expectations remain anchored uncomfortably at the upper end of the target range.

Not all the inflation risk factors are on the upside. The deterioration in the forecast at the previous meeting was partly due to a higher international oil price assumption. This assumption has not been adjusted to reflect the recent market developments. There is a downside risk to this assumption, given the possibility of these more moderate trends persisting.

A further downside risk comes from electricity price increases, which could turn out to be lower than the 8.0% currently in the forecast from mid-2017. The final price determination by the energy regulator is yet to be announced.

Overall, the MPC assesses the risk to the inflation outlook to be moderately on the upside, mainly due to the high degree of exchange rate uncertainty.

The MPC sees no evidence of significant demand pressures impacting on inflation. The growth outlook remains disappointing, and the MPC is concerned that increased political uncertainty could impact negatively on private sector investment and household consumption expenditure, and further undermine employment growth. The risks to the growth outlook are therefore assessed to be on the downside.

In light of these developments, the MPC has decided to keep the repurchase rate unchanged at 7.0% per annum. Five members preferred an unchanged stance and one member preferred a 25 basis point reduction.

The MPC is of the view that we may have reached the end of the tightening cycle. However, the Committee would like to see a more sustained improvement in the inflation outlook before reducing rates. This assessment may, however, change if the inflation outlook and the risks to the outlook deteriorate.

Summary of assumptions: Monetary Policy Committee meeting on 30 March 2017*

1. Foreign-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2014	2015	2016	2017	2018	2019
1. Real GDP growth in South Africa's major trading-partner countries...	3.3%	3.2%	2.9%	3.1%	3.3%	3.3%
	(3.2%)	(3.0%)	(2.8%)	(2.9%)	(3.1%)	
2. International commodity prices in US$ (excluding oil).........................	-10.5%	-18.7%	-3.6%	15.5%	-4.0%	2.5%
				(9.9%)	(-4.2%)	
3. Brent crude (US$/barrel)	99.2	52.5	43.6	56.0	60.0	62.0
4. World food prices (US$)	-3.8%	-18.7%	-1.5%	7.0%	2.7%	3.4%
			(-1.6%)	(6.0%)	(2.5%)	
5. International wholesale prices	-0.1%	-3.5%	-0.8%	3.0%	2.0%	2.0%
			(-1.2%)	(1.5%)	(1.2%)	
6. Real effective exchange rate of the rand (index 2010 = 100)	79.17	80.08	77.08	87.25	87.00	87.00
			(77.28)	(84.00)	(84.00)	
7. Real effective exchange rate of the rand...	-3.3%	1.1%	-3.7%	13.2%	-0.3%	0.0%
			(-3.5%)	(8.7%)	(0.0%)	

2. Domestic-sector assumptions

Percentage changes (unless otherwise indicated)	Actual			Forecast		
	2014	2015	2016	2017	2018	2019
1. Real government consumption expenditure	1.1%	0.5%	2.0%	1.0%	1.0%	1.0%
	(1.8%)	(0.2%)	(1.6%)			
2. Administered prices..	6.7%	1.7%	5.3%	6.7%	6.7%	6.4%
				(8.3%)	(7.6%)	
– Petrol price	7.2%	-10.7%	1.6%	7.8%	6.9%	6.0%
				(12.8%)	(8.9%)	
– Electricity price..	7.2%	9.4%	9.3%	7.7%	8.0%	8.0%
3. Potential growth..	1.7%	1.5%	1.3%	1.4%	1.5%	1.6%
4. Repurchase rate (per cent)...	5.57	5.89	6.91	7.00	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 48 and 49.

Selected forecast results: Monetary Policy Meeting on 30 March 2017

Forecast results (quarterly)

Year-on-year percentage change	Actual					Forecast														
	1	2	3	4	2016	1	2	3	4	2017	1	2	3	4	2018	1	2	3	4	2019
1. Headline inflation	6.5	6.2	6.0	6.6	6.3	6.4	5.8	5.8	5.6	5.9	5.2	5.4	5.5	5.5	5.4	5.5	5.5	5.5	5.5	5.5
						(6.6)	(6.2)	(6.2)	(5.9)	(6.2)	(5.4)	(5.4)	(5.5)	(5.6)	(5.5)					
2. Core inflation	5.5	5.5	5.7	5.7	5.6	5.4	5.5	5.4	5.3	5.4	5.1	5.1	5.2	5.3	5.2	5.3	5.3	5.3	5.3	5.3
						(5.7)	(5.7)	(5.5)	(5.3)	(5.5)	(5.1)	(5.2)	(5.2)	(5.3)	(5.2)					

