MONETARY POLICY REVIEW

APRIL 2022

SOUTH AFRICAN RESERVE BANK

Enquiries relating to this *Monetary Policy Review* should be addressed to:

Head: Economic Research Department
South African Reserve Bank
P O Box 427
Pretoria 0001

Tel. +27 12 313 4416

www.resbank.co.za

ISSN: 1609-3194

Produced by the Publishing Section of the South African Reserve Bank

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 supports international competitiveness. The goal of price stability is quantified through an inflation target, which is set in consultation with government. The target is a range of 3–6%, which has been in place since 2000.

The SARB has full 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 and other senior officials of the SARB.

The inflation-targeting framework is flexible, meaning that policymakers will seek to look through temporary shocks, thereby avoiding excessive volatility in interest rates and economic output. The MPC takes a forward-looking approach to account for the time lags between policy adjustments and economic effects. MPC decisions are communicated at a press conference at the end of each meeting, accompanied by a comprehensive statement.

The *Monetary Policy Review (MPR)* is published twice a year and is aimed at broadening the public's understanding of the objectives and conduct of monetary policy. The *MPR* covers domestic and international developments that affect the monetary policy stance.

In normal circumstances, the *MPR* is presented by senior officials of the SARB in major centres across South Africa. However, due to COVID-19, this *MPR* will be launched virtually.

Questions about the publication may be directed to Marlene Hugo at Marlene.Hugo@resbank.co.za.

Contents

Beyond the recovery: ensuring price stability

Executive summary and overview of the policy stance 1
A disrupted global recovery 11
Financial markets: three large shocks 16
Real economy: recovery and its discontents 22
Price developments: fading disinflationary effects, heightened risks 32
Conclusion 44

Boxes

Box 1 The Phillips curve and monetary policy in South Africa 8
Box 2 Neutral real rates in the post-COVID-19 pandemic era 9
Box 3 Global supply chain bottlenecks contributing to inflation 15
Box 4 Evolution of the sovereign yield curve in a pandemic era 20
Box 5 Reforming the South African Reserve Bank's monetary policy implementation framework 21
Box 6 Impact of GDP revisions on the output gap 29
Box 7 The real effective exchange rate and the terms of trade 30
Box 8 What do high producer prices tell us about CPI inflation? 41
Box 9 Administered price inflation in South Africa is well above headline inflation 42

Statements issued by Lesetja Kganyago, Governor of the South African Reserve Bank

Statement of the Monetary Policy Committee
18 November 2021 46

Statement of the Monetary Policy Committee
27 January 2022 51

Statement of the Monetary Policy Committee
24 March 2022 56

Glossary 63

Abbreviations 65

Beyond the recovery: ensuring price stability

Executive summary and overview of the policy stance

In response to rising inflation and a closing output gap, the Monetary Policy Committee (MPC) has raised the repurchase (repo) rate by a cumulative 75 basis points since the previous edition of the Monetary Policy Review (MPR)*, bringing it to 4.25%. The policy stance remained strongly supportive of the economic recovery over the six-month period under review. By the fourth quarter of 2021, the economy had recovered to above 98% of the 2019 gross domestic product (GDP) level. Economic growth this year is expected to be somewhat stronger than previously forecast on stronger commodity export prices. Headline inflation, however, rose sharply from 5% in September 2021 to 5.9% in December, before moderating somewhat. Inflation was pushed higher by large increases in fuel and food prices amid a more modest pickup in core inflation. Headline inflation is expected to average 5.8% in 2022, well above the 4.9% forecasted in January this year, and with risks tilted to the upside.*

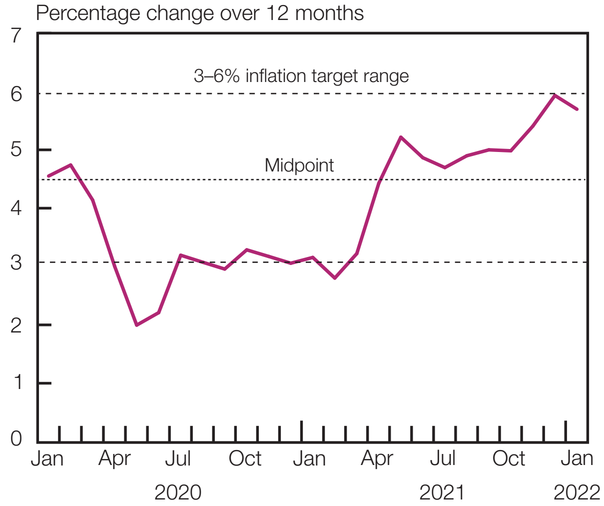
Global economic activity rebounded sharply over the past year, led by advanced economies and underpinned by ample policy support and progress made with COVID-19 vaccinations. Emerging market economies recovered at a slower pace than advanced economies, and for many of them activity remains somewhat below 2019 levels. Persistent supply constraints and robust demand growth at a global level, however, continue to give strong impetus to inflation, which accelerated rapidly in a wide range of countries, both advanced and emerging. As a result, policy tightening has been expected for some time.

In this complex environment, economic uncertainty spiked in February 2022 with the Russian invasion of Ukraine. Oil prices rose sharply to above US$130 per barrel in early March before retreating somewhat, followed by wheat and other grains prices. Higher input prices and disruptions to global trade have increased downside risks to global growth and raised forecasts for global inflation. The South African Reserve Bank (SARB) expects global growth to decelerate sharply to 3.7% in 2022, down from an estimated 6.4% in 2021, and to remain modest over the medium term.

Up until February, the foremost risk to global growth in 2022 was an acute rise and then progressively non-transitory inflation.[1] Inflation was given impetus by the massive fiscal support provided by advanced economies, an accumulation

Headline inflation

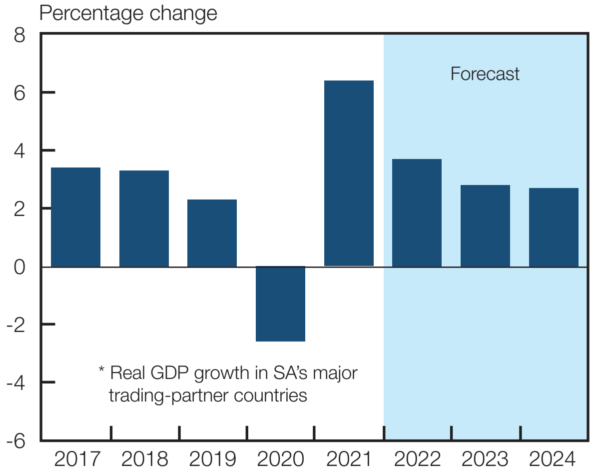
Percentage change over 12 months



Sources: Stats SA and SARB

Global growth*

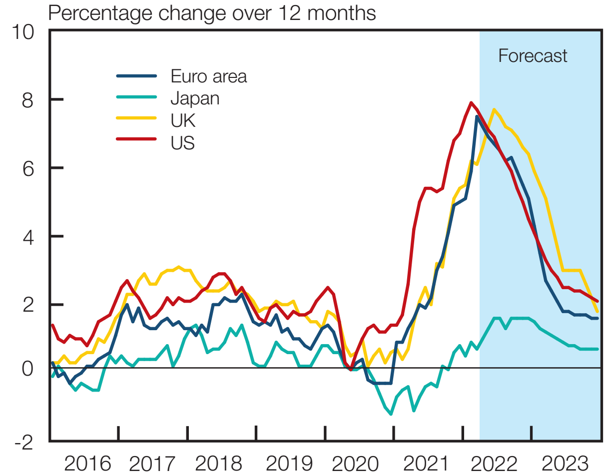
Percentage change



Source: SARB

Headline consumer inflation

Percentage change over 12 months

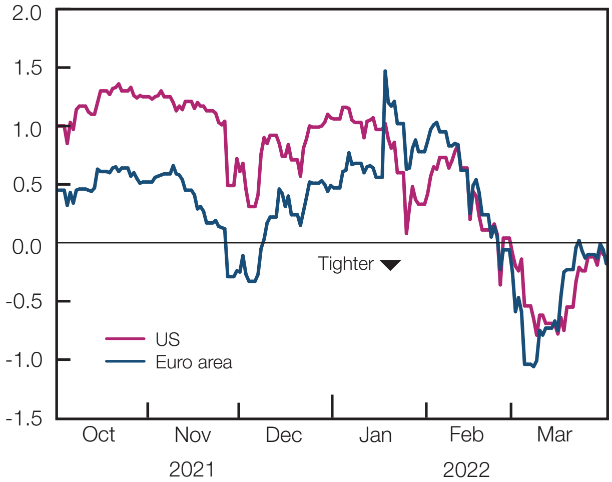


Sources: Bloomberg and Haver

1 Inflation for February 2022 in the Group of Three countries and in the United Kingdom (UK) more than trebled the 2% targets for these countries, with 7.9% recorded in the United States and 6.2% in the UK. The euro area registered a record high of 7.5% in March, after recording 6.2% in February. Japan is the exception, recording only 0.9% in February.

Financial conditions

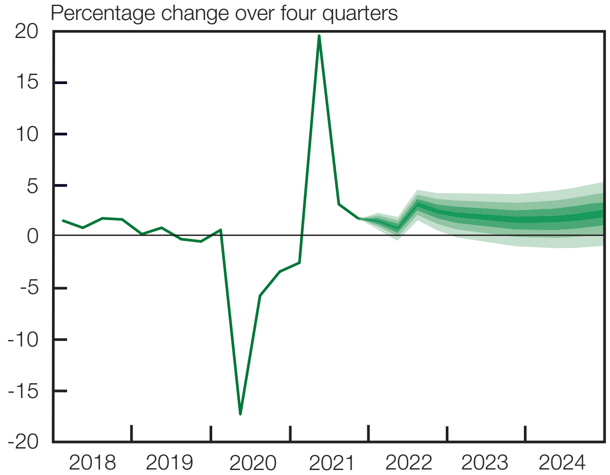
Index



Source: Bloomberg

Real GDP growth*

Percentage change over four quarters

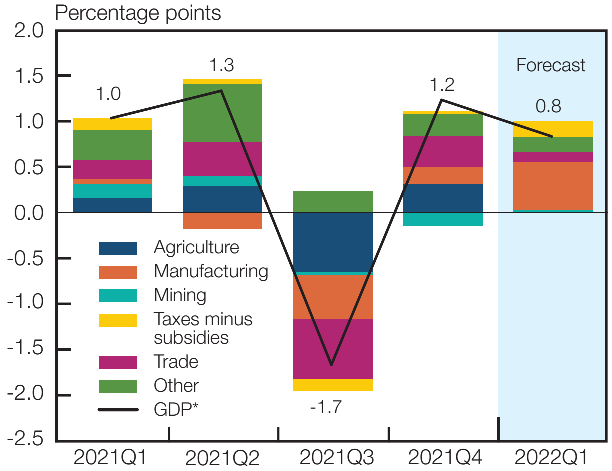


* The bands around the central projection show confidence intervals of 10%, 30%, 50% and 70%.
This chart shows seasonally adjusted data, as used in the QPM.

Sources: Stats SA and SARB

Contributions to GDP growth

Percentage points



* Percentage change from quarter to quarter

Sources: Stats SA and SARB

of household savings, and expansive monetary conditions which led to a surge in demand for consumer goods as restrictions eased. The supply response, however, remained constrained due to supply chain bottlenecks and COVID-19 restrictions that affected production activity. Price pressures further emanated from the tightening in labour markets in some advanced economies (e.g. the United States (US) and the United Kindom (UK)), and sharply higher oil and global food prices. Major emerging markets, particularly Brazil, Mexico and Turkey, also experienced markedly higher inflation from fuel and food, though demand pressures were also evident. For other emerging markets, such as South Africa, the inflation build-up was less pronounced early in the recovery period but has ramped up quickly over the past year.

In response to climbing inflation and its increasingly less transitory features, the major global central banks moved faster to normalise rates. The US Federal Reserve (Fed) raised the federal funds rate by 25 basis points in March after two years of rates remaining at the effective zero lower bound. Meanwhile, the Bank of England has raised its policy rate three times since December 2021, bringing it to 0.75% in March 2022.[2] For emerging markets, pressure on policy rates has also increased with inflation and heightened risk to capital flows and exchange rates.

Domestic economic outlook

The domestic economy grew by 4.9% in 2021 – its fastest pace of growth since 2007 – after the sharp contraction of 6.4% in 2020. This brought South Africa's GDP to within 2 percentage points of the 2019 level. This was achieved despite the recovery being temporarily derailed by the steep decline in GDP (1.7% quarter on quarter, seasonally adjusted) during the third quarter of 2021, prompted by the July riots in KwaZulu-Natal and Gauteng, among other factors. The economy would have surpassed pre-COVID-19 economic output in the first quarter of 2022 had the third quarter's events not transpired.[3]

The economy's recovery from the pandemic has featured a gradual resumption of consumption spending, a return to positive private investment growth, and sustained, robust terms of trade gains from high global commodity export prices. Fiscal and monetary policy have been strongly accommodative, adding directly to demand and reducing debt-service costs to ease borrowers' cash flow and encourage more credit demand. Spending by households also benefitted from the rebound in wages, a recovery in asset prices as well as increased social transfers.

2 The European Central Bank has not provided a firm indication on the possible rate path, and prospects may now have been dampened by the Russia–Ukraine war, which could create stagflationary conditions for the region.

3 The economy grew by 1.2% quarter on quarter in the fourth quarter of 2021, lower than the SARB's estimate of 1.4% at the January 2022 MPC meeting.

While the recovery of the economy has progressed well, the pandemic has scarred some sectors severely. The most impacted are the construction, transport and trade sectors which remain well below 2019 output levels. As these are more labour-intensive sectors, reduced output levels help explain why overall employment levels have yet to recover. Some firms appear to have delayed re-hiring as sales have been slow, while others may have achieved efficiency gains.[4]

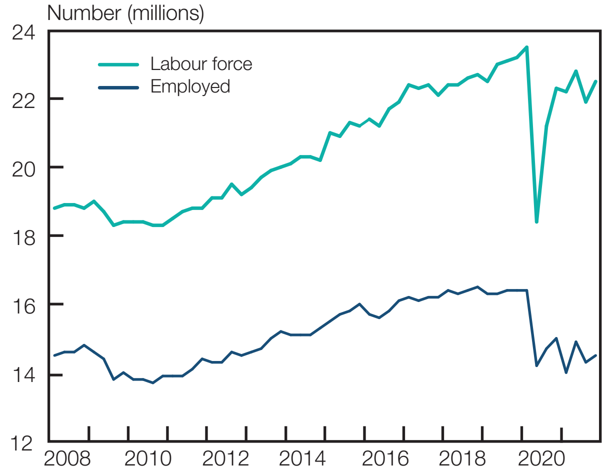
At the aggregate sector level, the primary sector has expanded beyond its 2019 size, benefitting from favourable weather conditions (agriculture) and elevated global commodity prices (mining).[5] The secondary sector, at 90% of its 2019 output level, remains furthest behind.[6] The tertiary sector has surpassed its 2019 output level, despite persistent weakness in transport and trade activity. These two subsectors are expected to rebound as the pandemic fades and help to boost employment. However, inadequate electricity supply remains a serious drag on growth and impedes the contribution of demand to the economy.

South Africa's trajectory through the pandemic and into the recovery phase has demonstrated the overall macroeconomic resilience of the economy – benefiting from the terms of trade despite globally weak output, and able to partially finance higher public spending through greater saving and drawing on external assets. This resilience is perhaps best displayed in the external balances, particularly the current account, which shows the net borrowing needs of the economy given a specific level of spending by households, firms and the public sector. As demand slowed into the pandemic, savings by corporates and households surged, helping drive the current account into surplus, and together with revenue windfalls, provided relatively cheap financing to public spending. The current account, which reached 3.7% of GDP in 2021, supported the rand, and contributed to less inflationary pressure than had been expected when the crisis first unfolded. The recent resurgence in commodity export prices could prolong the surplus until 2024, even as imports continue to recover.

Despite borrowing requirements remaining high, South Africa's fiscal ratios improved markedly, underpinned by the revenue recovery and commodity windfalls. Public debt is now projected to stabilise at 75.1% of GDP in 2024/25, 3 percentage points lower than the projection in the 2021 *Medium Term Budget Policy Statement (MTBPS).* A permanent reduction in fiscal risk should, all other things being equal, lower long-term borrowing costs, in turn supporting investment. The achievement of fiscal targets remains sensitive to additional support to state-owned

Labour trends

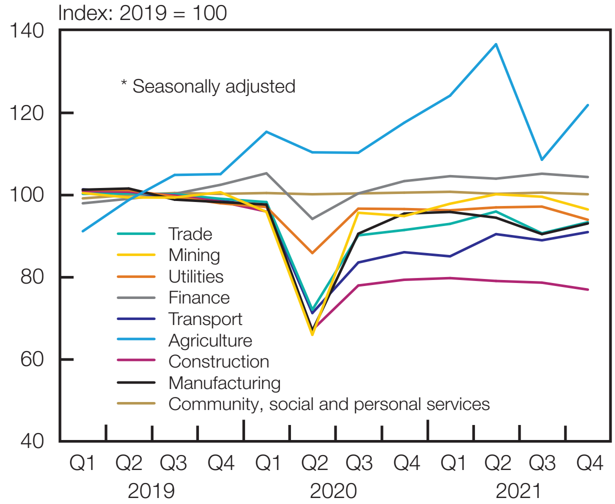
Number (millions)



Source: Stats SA

GDP levels*

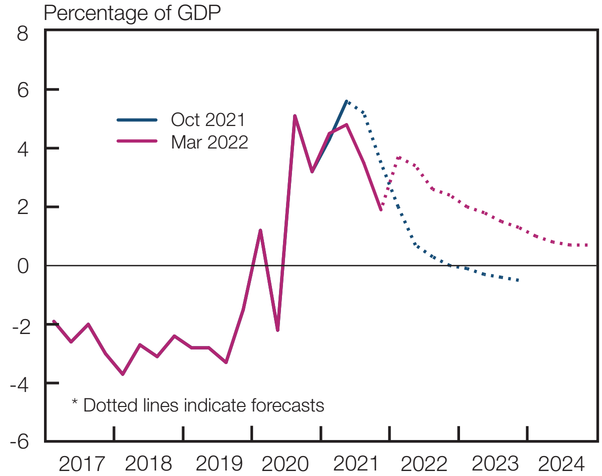
Index: 2019 = 100



Sources: Stats SA and SARB

Current account balance

Percentage of GDP



Source: SARB

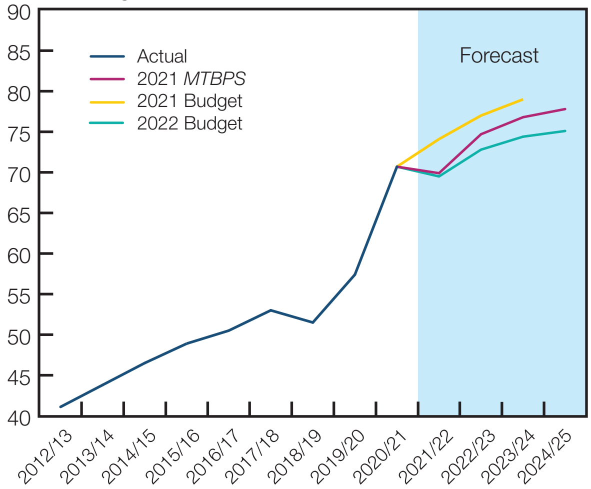
4 See page 3 in the October 2021 *MPR.*

5 Mining would have performed significantly better if not for transport logistics challenges, confrontational labour relations and load-shedding.

6 Construction contracted further in 2021, continuing a downward trend that began in 2017. After growing by 0.5% in the first quarter of 2021, the sector contracted by 0.8%, 0.6% and 2.2% in the second, third and fourth quarters respectively.

Public debt

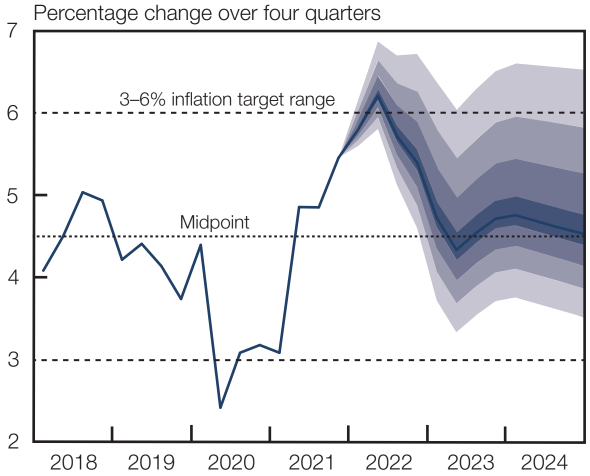
Percentage of GDP



Source: National Treasury

Targeted inflation forecast*

Percentage change over four quarters

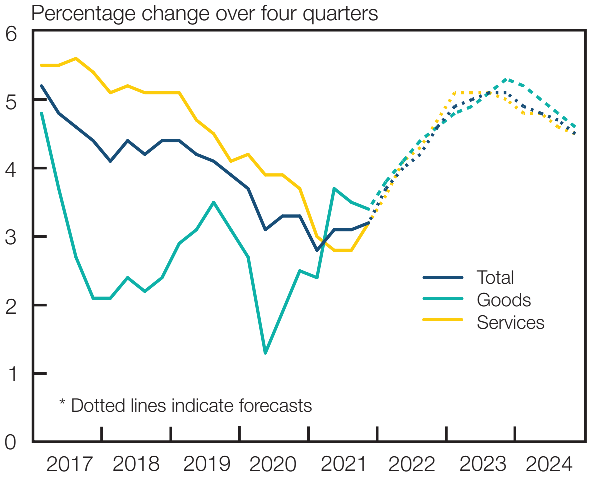


* The bands around the central projection show confidence intervals of 10%, 30%, 50% and 70%.

Sources: Stats SA and SARB

Core inflation*

Percentage change over four quarters



Source: SARB

enterprises, growth of the public sector wage bill, and the introduction of new and permanent spending streams funded by temporary revenues.

Unlike in the recovery phase, the growth outlook now is more subdued, as deep-seated structural constraints are expected to limit realised and potential growth.[7] The economy is expected to grow at an annual average rate of 1.9%, while potential is much weaker at 0.9% over the outlook period.[8] Despite medium-term growth remaining disappointingly low, the economy is expanding faster than potential, resulting in the output gap closing a little faster and disinflationary pressures moderating further, as seen in the trajectory of core inflation.

South Africa's inflation rate shifted markedly higher during the period under review, underpinned by soaring fuel prices and elevated food inflation, with rising core inflation adding to pressures, though from a low base. After averaging 4.5% in 2021, up from 3.3% in 2020, headline consumer price index (CPI) inflation is projected at 5.8% in 2022 (4.2% in the previous *MPR*). Administered price inflation (12.2% in 2022) will again exert upward pressure on headline inflation, having risen persistently above the upper limit of the inflation target range.[9]

In contrast with headline inflation, core inflation has remained subdued since the release of the previous *MPR*, kept down by unusually low insurance price inflation and despite a broad rise in services prices from low levels. Core inflation averaged 3.1% in 2021, down from 3.3% in 2020, before increasing to a projected 3.7% in the first quarter of this year. Sharply higher imported inflation and the closing output gap are forecast to lift core inflation to 4.2% in 2022 and 5.0% in 2023, before receding somewhat to 4.7% in 2024.

Looking ahead, domestic inflation could surprise higher if the hostilities in Ukraine continue to intensify or if oil and gas supplies are additionally constrained. The upward drift in inflation expectations and sharply higher producer prices further tilt the inflation risk to the upside.[10] Higher expected wage growth, a somewhat weaker rand and further advances in global goods prices could exert additional upward pressure on headline inflation.

---

7 The low potential growth rate reflects, among other things, weak investment, persistent electricity supply constraints and skills shortages.

8 Growth in GDP was revised slightly higher to 2.0% in 2022, up from 1.7% in the October 2021 *MPR*, as the resurgence in the commodity export prices is expected to raise growth through increased exports, terms of trade gains, and the income and wealth effects from higher prices, countering the adverse effects from higher fuel prices and inflation.

9 The recent announcement of a temporary R1.50 reduction in the general fuel levy is expected to directly lower headline inflation by between 0.4 percentage points and 0.5 percentage points in April and 0.3 percentage points in May. Consequently, the average inflation for the second quarter of 2022 drops to 5.9%, lower than the Quarterly Projection Model's (QPM) projected second-quarter rate of 6.2% at the March MPC meeting.

10 The average surveyed inflation expectations for 2023 edged higher to 5.0% during the first quarter of 2022, up from 4.7% in the fourth quarter of 2021.

Overview of the policy stance

Over the three meetings covered in this edition of the *MPR* (November 2021, January 2022 and March 2022), the MPC raised the repo rate three times, bringing it to 4.25% after leaving it unchanged at 3.5% from July 2020. Despite the upward adjustment to the repo rate, the current rate broadly keeps the underlying degree of support to the economy where it has been for some time.

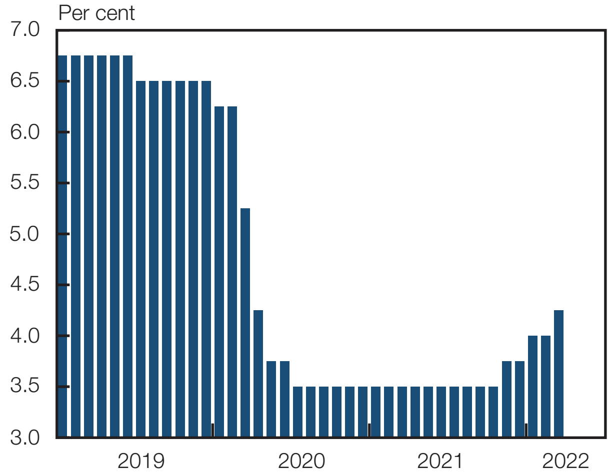
The Quarterly Projection Model (QPM) adjusts the repo rate to achieve inflation outcomes at the target midpoint over the forecast horizon of three years, depending on the near-term shocks buffeting the economy. Because of the strong upward shift in inflation outcomes, the QPM adjusted to show a faster, yet still gradual, reduction in monetary accommodation.

The normalisation of the repo rate began with a 25 basis point increase in November 2021, followed by two further hikes of the same magnitude at the January and March 2022 meetings. At the November meeting, the QPM-implied repo rate path signalled an immediate 25 basis point increase in the repo rate, followed by a 50 basis point increase in the first quarter of 2022. Total rate hikes over the forecast period amounted to 325 basis points. The MPC unanimously voted to raise the repo rate by 25 basis points at this meeting, setting policy normalisation in motion. The pace of policy normalisation thus far has been gradual, in some contrast to the sharp rise in inflation which is projected to breach the upper limit of the target range in the second quarter of this year. Inflation is, however, expected to return to the target midpoint in 2023.[11]

The period between the November 2021 and the January 2022 meetings saw the release of the third-quarter GDP data. This showed a much larger contraction than was expected, resulting in the output gap widening. At the same time, inflation expectations drifted slightly higher, labour costs ticked up, and the rand weakened somewhat. Fuel and food inflation were both projected higher over the near term, but fuel inflation was seen lower over the medium term, pulling the three-to-five-quarters-ahead average inflation lower to 4.5%. Lower inflation at this horizon directly reduces upward pressure on rates and, at the same time, narrows the real repo rate gap. Consequently, the QPM shaved 25 basis points off the November-implied repo hike for the first quarter of 2022. The MPC voted to raise the repo rate by 25 basis points at the January meeting, with four members expressing a preference for an increase while one member preferred no change.

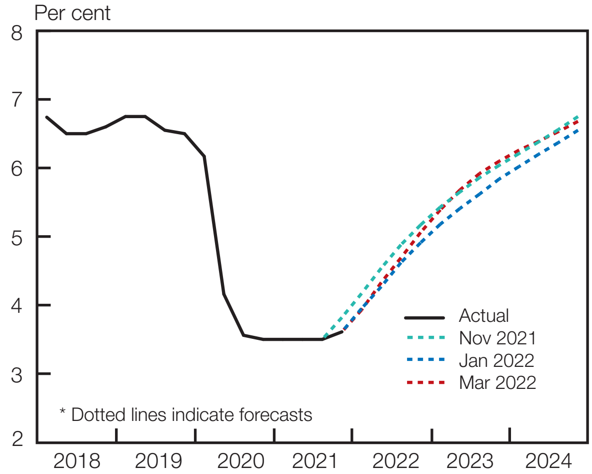
11 The projection does not take into account the recent announcement of a R1.50 temporary fuel price relief.

Repo rate



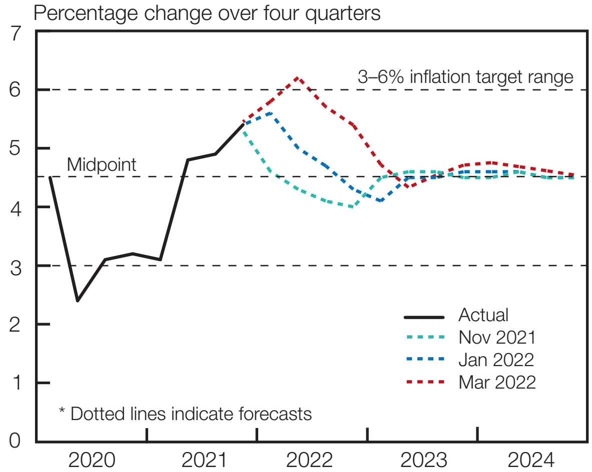
Source: SARB

Evolution of repo rate forecasts*



Source: SARB

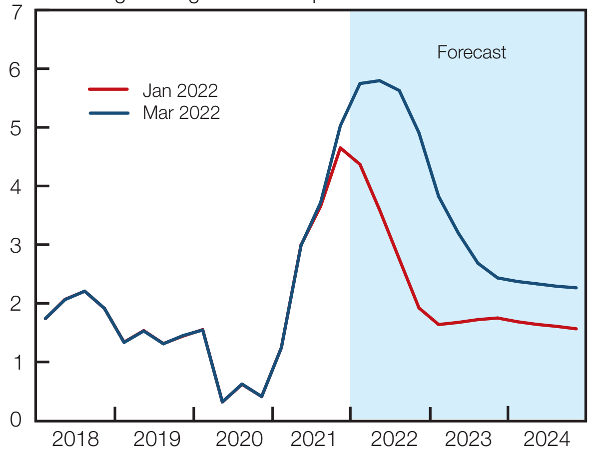
Evolution of headline inflation forecasts*



Sources: Stats SA and SARB

G3 inflation

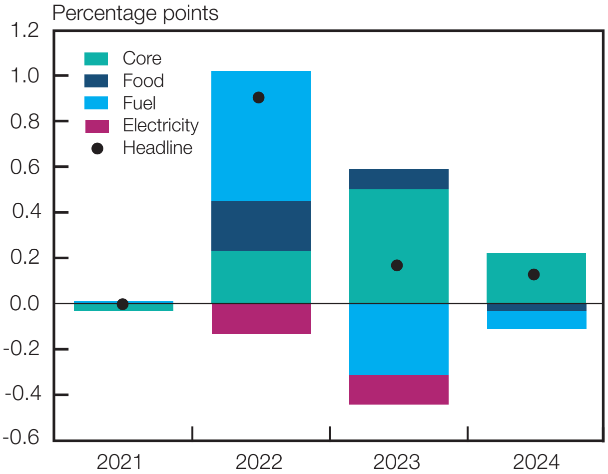
Percentage change over four quarters



Source: SARB

Contributions to change in headline inflation forecast*

Percentage points



* Between Jan and Mar 2022

Sources: Stats SA and SARB

By the March 2022 meeting of the MPC, the global environment had changed considerably. Downside risks to global growth were heightened, while new uncertainties surrounding the Russia–Ukraine war and its impact on oil and food prices and on supply chains emerged. Global growth was seen slowing faster than was projected at the January MPC meeting, while South Africa's commodity export prices reversed their moderation. Global inflation was projected substantially higher on markedly high energy and food inflation. The meeting was also preceded by the Fed raising its policy rate by 25 basis points.

In terms of domestic growth, the 2021 fourth-quarter GDP data showed the economy had made further progress. With growth over the outlook period revised slightly higher on improved terms of trade, the output gap was forecast to close a little earlier, adding to price pressures. Headline inflation was seen rising sharply, driven by fuel and food prices, and averaging 6.2% in the second quarter of 2022 before returning close to the target midpoint in 2023 and 2024.[12] The forecast projected steep rises in both services and core goods inflation, to 4.2% in 2022, 5.0% in 2023 and 4.7% (4.9% for core goods) in 2024. Between the January and March meetings, inflation expectations measured by surveys and by market indicators continued to rise well above the midpoint of the target band.

At the March meeting the MPC raised the repo rate by 25 basis points, citing higher upside risks to inflation over the medium term. The committee unanimously agreed to continue to normalise the repo rate, with three members opting for a 25 basis point increase while two members preferred a hike of 50 basis points. The QPM signalled a 25 basis point increase at the March meeting. The implied repo rate trajectory closely tracked that of the January meeting but added an additional 25 basis points in the first quarter of 2023, steepening the repo profile slightly. The baseline scenario further assumed a faster correction in oil prices than was forecast in January, which explains the sharp deceleration in inflation in 2023.[13] The repo rate is expected to rise to 6.75% by the fourth quarter of 2024.

12 The return to target is conditional on a repo response (endogenous repo rate).

13 Should this not materialise, inflation will remain elevated for longer, requiring a stronger policy response than indicated in the QPM baseline.

Conclusion

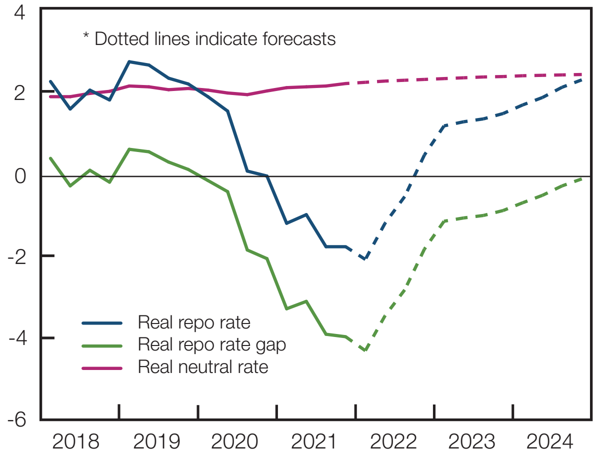
With core inflation gathering pace, and fuel and food prices markedly higher, headline inflation has accelerated. Looking ahead, while fuel and food prices should moderate, the closing output gap and higher imported inflation are expected to exert upward pressure on headline inflation. The Russia–Ukraine conflict has added additional price pressures to both oil and food, and elevated uncertainty around the inflation forecast trajectory.

The MPC has raised the repo rate by 75 basis points since November 2021, bringing the policy rate to 4.25%. Gradual normalisation dials back the degree of accommodation, in line with the expected inflation trajectory, and returns the repo rate to a sustainable long-term level that limits the risk of inflation exceeding the target for a lengthy period.

Over the longer-term, higher inflation is associated with lower growth and higher unemployment, and worsens wage inequality in South Africa (see Box 1).[14, 15] Low and stable inflation, on the other hand, promotes economic growth and protects the real consumption of households, particularly those living on grants or pension income.[16]

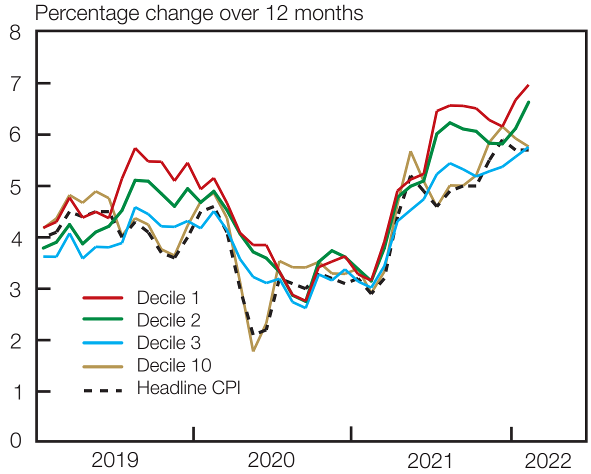
The attainment of low and stable inflation is necessary, but not sufficient, to achieve faster economic growth. Low inflation should be complemented by structural reforms that seek to provide sufficient energy for growth, reduce product and labour market regulation, lower the impact of administered prices on overall inflation, and further de-risk the economy by stabilising public debt. These reforms will bring about more dynamism in the economy, underpin low domestic inflation and permanently reduce borrowing costs.