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

Forecast results (annual)

Per cent	Actual			Forecast		
	2014	2015	2016	2017	2018	2019
1. Real gross domestic product (GDP) growth	1.7%	1.3%	0.3%	1.2%	1.7%	2.0%
	(1.6)		(0.4%)	(1.1%)	(1.6%)	
2. Current account as a ratio to nominal GDP	-5.3	-4.4	-3.3	-3.2	-3.9	-4.0
		(-4.3)	(-4.1)	(-3.5)	(-4.1)	

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 via the International Monetary Fund's (IMF) Global Projection Model (GPM), 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 (euro area, China, the United States (US) and Japan), while 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 demand/supply pressures as reflected by the pace of growth in the trading partner countries.

3. The **Brent crude oil price** is expressed in US dollars per barrel. The assumption incorporates the analysis of 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** are the composite food price index of the United Nations Food and Agriculture Organization (FAO) in US dollars. It is weighted via 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 of South Africa's major trading partners, as per the South African Reserve Bank's (SARB) official real effective exchange rate calculation. Although individual country consumer price index (CPI) forecasts provide a good indication for international wholesale price pressures, the key drivers for 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. **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 counties (as reflected in the SARB *Quarterly Bulletin*). 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, euro, Chinese yuan, UK 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 for 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 yearly, the most recent actual data points also play a significant role in the assumptions process.

2. **Administered prices** represent the total of the regulated and non-regulated administered prices as reflected by Statistics South Africa (Stats SA). Their weight in the CPI basket is 18.48% (16.17% from January 2017) and the assumed trend over the forecast period is largely determined by the expected pace of growth in petrol prices, electricity tariffs, school fees, water and other municipal assessment rates.

   Petrol price is an administered price and comprises 5.68% (4.58% from January 2017) of the CPI basket. The basic fuel price (which currently accounts for roughly half 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 area, 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.

   Electricity price is an administered price measured at the municipal level with a weight of 4.13% (3.75% from January 2017) in the headline CPI basket. Electricity price adjustments generally take place in the months of July and August of each year, and the assumed pace of increase over the forecast period reflects the multi-year price determination (MYPD) agreement between Eskom and the National Energy Regulator of South Africa (NERSA) with a slight adjustment for measurement at municipal level.

3. The pace of **potential growth** is derived from the SARB'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 (SARB, Working Paper Series, WP/14/08).

4. The **repurchase rate** (repo rate) is the official monetary policy instrument and represents the interest rate at which banks borrow money from the SARB. 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, that is, 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.

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 SARB's forecasts and discussions refer to headline CPI excluding food, non-alcoholic beverages, fuel 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 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 SARB 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.

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 20 currencies. The weights of the five major currencies are as follows: euro (29.26%), Chinese yuan (20.54%), US dollar (13.72%), Japanese yen (6.03%) and the British pound (5.82%). Index: 2010 = 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 SARB.

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.

Abbreviations

AFE	average forecast error
Alsi	All-Share Index
BER	Bureau for Economic Research
BIS	Bank for International Settlements
BRICS	Brazil, Russia, India, China and South Africa
CAD	current account deficit
CDS	credit default swap
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
EIA	Energy Information Administration
ELMI	Emerging Local Markets Index
EMBI+	JPMorgan Emerging Market Bond Index Plus
EU	European Union
FAO	Food and Agriculture Organization
FNB	First National Bank
Fed	United States Federal Reserve
FOMC	Federal Open Market Committee
G3	Group of Three
GDP	gross domestic product
IMF	International Monetary Fund
MPC	Monetary Policy Committee
MPR	*Monetary Policy Review*
MTBPS	*Medium Term Budget Policy Statement*
MYPD	multi-year price determination
NAB	non-alcoholic beverages
NERSA	National Energy Regulator of South Africa
OPEC	Organization of the Petroleum Exporting Countries
PCE	Personal Consumption Expenditure
PMI	Purchasing Managers' Index
PPI	producer price index
RCA	Regulatory Clearing Account
REER	real effective exchange rate
repo (rate)	repurchase (rate)
RMB	Rand Merchant Bank
RMSE	root mean square error
S&P	Standard and Poor's
SACU	Southern African Customs Union
SARB	South African Reserve Bank
SOCs	state-owned companies
Stats SA	Statistics South Africa
TPP	Trans-Pacific Partnership
UK	United Kingdom
ULC	unit labour cost
US	United States
WGBI	World Government Bond Index