Real repo rate, gap and neutral level*



Source: SARB

Inflation by income decile



Source: Stats SA

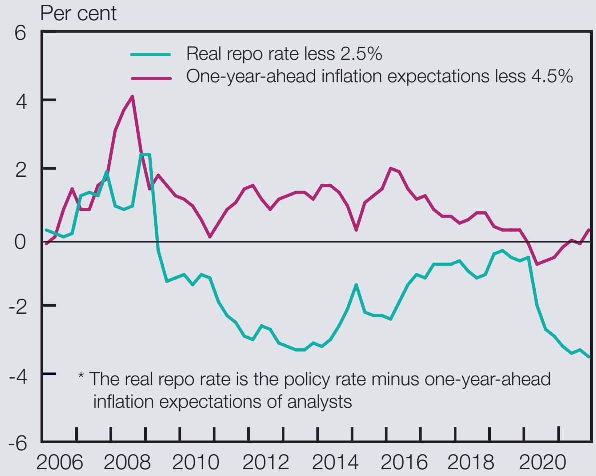
14 S Merino, 'Wage inequality under inflation-targeting in South Africa'. *South African Reserve Bank Working Paper Series No. WP/21/18*, Pretoria: South African Reserve Bank, September 2021.

15 T Janse van Rensburg, W Simbanegavi and D Steenkamp, 'The case for a 3% point inflation target', *South African Reserve Bank Economic Note No. EN/2021/10*, Pretoria: South African Reserve Bank, May 2021; K Makrelov and C Loewald, 'Impact of inflation on the poor', *South African Reserve Bank Bulletin of Economic Notes No. OBEN/20/01*, Pretoria: South African Reserve Bank, June 2020.

16 Inflation is a regressive tax and should thus be kept low and stable. Inflation is considered 'low' if economic agents can afford to ignore it when making consumption or investment decisions.

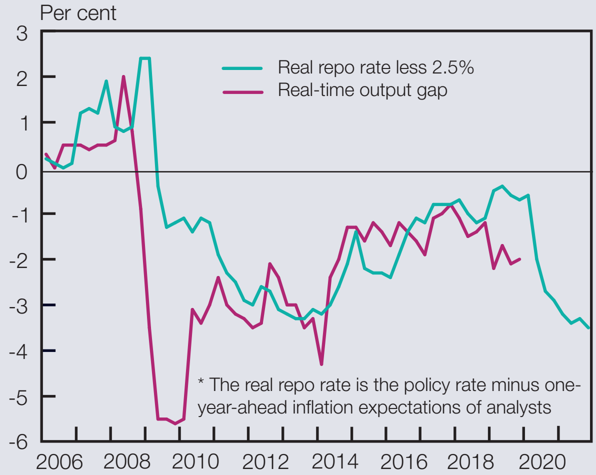
Box 1 The Phillips curve and monetary policy in South Africa

Real repo rate and inflation expectations*



Sources: BER and SARB

Real repo rate and output gap*



Sources: Honohan and Orphamides (2022)

Monetary policy decisions are guided by how far future inflation is from its target value and the extent to which demand relative to supply is increasing or decreasing inflationary pressures. The policy rules that capture these relationships therefore embed a trade-off with inflation that involves growth and/or employment: as inflation falls, measured output or employment levels are also expected to decline. These relationships have remained central to monetary policy since the seminal work of Phillips (1958).[1]

Phillips found a negative relationship between inflation and unemployment, suggesting that policymakers could drive unemployment below its natural rate by tolerating somewhat higher inflation. In the 'great inflation' era of the 1960s and 1970s, however, the relationship broke down, with high inflation co-existing with high unemployment, repudiating the general validity of Phillips' original thesis.[2] More recent studies suggest a weaker relationship – a 'flatter' Phillips curve – which implies that inflation has become less responsive to fluctuations in output and unemployment, and that once inflation is entrenched, it may be harder to get rid of.[3]

Despite the conventional use of the Phillips curve hypothesis in monetary policy in South Africa, econometric studies have found little evidence for the trade-off between inflation and unemployment, consistent with the global literature. Using output or other measures of aggregate demand as proxies for the unemployment rate have generated similar outcomes.[4] Other advanced estimations that include inflation expectations and wage determination, while confirming the existence of an output-inflation trade-off, have also shown the impacts to be much smaller than conventionally assumed.[5]

Notwithstanding the lack of support in the data, the Phillips curve framework has remained central to the application of policy. An evaluation of the decisions of the South African Reserve Bank's Monetary Policy Committee over the past decade shows that policy has responded more to the output gap than to the deviation of inflation from the target and has been generally more accommodative.[6] This in part reflects a systematic overestimation of potential gross domestic product that implied a wider output gap than actually existed at the time of estimation.

---

1 A W Phillips, 'The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861–1957, *Economica* 25(100), 1958, pp 283–299.

2 See, for example, M Friedman, Nobel lecture: 'Inflation and unemployment', *Journal of Political Economy* 85(3), 1977, pp 451–472.

3 This latter point, however, can be intermediated by central bank credibility, reducing the sacrifice ratio.

4 See, for instance, J Fedderke and Y Liu, 'Inflation in South Africa: an assessment of alternative inflation models', *South African Journal of Economics* 86(2), 2018, pp 197–230.

5 See, for example, M Reid and G du Rand, 'A sticky information Phillips curve for South Africa', *South African Journal of Economics* 83(4), 2015, pp 506–526; and M Botha, L Kuhn and D Steenkamp, 'Is the Phillips curve framework still useful for understanding inflation dynamics in South Africa?', *South African Reserve Bank Working Paper Series No. WP/20/07*, Pretoria: South African Reserve Bank, September 2020.

6 See P Honohan and A Orphanides, 'Monetary policy in South Africa, 2007–2021', *WIDER Working Paper No. 2022/29*, Helsinki: UNU-WIDER, March 2022; and A Kabundi, E Schaling and M Some, 'Estimating a Phillips curve for South Africa: a bounded random-walk approach', *International Journal of Central Banking* 58, June 2019.

These econometric evaluations make it plain that policy rules predicated on simple macroeconomic relationships need ongoing assessment in the light of other economic shocks and structural factors that can be better explanators of economic growth and job creation outcomes. In some contrast to the basic Phillips curve intuition, studies show that higher inflation is undesirable for various reasons, including having adverse distributional effects on the poor and those living on fixed incomes, while also reducing competitiveness and placing jobs in export- and import-competing businesses at risk.[7] Indeed, there is a long-run negative relationship between inflation and employment in South Africa that operates in part through the effects of higher inflation on the supply cost of less-skilled workers.[8]

7 Lower-income households experience higher and more volatile inflation than those from higher income groups (see C Loewald and K Makrelov, 'The impact of inflation on the poor', *South African Reserve Bank Economic Note No. EN/2019/20*, Pretoria: South African Reserve Bank, October 2019). See W L Kumo, 'Inflation targeting monetary policy, inflation volatility and economic growth in South Africa', *African Development Bank Group Working Paper Series No. 216*, Abidjan: African Development Bank, January 2015.

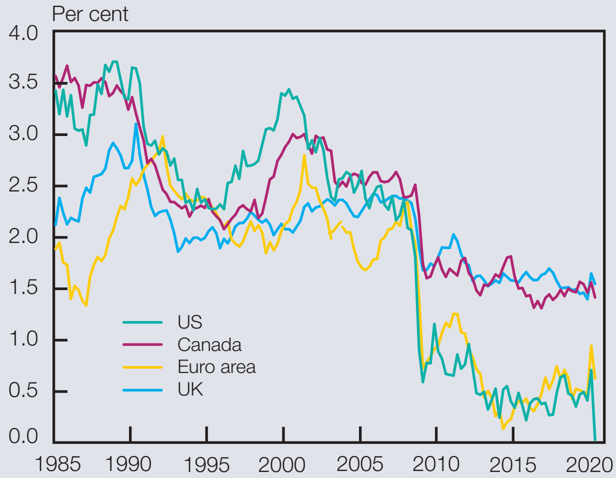
8 See J C Vermeulen, 'Inflation and unemployment in South Africa: is the Phillips curve still dead?', *Southern African Business Review* 21(1), 2017, pp 20–54.

Box 2 Neutral real rates in the post-COVID-19 pandemic era

As monetary policy normalisation proceeds in many economies, increasing attention will be paid to the distance between the current real policy rate and the neutral real interest rate level (r*, or r-star).[1] R* is the real short-term interest rate that is consistent with the economy being at equilibrium, that is, having inflation stable around the target and output/unemployment at its sustainable rate. In this state, the economy does not require any monetary stimulus. The neutral real interest rate thus serves as a benchmark for assessing the contribution of the current real policy rate to inflation.[2] In the context of the process of normalisation, the neutral rate also indicates the 'end point' of any normalisation cycle.

In the past decade, neutral real interest rate estimates for both advanced and developing economies have declined for a range of reasons, but primarily because a lower rate is needed to equilibrate savings with demand for capital. Lower potential economic growth can imply less demand for investment. Alternatively, higher life expectancy can incentivise more saving for retirement, and in some economies, generate excess saving. Rising income inequality can, in some instances, also generate a too high savings rate, as higher

Estimates of r* in selected economies, 1985–2020



Source: Holston, Laubach and Williams

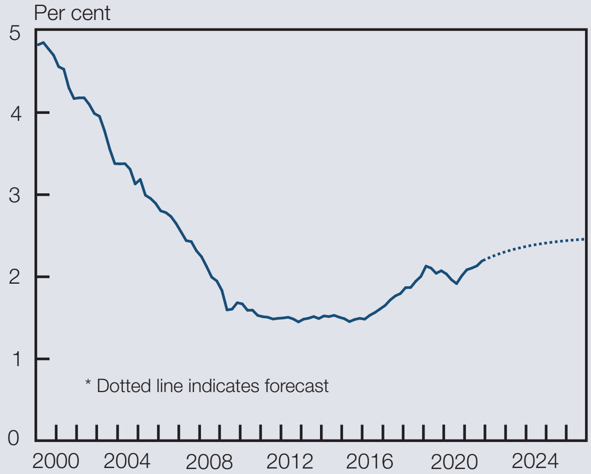
1 Neutral interest rates are not observable, and their estimation is subject to considerable uncertainty.

2 When the real policy rate is below its neutral level, monetary policy is said to be accommodative (or loose), while it is said to be contractionary when the real policy rate is above its neutral level.

income earners have a higher propensity to save.[3] For emerging markets, enhanced integration with global finance, the shift to inflation targeting and enhanced central bank credibility may have contributed to a decline in r* as these helped reduce macroeconomic risks.

South Africa has also seen a decline in the neutral interest rate over the past two decades, in part reflecting the declining trend for r* globally. However, despite lower potential real gross domestic product growth, a sharp rise in demand for foreign saving (reflected in South Africa's persistent current account deficit) has kept the neutral interest rate relatively high. The South African Reserve Bank (SARB) estimates the domestic neutral real interest rate at 2.3% in 2022, rising marginally to 2.4% in 2024.[4]

Neutral interest rate*



Source: SARB

How will r* evolve in the post-pandemic global economy? A higher global r* means (all other things being equal) a higher cost of accessing foreign savings. Major pandemics typically would be expected to lower r* for at least two reasons. First, a high mortality among the working-age population should result in excess capital per worker, depressing the return on capital, and thus the incentive to accumulate more capital. Second, pandemics typically would result in loss of income and dissaving, causing households to increase (precautionary) savings post-pandemic.[5] The COVID-19 pandemic, however, hasn't resulted in sharply higher mortality among the working-age population, while the swift and generous fiscal policy support limited income and wealth losses, and hence dampened the long-term need to build additional savings.[6]

Although the expected slower accumulation of physical and human capital globally should depress r*, other factors may push it higher, including rising dependency ratios in advanced economies and elevated inflation that reduces saving.[7] A rising global r* would require a higher domestic r* for savings-constrained countries like South Africa to continue to attract foreign capital. This would widen the real repurchase (repo) rate gap, potentially requiring a steeper policy normalisation path.

---

3 See, for instance, K Holston, T Laubach and J C Williams, 'Measuring the natural rate of interest: international trends and determinants', *Journal of International Economics* 108(S1), 2017, pp 59–75; F Ruch, 'Neutral real interest rates in inflation targeting emerging and developing economies', *Policy Research Working Paper No. 9711*, World Bank, June 2021; and K Tanaka, P Ibrahim and S Brekelmans, 'The natural rate of interest in emerging Asia: long-term trends and the impact of crises', *Asian Development Bank Institute Working Paper No. 1263*, May 2021.

4 Given differences in methodologies and the high uncertainty around the point estimates for r*, there will be various estimates for r*. See, for instance, A Masia, 'Navigating the natural rate', South African Economics – EEMEA, RMB/Morgan Stanley, 18 January 2022.

5 O J Jorda, S R Singh and A M Taylor, 'Longer-run economic consequences of pandemics', *Federal Reserve Bank of San Francisco Working Paper No. 2020–09*, San Francisco: Federal Reserve Bank, June 2020.

6 Monetary policy measures also facilitated a quick rebound in asset prices, preventing permanent wealth losses.

7 A factor that has not yet received much attention in this literature is the possibility for increased accumulation of green capital as countries transition to low-carbon economies, driving r* higher.

A disrupted global recovery

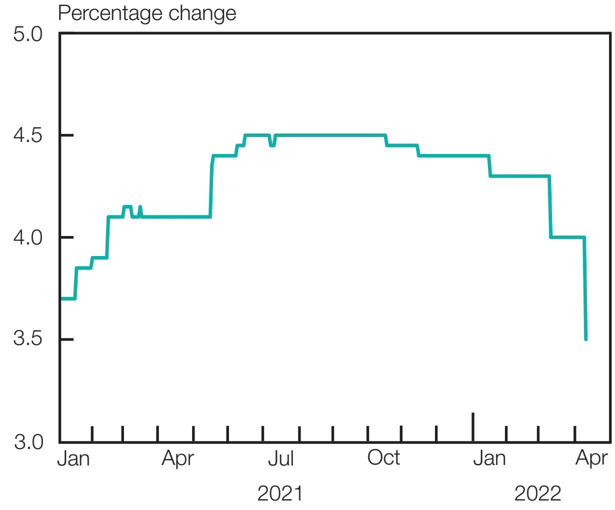
Following a strong rebound in economic activity for most of 2021, the global growth momentum started to slow towards year-end. Growth is expected to moderate substantially in 2022 as headwinds have strengthened, with inflation emerging as a key risk to the recovery. The elevated inflation rate is projected to persist for longer than initially expected amid extremely high energy prices, continuing supply chain bottlenecks and rising wage pressures. As new upward inflation shocks emerge, the risk of inflation expectations rising further has become material. Risks to the growth outlook are tilted to the downside due to rising inflation, the Russia–Ukraine war, the possible emergence of new waves of COVID-19 infections as well as a more aggressive policy normalisation response by major central banks.

Global growth loses momentum

Over the past year the global economy has continued its strong recovery despite frequent interruptions. It successfully navigated the Omicron variant of the COVID-19 infections at the end of 2021, with growth recovering quickly once restrictions were eased. The recovery is said to be the strongest post-recession rebound in the past 80 years, though the global economy is yet to heal completely.[17] However, the headwinds of sharply higher inflation and, more recently, the Russia–Ukraine war, are expected to slow global growth substantially. The SARB projects a steep decline in global growth to 3.7% this year, down from 6.4% in 2021. Since the middle of 2021, market analysts and economists have progressively revised their 2022 real GDP forecasts lower amid rising energy prices and persistent supply bottlenecks. The Russia–Ukraine war has increased uncertainty around the trajectory for global growth, with risks tilted to the downside. The sharp increase in energy prices, particularly oil and gas, now implies significantly higher inflation profiles for 2022 that could weigh on real incomes and growth and, in turn, spur higher inflation.

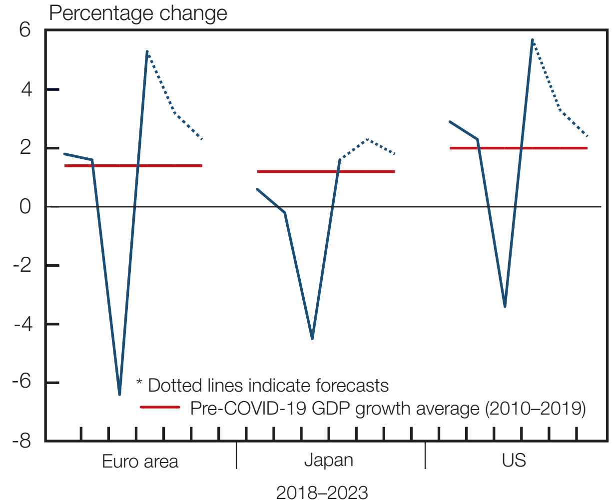
Real GDP growth rates across the advanced economies should fall markedly this year, but are expected to remain above their pre-pandemic averages before easing back to more sustainable levels (i.e. trend growth) by 2023.[18] For instance, real GDP growth in 2022 is projected to reach 3.3% in the US, from 5.7% in 2021, and 3.2% in the euro area, from 5.3% last year.[19] Private consumption and investment should continue to drive growth in 2022, though moderated by the sharply rising consumer prices and the withdrawal of monetary accommodation. Growth in both the US and euro area began to moderate towards the end of 2021 as the effects of higher consumer prices, supply chain disruptions and the surge in

Evolution of 2022 real global GDP growth forecasts



Source: Bloomberg

Real GDP growth projections: G3 economies



Sources: Consensus Economics, Haver and SARB

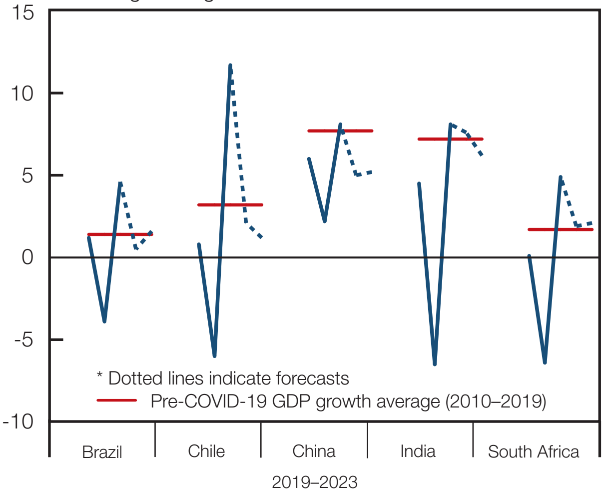
17 World Bank, *Global Economic Prospects*, June 2021.

18 The World Bank projects the average growth for advanced economies over the 2022–2023 period to be markedly higher (3.1%) compared to growth during 2010–2019 (2%). See World Bank, *Global Economic Prospects*, January 2022.

19 Consensus Economics, *Consensus Forecasts*, March 2022.

Real GDP projections of selected emerging markets*

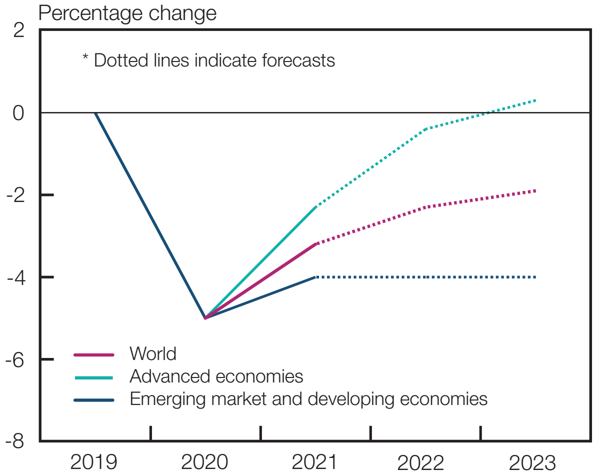
Percentage change



Sources: Consensus Economics, Haver and SARB

Deviation of investment from pre-pandemic trends*

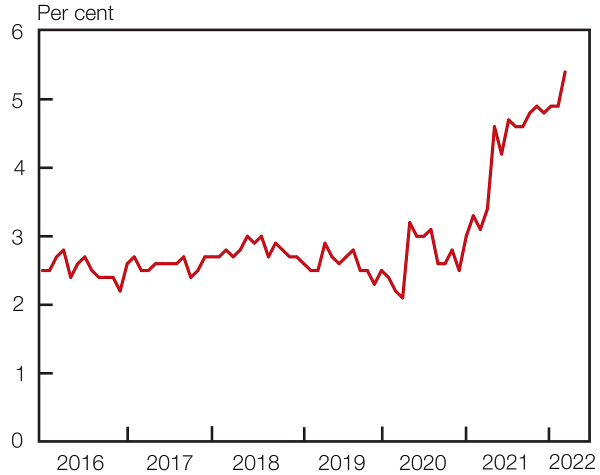
Percentage change



Source: World Bank

US one-year-ahead household inflation expectations

Per cent



Source: Bloomberg

Omicron infections weighed on economic activity. However, activity picked up again as restrictions were lifted, but the Russia–Ukraine war poses a major downside risk to the growth outlook, particularly for the euro area.

Growth rates in most emerging markets should remain firm but are expected to decline below pre-COVID-19 trends in 2023 due to elevated inflation, the withdrawal of fiscal and monetary accommodation, and lower vaccination rates. Looking ahead, a full recovery is expected in some economies, while in most countries output should continue to fall short of pre-pandemic levels. Recoveries across emerging markets have been underpinned by consumption as investment has remained fairly subdued.[20] Concerns of a sharper slowdown in China have eased as policy has become relatively more supportive. However, the country's zero-tolerance COVID-19 policy as well as protracted financial stress among property developers remain risks to the outlook.

The growth outlook has, however, deteriorated in countries such as Brazil and Chile where intense inflationary pressures prompted a strong monetary policy response. Growth in sub-Saharan Africa (SSA) is expected to moderate to 2.6% in 2022, from 3.8% in 2021, with recoveries expected to remain uneven among SSA countries. The divergence mostly reflects the region's slow vaccine roll-out, slow recovery in tourism, high inflation and limited fiscal space. The recent rapid advance in energy prices will likely further depress growth in emerging markets, though the elevated commodity prices are expected to mitigate the impacts, particularly for the commodity-exporting emerging markets.

Inflation higher and more persistent

Inflation has emerged as a major threat to the sustainability of the global economic recovery, with near-term price pressures aggravated by the geopolitical tensions in Eastern Europe. Global inflation has been considerably stronger and more persistent than had been expected.[21] At 7.9% in February 2022, inflation in the US has reached levels not seen since the 1980s. US households anticipate prices to continue rising in the short term, with one-year-ahead inflation expectations having risen sharply to 5.4% in March 2022. In the euro area, households' opinion on both past and future price gains has also risen strongly. Although longer-term inflation expectations have edged up, they remain generally in line with central banks' objectives. However, the sharp increases in the oil price and further upward pressures on food prices associated with the Russia–Ukraine war could cause these expectations to drift higher. Inflation in advanced economies is anticipated to peak in the second quarter of 2022 and to decelerate rather slowly towards the target.

20 According to the World Bank, aggregate investment across emerging markets was subdued during 2021 and should remain around 4 percentage points below pre-COVID-19 trends over the medium term (World Bank, *Global Economic Prospects*, January 2022).

21 In most countries, inflation is well above target and is expected to take longer to slow.

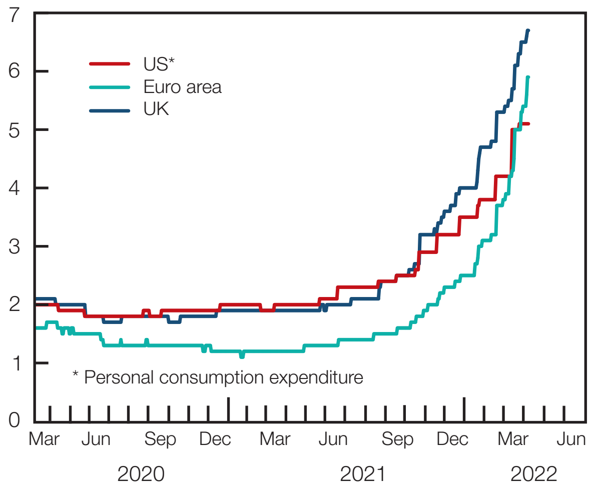
Acute increases in energy prices have added markedly to inflation pressures.[22] The spot price for Brent crude oil has more than tripled since the end of June 2020, with most of the increase occurring at the start of this year. Gas prices in Europe have risen by about 400% over the past year.[23] The oil market is currently in backwardation, with the spot price exceeding futures contracts, consistent with consensus expectations of oil supply moving past demand in coming quarters. However, the Russia–Ukraine war and uncertainty about the speed at which oil supply will increase continue to pose upside risks to the oil price.

Another factor that will determine how quickly inflation declines is the pace at which supply constraints are resolved. The rapid and skewed recovery in global demand for goods in 2021 and the slower recovery of production capacity have generated excess demand. Recurring COVID-19 outbreaks have led to disruptions in production, particularly in Asia where some countries have implemented zero-tolerance COVID-19 policies. The closure of some key ports at the height of the pandemic created bottlenecks in global shipping. Shipping costs spiked in 2021 but there are signs these may have peaked as costs on certain shipping routes have come down from their highs. For example, shipping rates along the China to US West Coast route and China to the euro area, viewed as among the world's busiest, have been declining (see Box 3). Supply bottlenecks are likely to be corrected through adjustments in both supply (rebuilding of inventories and investment in new capacity) and demand (rotation in spending back from goods to services amid relative price shifts, and a price squeeze on real incomes). However, in sectors such as shipping, adjustments could prove lengthier than in others.[24]

The apparent tightening in advanced economy labour markets and the emergence of labour shortages may exert upward pressures on wage inflation. The pandemic has led some workers to voluntarily withdraw from the labour market, dropping the participation rates.[25] For instance, millions of workers in the US have quit their jobs since the pandemic began, a pattern now termed the 'Great Resignation'. This has resulted in the US labour force participation rate falling to levels below its long-run trend. Many other countries, including the UK and those in Latin America, have also experienced sharp declines in labour force participation. However, others such as Japan and several European countries have seen labour force participation rates increase to above pre-pandemic levels, implying muted wage inflation pressures in these countries.

Evolution of 2022 inflation forecasts

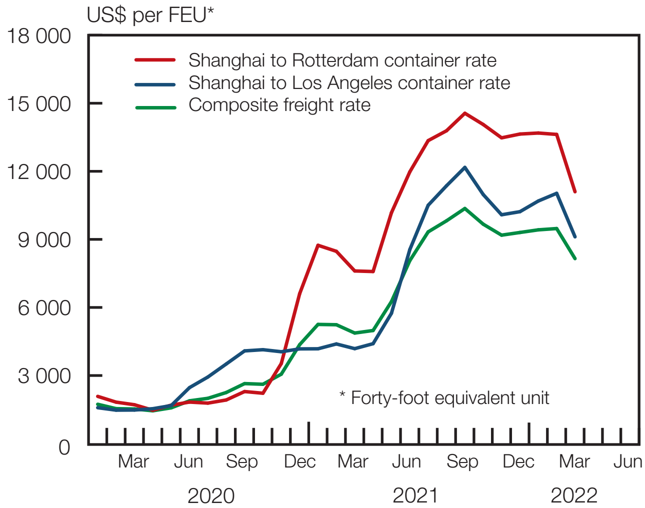
Per cent



Source: Bloomberg

Container rates for various shipping routes

US$ per FEU*



Source: Bloomberg

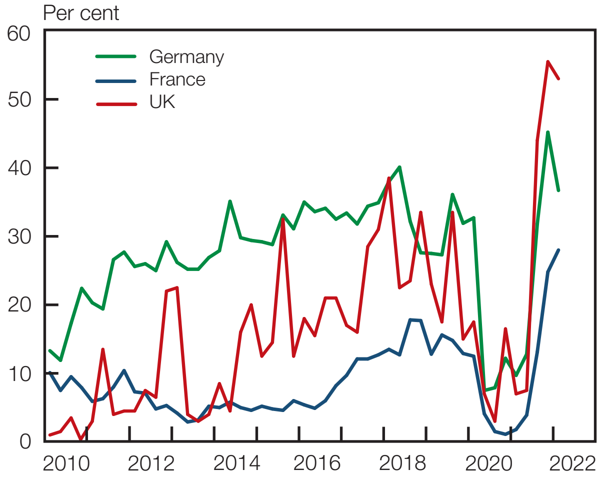
22 For instance, nearly half of the 7.5% January inflation rate in the US can be attributed directly to energy prices. See the US Bureau of Labor Statistics. https://www.bls.gov/news.release/pdf/cpi.pdf

23 See, for instance, Bank of England, *Monetary Policy Report*, February 2022.

24 Citigroup believes that current supply chain disruptions are partly due to decades of disinvestment in US infrastructure, including ports. For that reason, some supply chain tensions, in particular shipping, would take longer to resolve. See Citi GPS, 'Global supply chains', December 2021.

25 Reasons for exiting the labour market varied, including (early) retirement, caregiving and fear of contracting the virus. See United States Federal Reserve, *Monetary Policy Report*, February 2022.

Staff shortages across major economies



Source: EU Commission and Confederation of British Industries

Unfilled job vacancies (as a share of the workforce) in major advanced economies have also risen sharply in recent months. Firms in the UK, Germany and France have been reporting an unusually high number of staff shortages, especially in consumer-orientated services sectors such as accommodation, catering and real estate services. Expectations are that some workers will return to the labour market once the COVID-19 pandemic has sufficiently faded and they feel more comfortable working again or once their savings accumulated during the lockdown have been exhausted.

2022: the year for a rates lift-off

During the first half of 2021, the expectation for 2022 was that monetary policy would remain accommodative across advanced economies. The expectations have shifted radically as inflation has soared, and investors now expect 2022 to be the year for a rates lift-off in developed economies. With the economy growing above trend and inflation at record levels, the US Fed accelerated its tapering of asset purchases and raised the federal funds rate by 25 basis points at its March Federal Open Market Committee meeting.[26] Expectations are broadly for the Fed to hike the federal funds rate at least seven times this year and begin downsizing its balance sheet. Markets are pricing in more aggressive rate hikes in the US as inflation continues to surprise on the upside. This, however, has raised concern about a possible ‘hard landing’ that could derail the global recovery. Although inflation is also sharply higher in the euro area, there is markedly higher uncertainty around the policy rate path due to heightened growth concerns as a result of the Russia–Ukraine war. Emerging market central banks are expected to continue policy normalisation given the high inflation and expected rate hikes in the advanced economies.

Conclusion

The recovery in the global economy has been strong despite repeated disruptions from the COVID-19 outbreaks. Meanwhile, inflation has emerged as a major risk to the sustainability of the recovery. Robust demand, supply chain disruptions, tighter labour markets and sharply higher energy prices have pushed inflation to its highest level in decades. The Russia–Ukraine war poses further upside risks to energy prices, and thus inflation. Despite mounting downside risks, advanced economy central banks are expected to begin policy normalisation during the first half of 2022, while it should continue in emerging markets. Rising interest rates and higher inflation, however, will be a drag on growth.

26 The US Congressional Budget Office estimates US real potential GDP at 1.9% in both 2022 and 2023.

Box 3 Global supply chain bottlenecks contributing to inflation

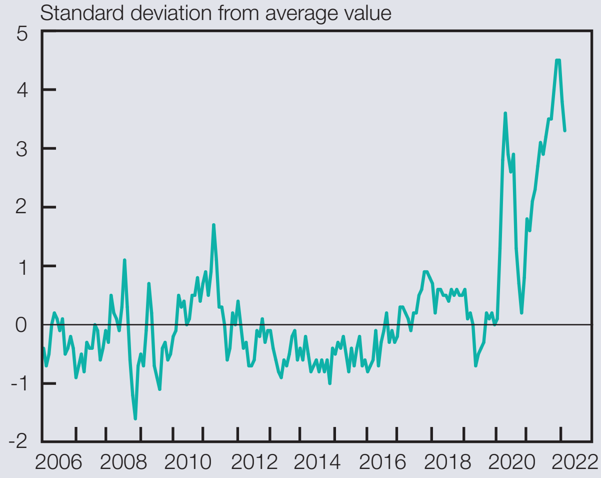
Since the onset of the COVID-19 crisis, lockdown restrictions implemented across the globe have disrupted global supply chains. The disruptions include production halts, border closures, heightened logistical bottlenecks, and restrictions in the mobility of goods and people. At the same time, the pandemic and the measures to slow its spread, such as social distancing, have resulted in a sharp shift in consumer spending towards manufactured goods.[1] This shift in consumption towards goods has added pressure on already strained supply chains.[2] The unexpectedly strong rebound in the demand for goods forced a marked drawdown on inventories, and now firms need to simultaneously meet the persistently high demand and rebuild inventories, further exacerbating pressure on supply chains. Although the supply chain challenges are far from being resolved, the Global Supply Chain Pressure Index suggests that bottlenecks may have begun easing. This is attributable, at least in part, to initiatives from various countries relieving backlogs and improving delivery times.[3]

Robust demand, and supply chain and logistical difficulties have also exerted upward pressure on prices. The strong demand for goods has further supported higher oil prices, with geopolitical tensions in Eastern Europe providing additional impetus. This has driven non-core inflation higher. Meanwhile, the strong demand for goods has given sellers room to pass through some of the cost increases to end users. Consequently, consumer inflation for various countries reached multi-year highs towards the end of 2021 and is expected to remain above central bank targets over the medium term.

South African manufacturers are experiencing difficulties replenishing inventories and equipment because of raw material shortages and bottlenecks at ports. This is evidenced by order delivery times of manufactured goods which have increased sharply since the second half of 2020.[4] The South African Reserve Bank's composite supply chain pressure index increased further in December 2021 (see the *Quarterly Bulletin*, March 2022, pp 102–107). Supply-related prices have risen markedly, leaving manufacturers reeling.[5] Despite low pass-through to date, the elevated producer prices could shape the future trajectory of consumer price inflation.

Global Supply Chain Pressure Index

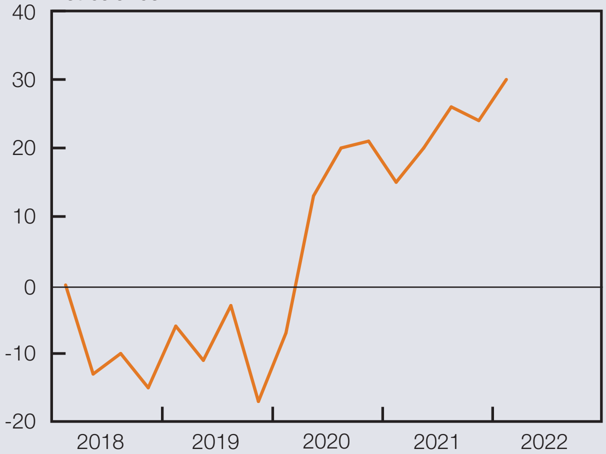
Standard deviation from average value



Source: Bloomberg

Delivery periods of orders received in manufacturing

Net balance



Source: BER

1 Services have generally been slow to reopen globally.

2 The strong pickup in demand can be attributed to pent-up demand due to the lockdowns, large fiscal support and exceptionally accommodative monetary policy, particularly in the advanced economies.

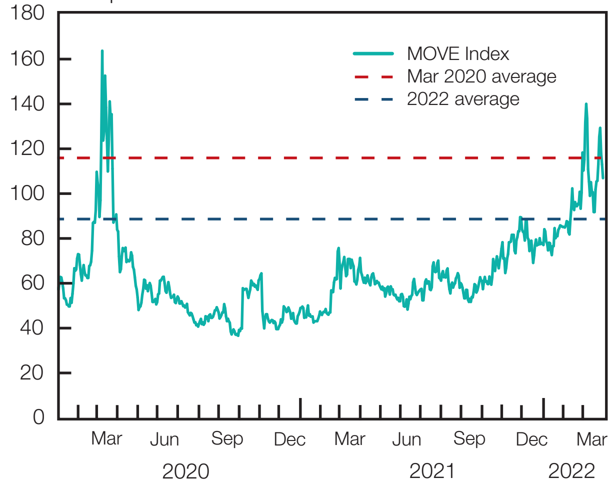
3 A penalty on long-aging containers in the United States (US) was instituted in November 2021. Additionally, Europe, Asia and the US have each invested more than US$40 billion in their semiconductor industries to help enhance supply chains (D Shepardson, 'US Senate approves $52 bln chips bill in bid to reach compromise', Reuters, 29 March 2022). Furthermore, the shift away from zero-tolerance COVID-19 policies in Asia has led to an immediate reduction in backlogs.

4 According to Statistics South Africa, the number of producers citing raw material shortages as a reason for capacity underutilisation rose from an average of 2.3% in 2019 to 3.8% in 2021.

5 The producer price index for intermediate manufactured goods rose sharply to 23.1% in December 2021 before moderating marginally to 21% in January 2022 and to 19.3% in February 2022.

Bond market volatility

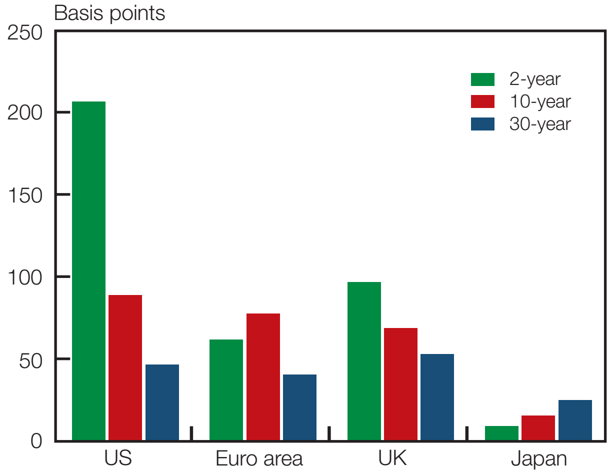
Index points



Sources: Bloomberg and SARB

Global government bond performances*

Basis points

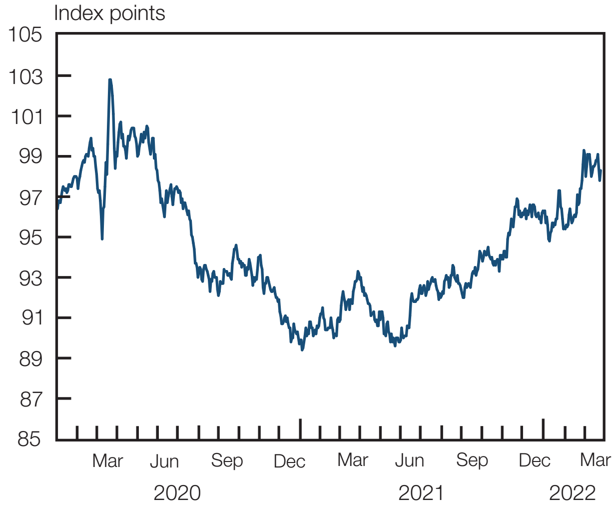


* Change in bond yields since previous *MPR*

Source: Bloomberg

US dollar index

Index points



Source: Bloomberg

Financial markets: three large shocks

Over the past six months, global markets have experienced three large shocks: an intensification of the COVID-19 pandemic driven by the Omicron variant, a rapid change in monetary policy expectations prompted by high inflation outcomes, and a surge in uncertainty related to the war in Ukraine. This has driven volatility towards levels last seen in March 2020 and reduced prices for many risk assets. Despite this difficult global context, local assets have been generally resilient, with the currency, for instance, now marginally stronger than it was six months ago.

Global financial markets

The six-month period under review started with the discovery and rapid spread of the Omicron variant of COVID-19. This shock deflated a period of financial market exuberance, marked by strong equity gains and easy financial conditions. The CNN Business' Fear and Greed Index, for instance, switched abruptly from greed to fear in late November 2021.[27]

After an initial period of uncertainty, it became clearer that the new variant, while highly infectious, was also less deadly than previous strains and would not derail the global economic recovery. By January, market concerns had moved on, focusing instead on unexpectedly high inflation and with it a need for tighter monetary policies.

The shift was particularly marked in the US and the UK, as these central banks moved to raise rates in response to persistent upside inflation surprises. The Bank of England lifted off from the effective zero lower bound in December 2021, while the US Fed moved in March 2022. Longer-term yields have also risen, but these increases have been more muted, reflecting confidence that inflation will stabilise over the medium term. The US and UK yield curves have therefore flattened markedly. Meanwhile, the global stock of negative yielding debt has contracted from around US$16 trillion to under US$3 trillion over the past six months, as concerns about high inflation have eclipsed the spectre of 'Japanification' and chronic low inflation, which dominated much of the previous decade.

The US dollar has appreciated on the growing divergence in advanced economy short-term rate expectations, with the euro correspondingly weaker. This trend has been accentuated by the Russia–Ukraine war, which has dampened rate hike prospects for the euro area more than those for the US.

27 This index uses seven equity market indicators to assess the 'mood of the market' – see https://edition.cnn.com/markets/fear-and-greed

In the emerging market sphere, countries with idiosyncratic vulnerabilities (notably Argentina, Russia and Turkey) have seen dramatic currency weakness. Many others have been resilient, however, with Latin American currencies in particular holding up well despite the strong dollar and risk-off environment.[28] The rand has been similarly robust, outperforming most peers over the past six months.

Global stocks have had a difficult start to the year, surrendering some of 2021's record gains. The MSCI Developed Markets (DM) Index has declined by 6.0% for the year to date, while the emerging markets equivalent is down by 9.0% (in US dollar terms). The broad-based decline in global equities is primarily explained by risk-off sentiment. As discussed below, however, South Africa is an exception, with the local MSCI metric up by 8.0% for the year to date (again expressed in US dollars).

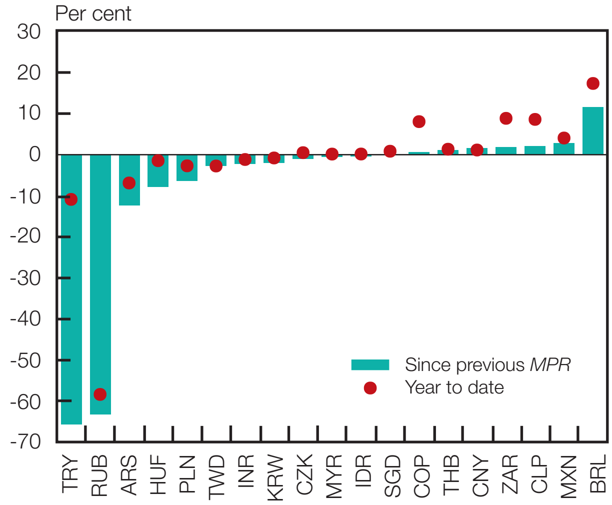
Domestic financial markets

According to JSE Limited (JSE) data, there have been capital inflows to both the bond and equity markets this year, after outflows through most of 2021. These flows have benefitted equities more than bonds. Despite the difficult global situation, the JSE reached a new all-time high in early March 2022, with mining stocks in particular benefitting from higher commodity prices. South African stocks have performed better than the average of either developed or emerging markets, both for the year to date and over the past six months.

The South African government bond yield curve flattened somewhat during the review period, with short rates rising in line with the SARB's hiking cycle. Markets are now pricing in a further 2 percentage points in hikes this year, which would take the repo rate to 6.25%. Analysts' expectations are significantly lower, however, with the latest Reuters and Bloomberg surveys indicating a year-end rate of between 4.75% and 5.00%.

Meanwhile, yields further out on the curve have been relatively stable, with the longer-end yields (over 10 years) even falling somewhat over the past six months. The bond market has been supported over the review period by strong government revenue inflows, linked to high commodity prices, which have permitted reduced debt issuance. Long-term rates, nonetheless, remain high compared with both peer countries and South African history, reflecting fiscal challenges (elevated debt levels and chronically weak growth) as well as the South African strategy of targeting a long debt maturity.

Change in emerging market currencies

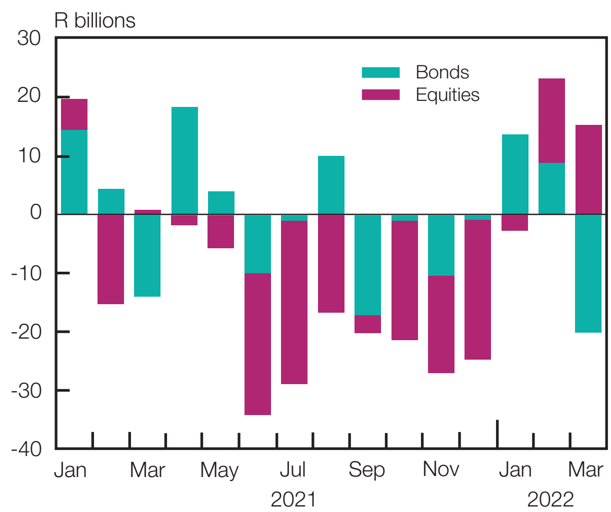


Source: Bloomberg

Equities performance

Sources: Bloomberg and SARB

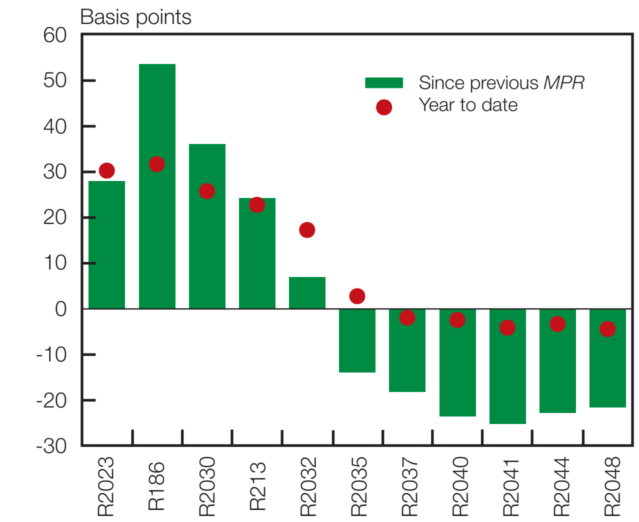
Non-resident capital flows



Source: JSE

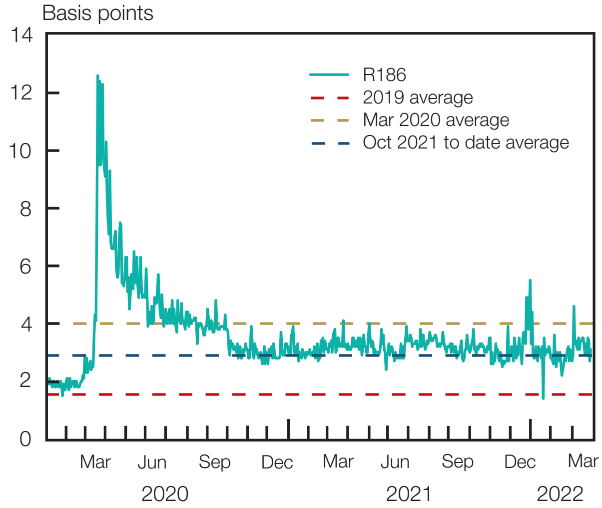
28 As remarked upon in the *BIS Quarterly Review*, 'Markets jolted', March 2022. https://www.bis.org/publ/qtrpdf/r_qt2203.pdf

Change in SA government bond yields



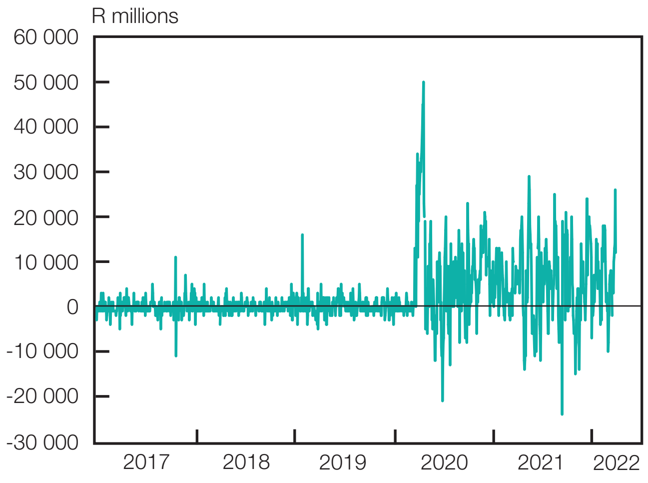
Source: Bloomberg

Bid-offer spread



Sources: Bloomberg and SARB

Interbank, end-of-day position



Source: SARB

Despite fairly stable yields over the past six months, the bond market remains fundamentally more fragile than it was before the onset of COVID-19 and the sovereign's simultaneous loss of investment-grade status. Bid-ask spreads on even the most liquid bond (the R186) have averaged roughly double their 2019 levels recently, given lower levels of liquidity, with bond prices seeing large movements even on relatively small trades ('gapping'). These dynamics reflect, in part, a lower level of non-resident participation in the bond market, with the share of domestic bonds owned by non-residents down to 28.2% in 2021, from 37.1% in 2019. While domestic buyers (especially banks, pension funds and unit trusts) have increased their holdings of government debt, they have limited scope to absorb further issuance, implying there are not always ready buyers at prevailing rates. This adds a liquidity premium to bond yields.

Monetary policy implementation

South African monetary policy is implemented through a 'shortage' or classical cash reserve system, with the SARB engineering a deficit of bank reserves and then lending the missing funds to banks at the policy rate. Before the onset of COVID-19, this shortage was typically R56 billion, but it has been smaller since, at around R30–35 billion. The Wednesday repo auctions have nonetheless continued to offer a maximum of R56 billion, and banks have typically borrowed more than would be required purely to offset the shortage. Accordingly, the interbank market has generally ended the day with a substantial surplus, in contrast with the pre-crisis norm where excess reserves were nearly zero. For instance, the average end-of-day position has been R5.3 billion over the past six months; it averaged just R161 million in 2019.

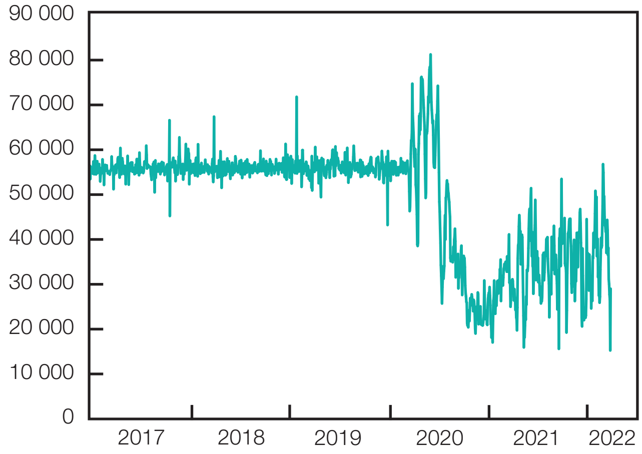
While an oversupply of funds can depress interbank rates, there is relatively little evidence of excess liquidity lowering interbank rates for the period under review. The South African Benchmark Overnight Rate (Sabor) shows some volatility, but this is mainly traceable to the foreign exchange (FX)-implied component of that benchmark. The three-month Johannesburg Interbank Average Rate (Jibar) is trading at a smaller margin to the repo than it did pre-COVID-19, but there is no clear correlation with the end-of-day surplus. Short-term Treasury bill yields have also dipped below the repo rate on occasion, but these bids were generally traceable to specific institutions buying for regulatory purposes rather than a broader excess of liquidity.

Leaving excess funds in the payment system at the end of the day involves an opportunity cost for banks, as the SARB's deposit facility pays 100 basis points less than the repo rate. There are several reasons why it has been difficult for banks to recycle excess balances through the interbank market. These include the market's shift away from unsecured towards collateralised lending, as well as the sovereign credit rating downgrade, which has placed tighter risk limits on international banks' exposures to local institutions. In an environment of excess liquidity, there have also been fewer banks with short positions to fund.

Despite an oversupply of central bank liquidity, FX-implied rates have remained generally high and volatile over the past six months, and well above their pre-COVID-19 range. They have nonetheless moderated somewhat this year, even falling below the repo rate briefly during February 2022. Distortions in the forward market over the past two years have meant that non-residents have faced generally higher costs of hedging domestic investments. To moderate FX-implied rates, the SARB has taken steps to reduce its stock of foreign currency swaps. The forward position has consequently declined to about US$3.9 billion, from a peak of around US$5 billion in October 2020. Moving to a surplus liquidity framework (as discussed in Box 5) is expected to ease FX-implied rates further, while also mitigating some shortcomings of the interbank market.

Liquidity requirement

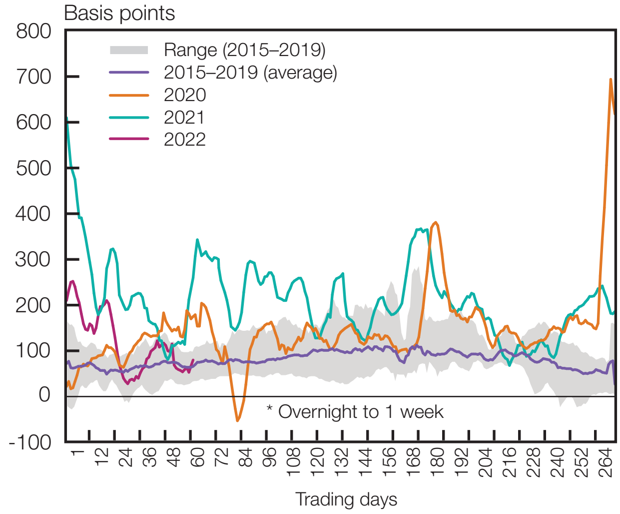
R millions



Source: SARB

FX-implied rate spread to the repo rate*

Basis points



Sources: Bloomberg and Haver

Box 4 Evolution of the sovereign yield curve in a pandemic era

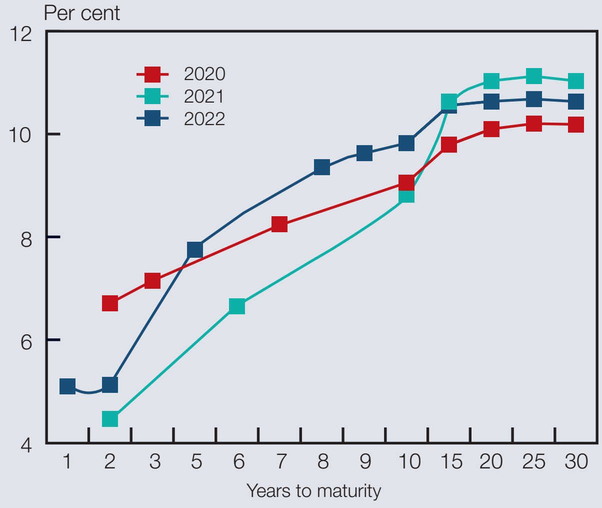
The sovereign yield curve shows the price of capital borrowed over different maturities or periods of time. Its level and steepness change over time as economic fundamentals move, especially inflation and risk perceptions. South Africa's yield curve has steepened considerably since the onset of the COVID-19 pandemic, despite some flattening since the middle of 2021. Compared to emerging market peers, the South African yield curve remains steep, with long yields currently at around 10.6%. While Brazil's yield curve is flat and high, those of Mexico and Chile reveal higher short-term interest rates and less longer-term inflation and sovereign risk.

A decomposition of the sovereign yield curve shows why the curve remains steep. The future expectations of the short rate component have been anchored around the 7% mark, while the term premium component has been rising steadily since 2018. Following the COVID-19-related sharp spike in 2020, the term premium dropped closer to its pre-pandemic levels, but remained elevated at 2.7% at the start of 2022.[1] The term premium reflects liquidity, sovereign and inflation risks.

Following a well-known approach,[2] nominal yields can also be decomposed into four separate risk components.[3] The first component, real foreign exchange (FX) risk, reflects the potential change in the *hard currency value* of investors' local currency government bond holdings. Second, the risk-free rate is the basic underlying cost of global capital, often proxied by the yield on a short-dated US Treasury bill. Third, sovereign risk captures additional credit or domestic risk. The last component is the inflation differential, which captures both inflation risk and inflation expectations.

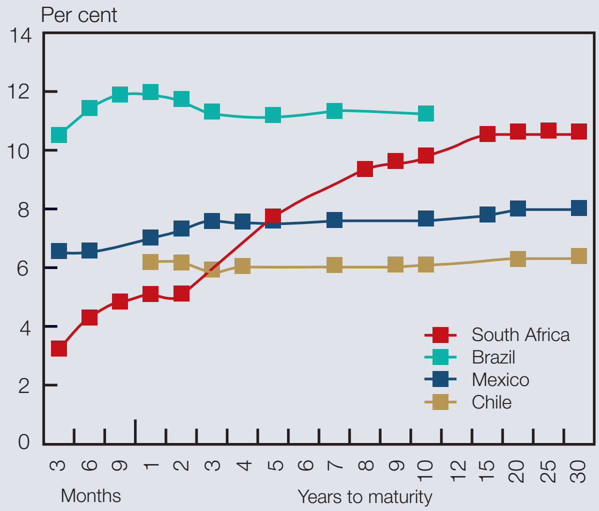
A decomposition of the 10-year nominal bond yield shows that the main drivers of the long end of the curve (for both the 10-year and 30-year yield) were the inflation differential and sovereign risk components, contributing 37.0% and 29.0% respectively by the end of 2021.[4] Sovereign risk continues to determine both short-end and long-end yields in South Africa.[5] The risk-free rate contribution, at 13.6%, has remained relatively stable over the 2019–2021 period. Its contribution has been higher at the long end than the short end during this period.[6] In addition, the real FX risk has also been rising gradually since the onset of COVID-19, contributing to higher yields.[7]

Evolution of SA's sovereign yield curve



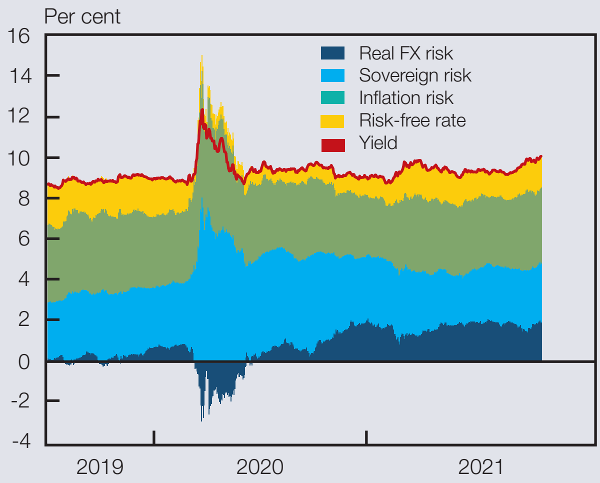
Source: Bloomberg

Selected emerging market sovereign yield curves, 2022



Source: Bloomberg

Decomposition of 10-year nominal bond yield



Source: SARB

1 A similar trend is observed for other emerging market economies, with term premium estimates around 2% or above and on an upward trend. See Center for Latin American Monetary Studies, 'Term premium estimates', https://www.cemla.org/DatosSelectosMacroeconomicos/Term%20premium%20estimates%20eng.html

2 See I Domowitz, J Glen and A Madhavan, 'Country and currency risk premia in an emerging market', *Journal of Financial and Quantitative Analysis* 33(2), 1998, pp 189–216.

3 This is based on work conducted by the South African Reserve Bank's Financial Markets Department in a research note titled 'A decomposition of the South African yield curve', which was published in February 2022.

4 This inflation differential/risk includes an inflation risk premium as well as inflation expectations. Therefore, the contribution of the inflation risk premium is smaller.

5 A decomposition of the two-year yield shows that the sovereign risk contributed, on average, 42.0% to yields between 2019 and 2021, compared to 30.0% by the inflation differential.

6 Since the end of 2021, the contribution of the risk-free rate at the short end of the yield curve has increased significantly due to the United States (US) two-year rate rising sharply (in comparison to the US 10-year rate) and adding pressure on yields at the short end of the South African yield curve.

7 A rising real FX risk could be due to foreign investor participation becoming more elastic since South Africa was excluded from the World Government Bond Index (WGBI) in 2020 as well as the increased emerging market FX volatility since the onset of COVID-19.

Box 5 Reforming the South African Reserve Bank's monetary policy implementation framework

In November 2021, the South African Reserve Bank (SARB) published a consultation paper outlining a new monetary policy implementation framework (MPIF). The paper proposes to switch from a shortage system, which has been in use since 1998, to a surplus system. Instead of draining bank reserves from the market to engineer a shortage, and then lending funds needed by banking institutions at the policy rate, the SARB would instead permit a market surplus. Banks would be able to place these funds, up to certain limits, at the SARB, and earn the policy rate.

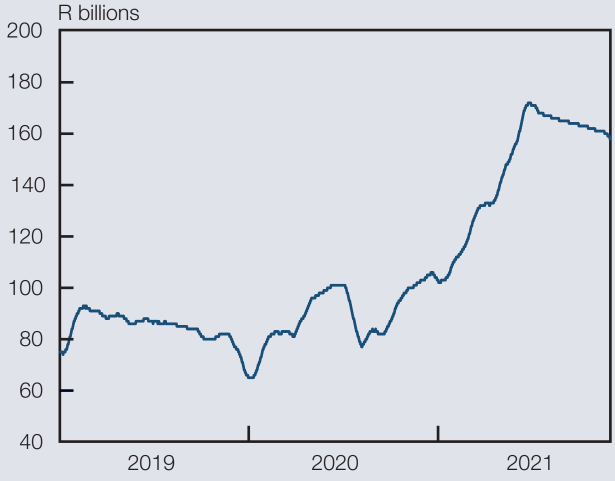
The new framework is expected to improve interest rate control, despite a large surplus of bank reserves. It will avoid some of the distortions and expense involved in the current implementation framework. A larger supply of highly liquid, safe assets is also likely to have financial stability benefits. In addition, a surplus system is likely to cope better with an interbank market made less active by regulatory changes, such as the large exposures framework.[1]

While the new approach will require open market operations to 'cash up' the system, a major expansion of the central bank balance sheet is not envisaged. The SARB has ample scope to add liquidity by unwinding existing liquidity-draining operations and replacing liabilities, such as foreign exchange swaps and Corporation for Public Deposit funds, with central bank reserves.

In the new system, reserve holdings of banks will be guided by caps that prevent banks from hoarding liquidity, helping maintain an interbank money market. This is similar to the 'tiered floor' systems used by the Reserve Bank of New Zealand and the Norges Bank.

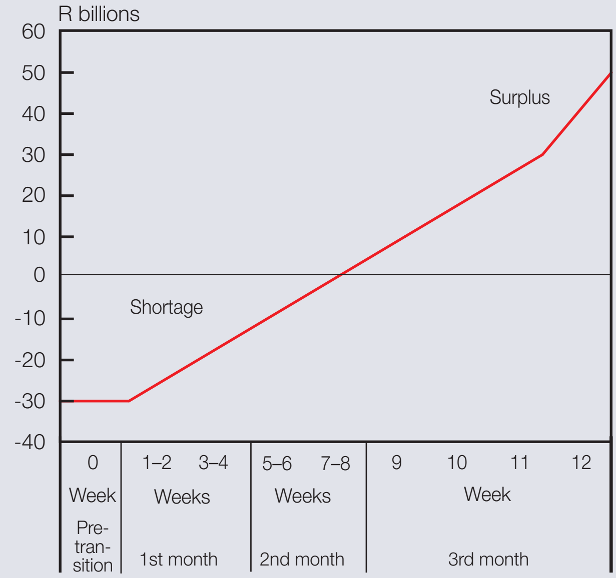
The SARB is currently finalising the proposal in light of inputs received during the consultation period, with the goal of implementing reforms this year. The transition to a new MPIF is expected to take around three months, with the system following a pre-announced path away from the existing shortage towards a surplus. Without a shortage for banks to fund, repo auctions will become steadily less important during this transition, with the SARB providing ample liquidity through open market operations instead.

Total liquidity-draining operations



Source: SARB

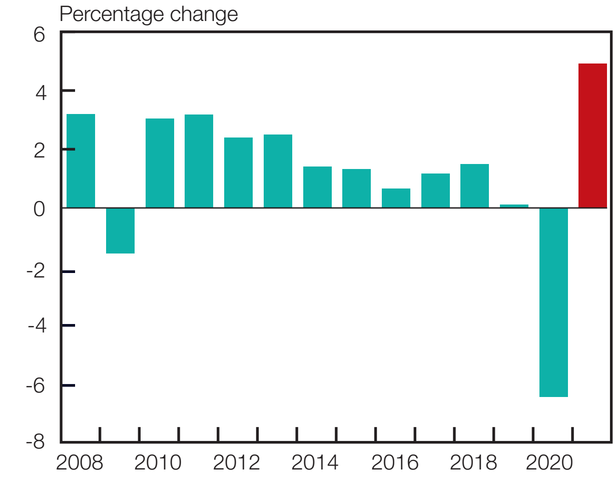
Illustrative transition path



Source: SARB

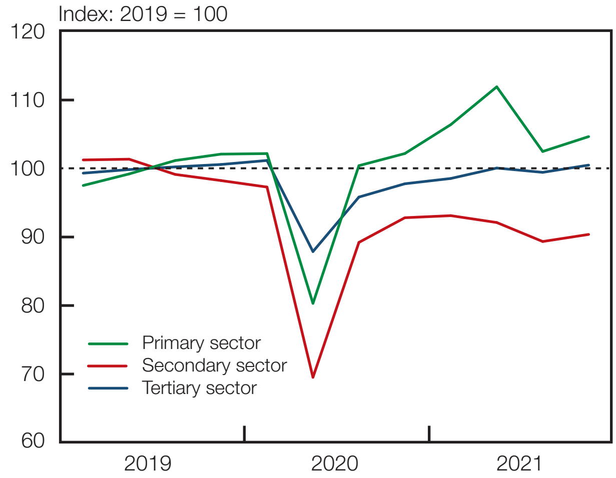
1 The large exposures framework restricts the total exposure a bank can have to any other institution. It is designed to limit risk by ensuring no bank has 'too many eggs in one basket'. This may reduce interbank market activity. The framework was entered into force on 1 April 2022, but banks moved to achieve compliance before this date.

Real GDP growth



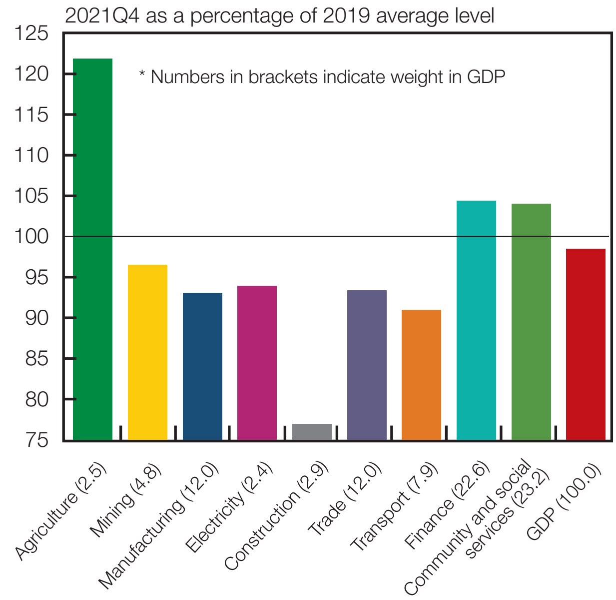
Source: Stats SA

Output, distance from 2019 levels



Sources: Stats SA and SARB

Gross value added*



Source: Stats SA

Real economy: recovery and its discontents

The domestic economy has made substantial progress in its recovery following the COVID-19-induced contraction in 2020, being just 1.5 percentage points shy of the 2019 output level by the fourth quarter of 2021. It grew by a robust 4.9% in 2021, despite the sharp contraction (1.7% quarter on quarter, seasonally adjusted) in the third quarter output on account of the July riots, load-shedding and a severe third wave of COVID-19 infections. The recovery has benefitted from stronger global growth and supportive domestic fiscal and monetary policy. Growth is projected to slow, averaging just below 2.0% over the medium term. The low growth momentum reflects binding structural constraints to investment and a less supportive global backdrop. Growth in 2022 would have been lower if not for the robust terms of trade. The implementation of structural reforms, such as embedded electricity generation in the energy sector, should improve the business climate and support domestic investment and growth.

Progress with the recovery

The South African economy grew at a robust pace of 4.9% in 2021, after the acute contraction of 6.4% in 2020.[29] Growth was helped by the stronger terms of trade amid buoyant commodity prices and a slower recovery in imports, firm consumer spending, and a pickup in investment. The progressive easing of lockdown restrictions enabled the broadening of economic activity, further supporting the recovery.

After delivering strong growth in the first two quarters of 2021 (1.0% and 1.3% respectively), the economy contracted in the third quarter. Growth of -1.7% quarter on quarter (revised), was worse than most forecasters had expected.[30] The third-quarter contraction was induced by civil unrest and the more stringent mobility restrictions associated with the third wave of COVID-19 infections, among other factors. Although the fourth quarter endured the Omicron variant and brief international travel bans, the government did not impose additional restrictions. This permitted the rebound in economic activity, and the economy grew by 1.2% quarter on quarter, bringing the real level of GDP to above 98% of its 2019 level.

The recovery continues to be led by the primary sector, which grew by 10.5% in 2021, underpinned by robust output growth in the agricultural sector. The secondary sector, despite growing by 4.6% in 2021, remains 10% below its 2019 level. Output in the tertiary sector, which is also the largest economic sector, has surpassed its 2019 level, driven by the finance subsector. Considering the subsectors, only agriculture; finance; and

29 The growth was lower than the 5.2% projected in the October 2021 *MPR*, but in line with the SARB's downwardly revised projection of 4.8% at the January 2022 MPC meeting.

30 Forecasts ranged from -1.2% to 2.5%.

community, social and personal services managed to improve on their 2019 output in 2021.[31] The rest of the subsectors are still below their pre-COVID levels, with construction and transport furthest behind.

The construction subsector entered the COVID-19 period in a very weak state, as both investment and value added have been in decline since 2017, and has remained in distress in the wake of the shock. It declined by 2.2% in the fourth quarter and is the only subsector that contracted in 2021. Confidence in the construction subsector remains low, with 91% of the Bureau for Economic Research (BER) survey respondents dissatisfied with the prevailing business conditions.[32] Unlike construction, manufacturing posted a 2.8% quarter-on-quarter growth in the fourth quarter of 2021, despite challenges associated with water supply adequacy, strike action in the steel industry, supply bottlenecks and load-shedding. While higher domestic and export selling prices were reported (up 19 index points and 27 index points respectively in the fourth quarter), manufacturers remain somewhat pessimistic about business conditions over the coming 12 months.[33] However, the subsector has had a good start to 2022, with output increasing by 1.9% month on month in January.

Despite elevated commodity prices and the sector having underpinned much of the recovery, mining contracted for a second successive quarter in the fourth quarter of 2021, following an upwardly revised contraction of 0.6% in the previous quarter. For the year, mining grew by 11.8% and was 3.5% shy of its 2019 output level by the fourth quarter. Factors such as inadequate transport logistics infrastructure, confrontational labour relations and load-shedding have held back the sector's recovery.

Within the tertiary sector, the transport and the trade subsectors grew by 2.2% and 2.9% respectively in the fourth quarter of 2021, following third-quarter contractions of 1.7% and 5.5% respectively. These subsectors, which are associated with tourism, bore the brunt of the lockdowns over the past year. By comparison, the retail subsector has fared better, with official trade sales for the fourth quarter 0.25 percentage points higher than pre-COVID-19 levels. This was also reflected in retailer sentiment which showed marked improvement, even compared to its pre-crisis average of 38 index points. The subsector, however, remains vulnerable to global and domestic supply chain bottlenecks, rising input costs and unstable electricity supply.

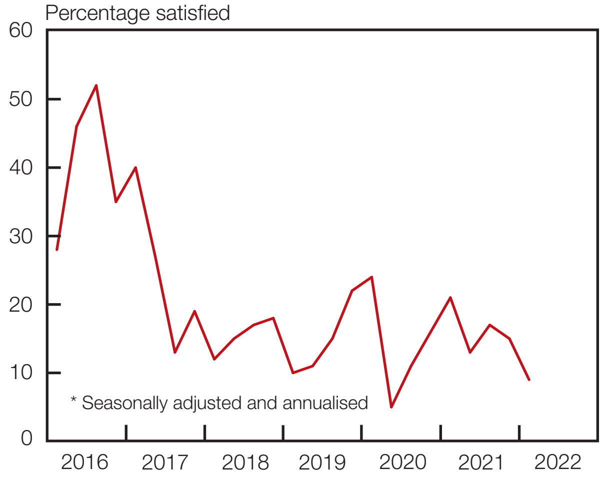
Concerns of scarring of the economy have arisen as the labour market has failed to reflect the stronger recovery in output. The official unemployment rate increased further, reaching a record high of 35.3% in the fourth quarter of 2021, up from

31 These three sectors make up just under 50% of total gross value added.

32 The FNB/BER Civil Confidence Index slipped to 9 index points in the first quarter of 2022.

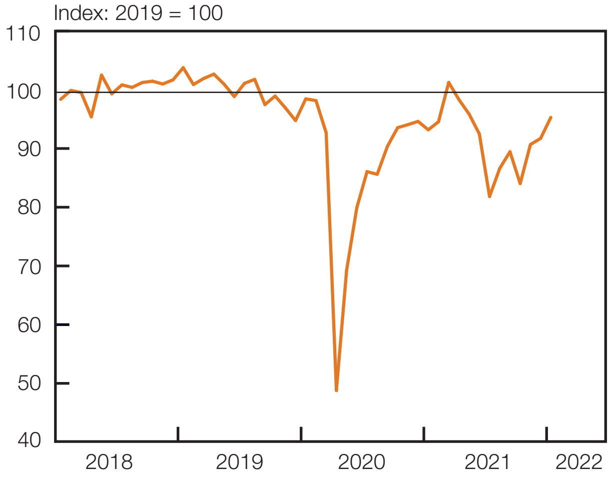
33 See the Absa/BER Manufacturing Survey. https://www.ber.ac.za/BER%20Documents/Manufacturing-Survey/?doctypeid=1067

Civil contractor confidence*



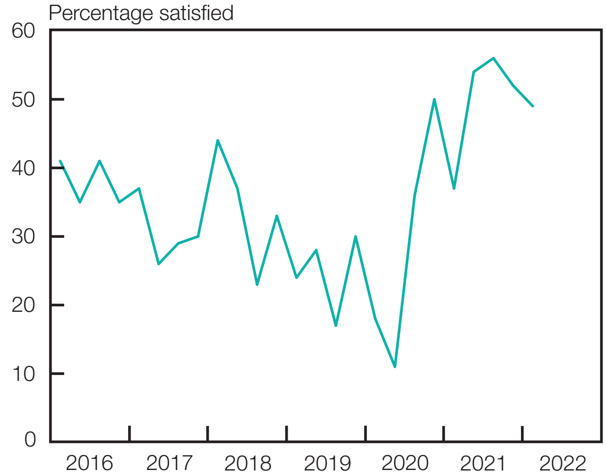
Sources: BER and Haver

Real manufacturing sales



Source: Stats SA

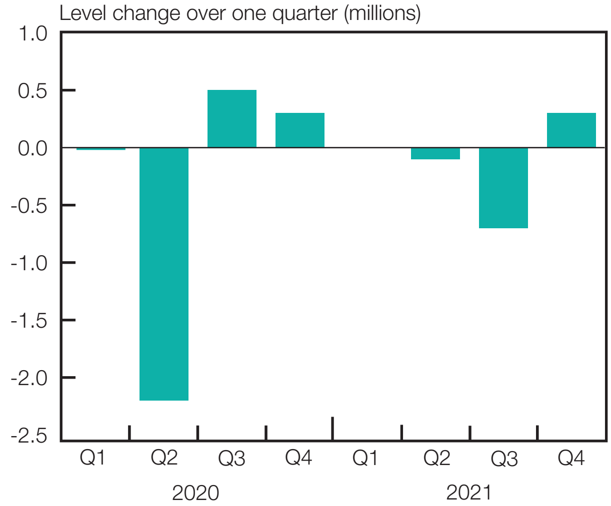
Business confidence: retail sales



Sources: BER and Haver

Employment gains/losses

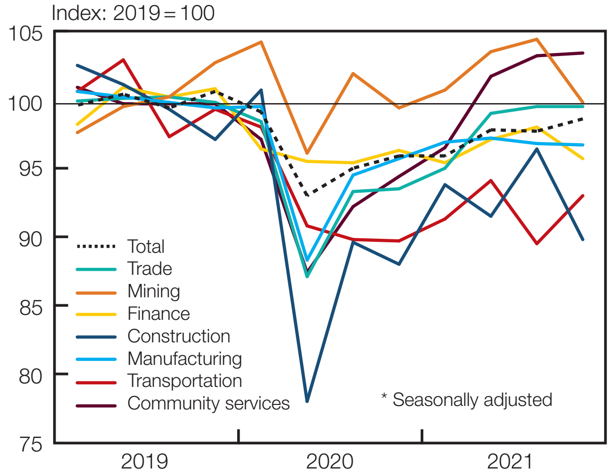
Level change over one quarter (millions)



Source: Stats SA

Real average wages*

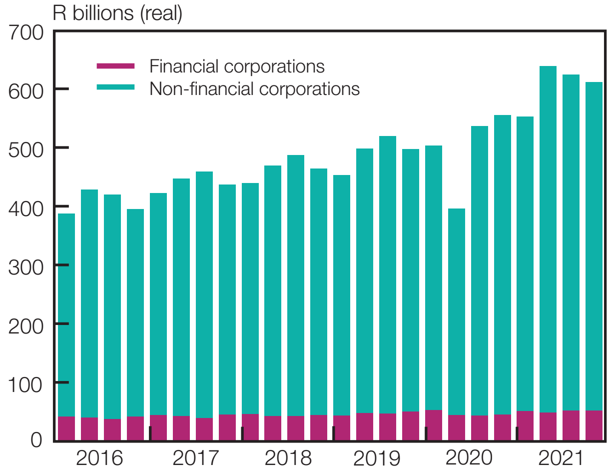
Index: 2019 = 100



Sources: Stats SA and SARB

Company surpluses

R billions (real)



Source: SARB

34.9% in the third quarter. After losing 2.2 million jobs during the second quarter of 2020 due to the adverse impact of the lockdowns, the economy had only recovered a net 396 000 jobs by the fourth quarter of 2021.[34] Unemployment will likely remain elevated, as labour-intensive sectors such as construction and tourism remain constrained and domestic growth moderates.

Despite the slower recovery in employment, average real private sector wages have recovered substantially, reaching 98.6% of their pre-pandemic level by the fourth quarter of 2021, partly reflecting large productivity gains.[35] As with the recovery in value added, there are substantial disparities across subsectors. Earnings remain below their pre-COVID-19 averages across all subsectors, except for mining as well as community, social and personal services.[36] The faster recovery in average wages and total compensation has supported household consumption. Household spending grew by 2.8% in the fourth quarter of 2021 after retreating significantly (-2.4%) in the third quarter. In level terms, this represents a return to its pre-pandemic standing. Growth in household spending is expected to slow in 2022, as pent-up demand fades and households start to feel the effects of sharply higher inflation, high fuel and electricity prices, and rising interest rates. However, the terms of trade gains and expected higher asset returns should offset most of these pressures, while social transfers should provide relief to low-income households.

On the back of stronger household consumption and demand for commodities, corporates have recently enjoyed higher selling prices, particularly in the mining and manufacturing industries. This has boosted profit margins, permitting them to record all-time high real surpluses in 2021. This, together with the easing of restrictions, has contributed to a modest improvement in corporate sentiment. Against this backdrop, corporate borrowing has begun to improve, driven by the loans and advances category (a category most associated with investment), though it remains well below pre-pandemic levels.[37] This bodes well for investment, which declined from 16% of GDP before the pandemic to around 14% to date.

On a quarterly basis, gross fixed capital formation (GFCF) rose by 1.9% in the fourth quarter of 2021, after a 0.4% contraction in the third quarter. The rebound was underpinned by private

34 It remains unclear whether the slow recovery in employment represents a long-term scarring of the labour market underpinned by fundamental shifts in the structure of the economy or a temporary phenomenon which will be reversed as the recovery of the economy progresses further.

35 Real total salaries and wages paid to workers have recovered to 94.3% of their 2019 fourth-quarter level. In rand terms, real total earnings decreased from R764.1 billion in the fourth quarter of 2019 to R734.3 billion in fourth quarter of 2021.

36 Higher average wages in mining reflect the windfall profits from the elevated commodity prices.

37 By December 2021, corporate borrowing was still 5.9% below the 2019 average, and even remained below its December 2020 level in real terms (by 1.7%).

sector capital outlays, which grew by 4.2% as firms increased their purchases of machinery and equipment. While investment is expected to improve further, its momentum continues to face challenges, including unstable electricity supply, transport inefficiencies, weak confidence, and slow progress in the execution of structural reforms.

The growth outlook

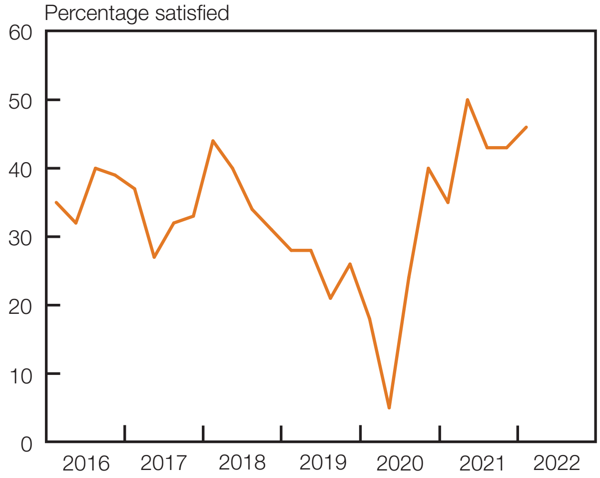
Both the global and the domestic economic landscapes have shifted markedly since the release of the October 2021 *MPR*, raising uncertainty around the future trajectory for GDP growth. Inflation has risen sharply in recent months, which could see policy normalisation being accelerated, while the Russia–Ukraine war presents new risks (and benefits) to growth, having already pushed oil, food and mineral commodity prices substantially higher. Taking these dynamics into account, the SARB expects the domestic economy to grow by 2.0% in 2022 and by 1.9% in both 2023 and 2024, slightly higher than the projections in the previous *MPR*. The subdued growth rates over the medium term suggest that the economy has mostly completed its recovery from the COVID-19 shock, and that the underlying structural constraints have become more binding.

Although the output growth outlook is muted, the economy is expected to expand significantly faster than potential, which is estimated at just 0.8% in 2022 and 2023, with a rise to 1.1% in 2024. Weak investment, electricity supply constraints, skills shortages, and high long-term borrowing costs are among the main contributing factors to lower potential growth. Indeed, the declining trend for potential GDP growth since the global financial crisis closely mirrors that for investment, which declined from a high of about 20% of GDP in 2008 to 14% in 2021. The output gap, which measures the distance of actual GDP from its potential level, is wider in the near term compared to the projection in the October 2021 *MPR*. However, the gap closes by the third quarter of 2023 (the same as in the previous *MPR*), as the economy is expected to grow much faster than potential. The wider near-term gap is due to a combination of downward revisions to GDP growth in 2021 and unchanged potential growth estimates (see Box 6).

Growth over the medium term will continue to be supported by household spending and exports as well as investment. Household spending is expected to continue to increase, although moderately, as interest rates rise and the COVID-19-induced fiscal stimulus fades. Growth in spending is also likely to be somewhat constrained by fragile consumer confidence, in part reflecting the slow recovery in employment and the sharply rising cost of living on the back of higher fuel and electricity prices. These effects will, however, be offset by the gains in the commodity export prices which have begun increasing again, driven by the Russia–Ukraine war, after moderating through the second half of 2021, and despite the expected deceleration in global growth. The higher commodity

Business confidence

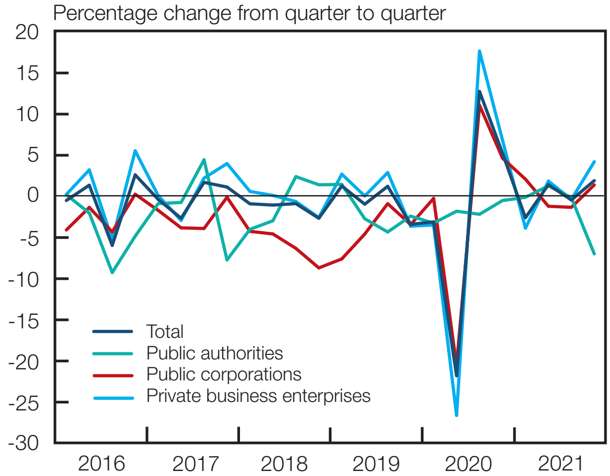
Percentage satisfied



Source: BER

Gross fixed capital formation

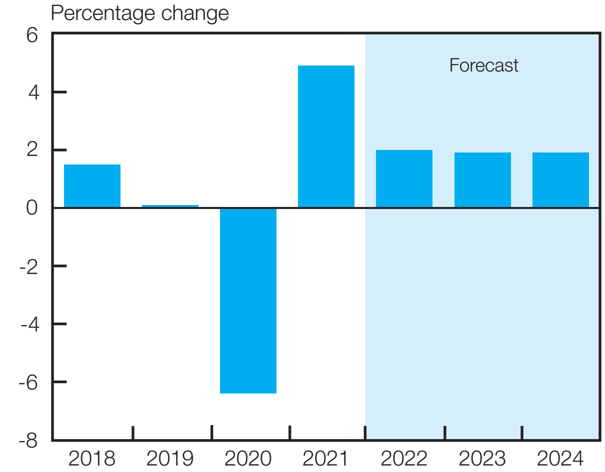
Percentage change from quarter to quarter



Source: Stats SA

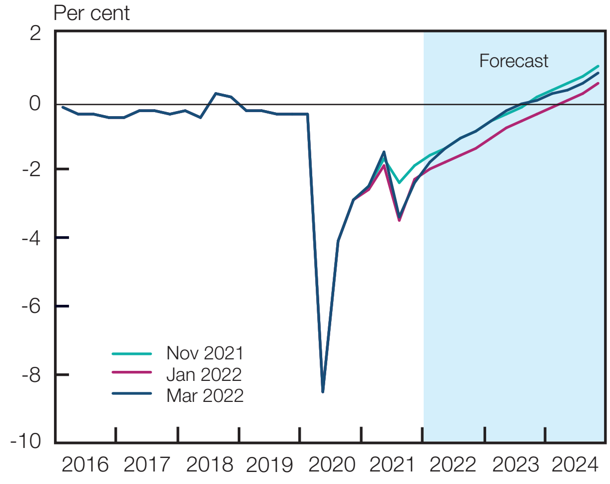
Real GDP growth

Percentage change



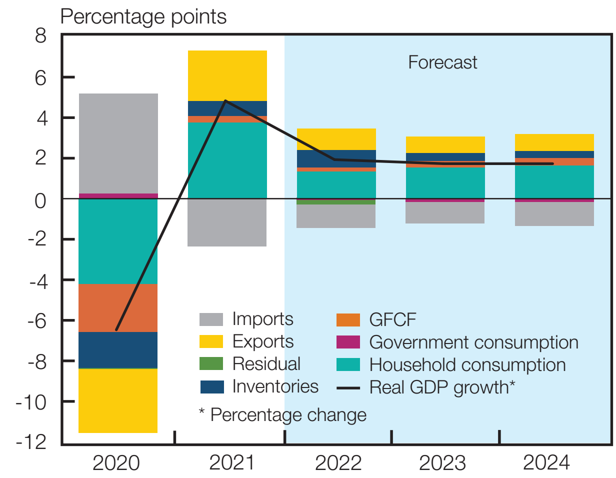
Sources: Stats SA and SARB

Output gap estimates



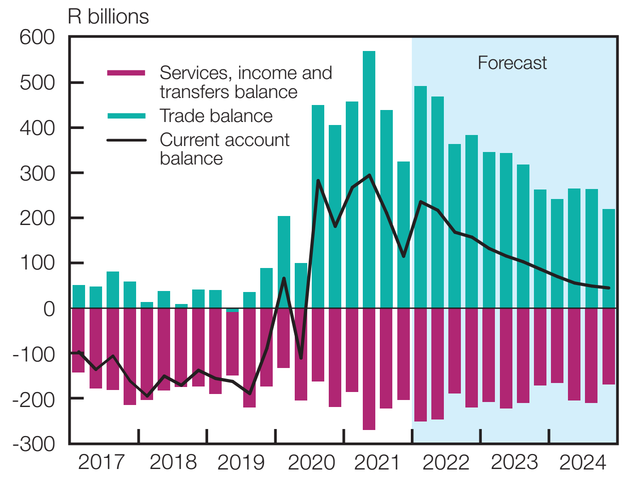
Source: SARB

Contributions to real GDP growth



Sources: Stats SA and SARB

Current account



Source: SARB

export prices should support export growth and growth in real consumption through both the terms of trade channel and the income effect, as well as household net wealth through the gains in asset prices.[38]

After five consecutive years of subtracting from GDP growth, investment spending grew by 2.0% in 2021, and is expected to rise further over the medium term, though off a low base, supported by firmer capital outlays by the private sector and public corporations. A timely roll-out of government infrastructure projects, such as the R812.5 billion outlined in the 2022 Budget, as well as the implementation of structural reforms to improve efficiencies in core infrastructure sectors could further incentivise the private sector.[39] Investment will also get a boost from the fifth round of the Renewable Energy Independent Power Producer Procurement (REIPPP) Programme, which includes various projects worth about R50 billion.[40] The reform and restructuring of the energy sector to permit for embedded generation and a more competitive electricity market could see massive private sector investment flows into the sector.[41] Gross fixed capital formation is expected to average 14.3% of GDP by 2024, well below the National Development Plan's 2030 target of 30%.

Load-shedding, however, will likely remain a constraint to growth and investment in 2022, after worsening progressively since 2019. The sharply higher diesel and coal prices could raise electricity generation costs considerably, potentially necessitating more severe load-shedding or sharply higher price increases.[42]

Macro balances

The current account and its drivers

Supported by the elevated commodity prices, the current account balance has remained in surplus since the release of the previous *MPR*, and for six consecutive quarters since the third quarter of 2020. The current account is impacted

38 Logistical constraints may limit the country's ability to leverage the higher commodity prices to raise net exports, particularly for bulk commodities such as coal and chrome (about 40% of export receipts in 2021). Non-bulk commodities such as platinum group metals and gold should, in principle, be able to benefit, though electricity supply challenges could impose a hard constraint on all producers.

39 The bulk of the government infrastructure spending is allocated to the transport, water and sanitation, and energy sectors.

40 Nedbank Group, Nedbank Capital Expenditure Project Listing, 30 July 2021.

41 Several energy generation projects were announced at this year's State of the Nation Address. These include the fifth window of the REIPPP Programme, which will add 2 600 megawatts (MW) of generation capacity; the liquid natural gas-to-power project, which will realize 3 000 MW of gas-generated power; and the development of 800 MW of capacity under the Risk Mitigation Independent Power Producer Procurement (RMIPPP) Programme, which is ready to proceed. Eskom also announced plans to invest R178 billion in transmission capacity over the next 10 years under its Transmission Development Plan (TDP).

42 Eskom's latest expectation is for up to 61 days of load-shedding between April and August 2022, following 29 days between January and March 2022.

predominantly by the trade account, which reached record-high surpluses over the past year. As commodity prices slipped from their peak and imports recovered, both the trade and the current account surplus moderated through the second half of 2021, with the latter declining to 1.9% of GDP in the fourth quarter, down from 3.5% in the third quarter. The current account further benefitted from a narrower services, income and transfers account (SIT). This deficit declined to 3.2% of GDP in the fourth quarter, down from 4.4% and 3.6% in the second and third quarters respectively.[43] The SIT balance benefitted from an improvement in net income receipts as dividend payments declined more sharply relative to receipts (a net improvement of R8.6 billion) in the fourth quarter. As South Africa's commodity export prices are projected to achieve further price gains, the current account balance is expected to remain in surplus over the forecast period, narrowing from 3.7% in 2021 to 3.0% in 2022, 1.6% in 2023 and to 0.8% in 2024.

Beyond the current account, the commodity boom has permitted the economy to enjoy increases in its terms of trade, which reached an all-time high of 128.5 index points in the second quarter of 2021. While it has moderated through the second half of 2021, the index remains elevated, reflecting high commodity prices and an incomplete recovery in imports, which has benefitted the rand exchange rate (see Box 7). The expected surge in commodity prices should further lift the terms of trade, supporting real income in the domestic economy.

Fiscal balances

Tax revenue windfalls associated with the high commodity prices helped lower the budget deficit to 5.7% of GDP in 2021/22, down from 7.8% at the 2021 *MTBPS*.[44] The public debt profile has also shifted lower, and debt is now expected to reach 69.5% (69.9% at the 2021 *MTBPS*) of GDP in 2021/22, and to stabilise at 75.1% in 2024/25. Debt-service costs, however, remain the fastest-growing expenditure item, and now dwarf spending on healthcare, consuming 10.7% of the budget over the Medium-Term Expenditure Framework (MTEF).

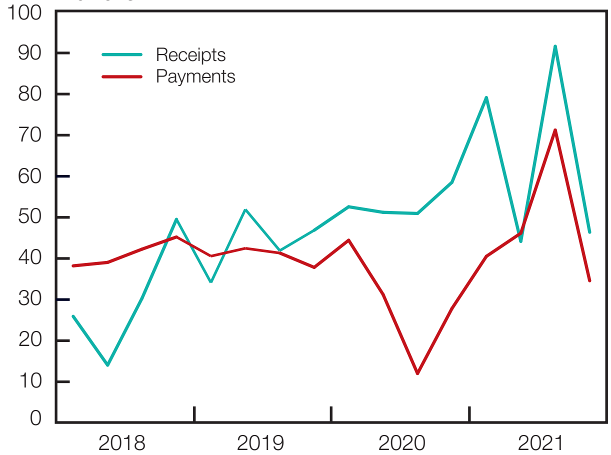
Commodity prices

Index: 2015 = 100

Source: SARB

Dividend payments and receipts

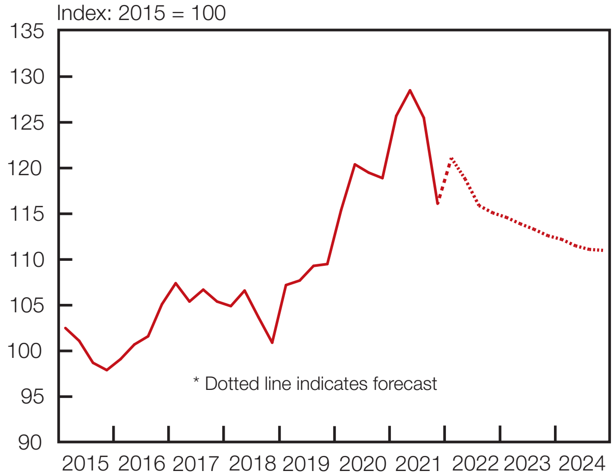
R billions



Source: SARB

Terms of trade

Index: 2015 = 100

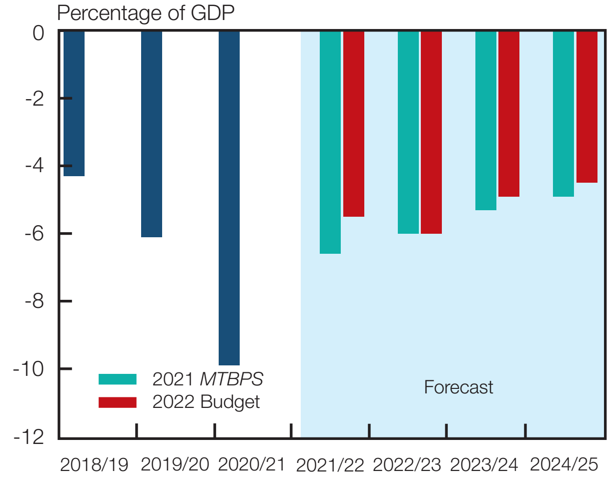


Source: SARB

43 The Naspers/Prosus share exchange partly explains the elevated services receipts during the third quarter. This share exchange impacted the direct and portfolio investment liabilities as well as the portfolio investment assets functional categories.

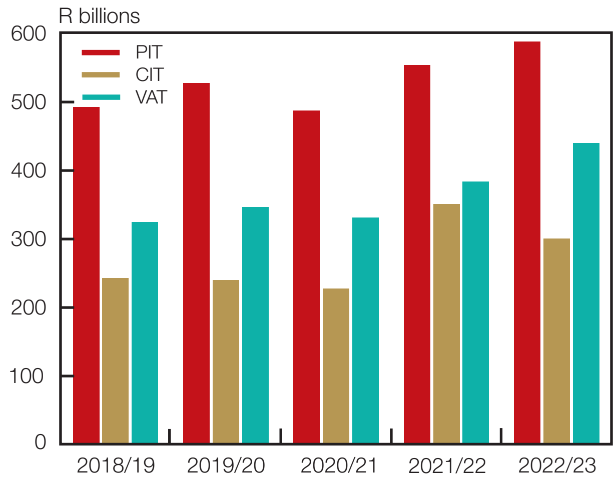
44 The deficit expands marginally to 6% in 2022/23, largely due to the extension of the SRD grant, and falls lower to 4.8% and 4.2% in 2023/24 and 2024/25 respectively.

Budget deficit



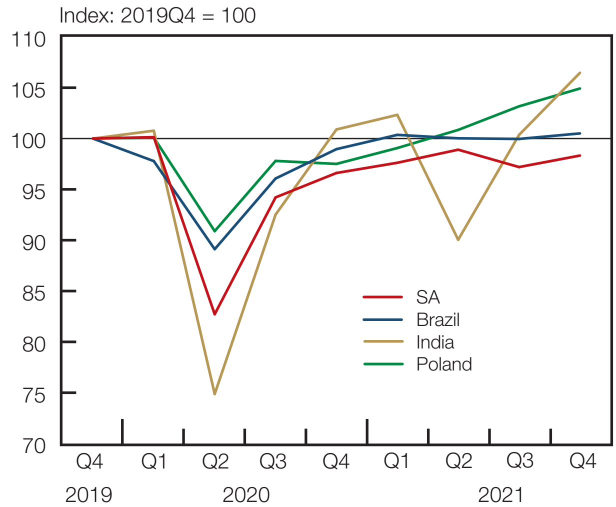
Source: National Treasury

Tax revenue



Source: National Treasury

South Africa versus emerging market peers (deviation from 2019 GDP levels)



Sources: Haver and SARB

Additional revenue windfalls of R61.7 billion in 2021/22 (relative to the 2021 *MTBPS* projection) are now expected as all the major tax categories – corporate income tax (CIT), personal income tax (PIT) and value-added tax (VAT) – have performed above expectation. Revenue is expected to continue to overperform over the medium-term, supported by the elevated commodity prices.[45]

The 2022 Budget reaffirmed the government's commitment to fiscal consolidation as exemplified by real government spending, which is projected to decline over the MTEF. Non-interest spending is projected to expand by 2.1% in nominal terms over this period, driven by the Social Relief of Distress (SRD) grant extension to March 2023, which will add an additional R44 billion to spending, as well as the wage bill allocation of R20.5 billion.[46] Debt-service costs are projected to absorb 18.9% of gross tax revenue in 2022/23. A key component of government spending – the public sector wage bill – continues to add uncertainty to expenditure estimates, with substantial upside risk, given more elevated inflation.[47]

Conclusion

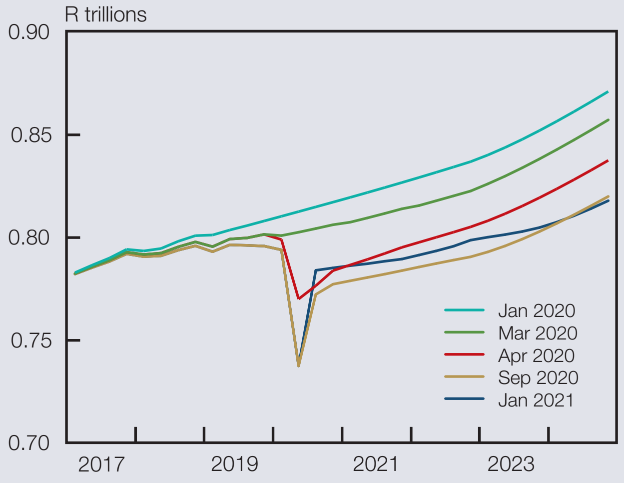
The domestic economy achieved notable gains in output in 2021, but its failure to move beyond the 2019 level two years after the COVID-19 shock reveals the binding nature of the constraints to economic growth, which have made South Africa lag peer emerging markets. The outlook for investment and growth remains hostage to energy supply constraints, an unconducive investment climate and high long-term borrowing costs, among other factors. Although commodity prices remain elevated, the global environment has become less supportive of domestic growth, as higher global inflation has seen a more rapid withdrawal of policy accommodation. In addition, geopolitical tensions in Eastern Europe have driven commodity and food prices higher and contributed to heightened uncertainty. Policy interventions such as skills development, reforming the core infrastructure sectors of energy and logistics, and improving the ease of doing business will support higher investment and enhance domestic growth and job creation.

45 The 2022 Budget tax revenue projections are higher than the 2021 *MTBPS* estimates by R71 billion in 2022/23, R86.3 billion in 2023/24 and R92.4 billion in 2024/25.

46 Government allocated the additional funds to meet the cost of the 2021 public sector wage agreement.

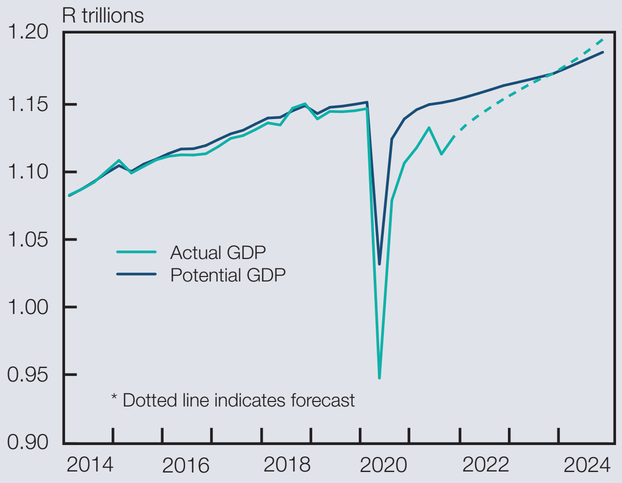
47 The wage dispute relating to the 2018 wage agreement that went to the Constitutional Court has been resolved in favour of National Treasury easing potential strain on the fiscus.

Potential GDP estimates: pre-benchmarking



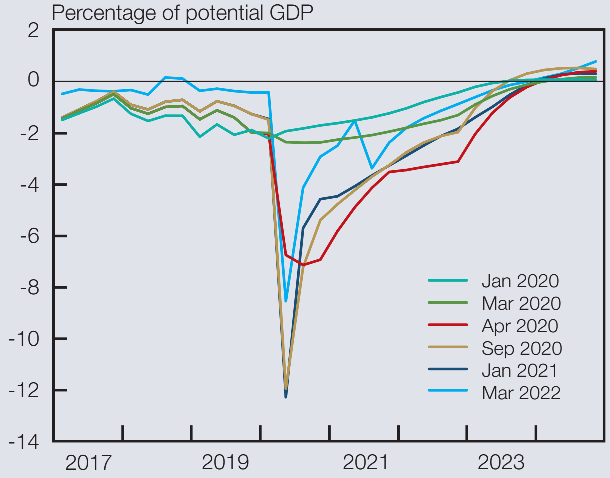
Source: SARB

Actual and potential GDP: post-benchmarking



Sources: Stats SA and SARB

Output gap estimates



Source: SARB

Box 6 Impact of GDP revisions on the output gap

Monetary policy operates through several channels: output relative to potential (the output gap); interest rate differentials and the exchange rate; and inflation expectations. This box looks at factors shaping the output gap channel. The output gap reflects deviations in the level of real output from its potential level.[1] All other things being equal, a positive (negative) output gap exerts upward (downward) pressure on inflation, while the effect is neutral when the level of gross domestic product (GDP) is equal to its potential level. The conduct of monetary policy is complicated by the fact that the 'output gap' and 'potential output' are unobservable, and their estimates are subject to considerable uncertainty and revisions.

The South African Reserve Bank (SARB) uses a semi-structural multivariate filter to estimate potential growth.[2] The approach extracts the underlying growth trend from actual GDP data. To avoid excessive volatility in potential growth estimates, revisions to potential output tend to be less frequent.[3] As a rule, the SARB strives to re-estimate potential output once a year, when a full-year set of data is obtained. However, this was not possible over the past two years. First, the rebasing and benchmarking of GDP data by Statistics South Africa (Stats SA) in August 2021 necessitated the re-estimation of potential at the September 2021 Monetary Policy Committee (MPC) meeting. Second, the COVID-19 shock entailed exceptional uncertainty for forecasting, particularly whether the shock was primarily a demand or supply shock. The assumptions about the nature of the shock carried implications for trend growth and required the SARB to adjust its estimates as new information came to light.

The rebasing and benchmarking exercise revised GDP upwards and investment downwards, with the investment-to-GDP ratio being about 2 percentage points lower than was previously estimated. As a result, potential output was revised slightly lower at the September 2021 MPC meeting, resulting in an historically narrower (i.e. less negative) output gap.

As the economy adjusted to the COVID-19 shock, GDP repeatedly surprised by wide margins, challenging the earlier assessment of the distribution of the shock and necessitating revisions to potential.[4] Early analyses suggested the shock was half demand and half supply, justifying a downward revision to potential. Following the sharp contraction of 17.4% between the first and second quarters of 2020, GDP, however, rebounded markedly in the third quarter (13.9% quarter on quarter), pointing to a stronger supply response as the economy reopened. Over several MPC meetings, the estimates of the shock improved as more information became

1 Potential output is the maximum level of output attainable at any given point in time when all productive resources are fully employed.

2 The method also accounts for short-term supply shocks such as load-shedding, strikes, droughts and, more recently, the COVID-19-related supply disruptions.

3 South African GDP numbers exhibit markedly high volatility. Therefore, revising potential growth with every data release would introduce excessive volatility in potential. Potential output growth is a slow-changing variable, driven by factors such as the growth rate of labour and capital stock as well as total factor productivity.

4 These analyses were, however, subject to exceptionally high uncertainty.

available, and so did the revisions to potential growth estimates.[5] With hindsight, the contraction in the second quarter of 2020 is now estimated to have been more supply than demand driven, and the output gap narrower than was projected in real time.

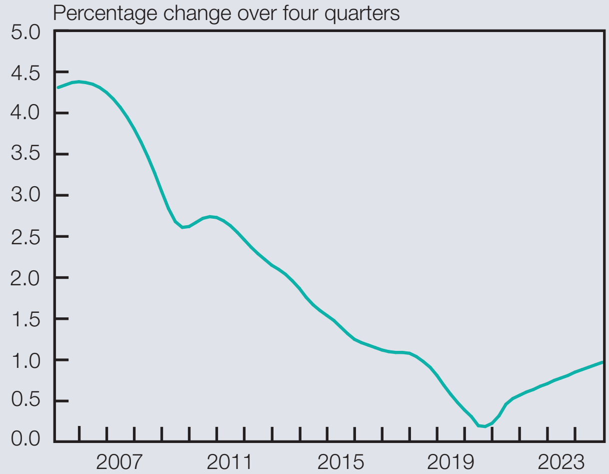
Weak investment, together with the persisting electricity supply constraints, underpin the decline in underlying trend growth estimates and the several downward revisions to potential.[6] The same factors also explain the subdued GDP growth achieved since the global financial crisis.

5 For example, following the initial estimate of the impact of COVID-19 on potential output at the (unscheduled) April 2020 MPC meeting, potential output estimates were revised at the September 2020 and January 2021 meetings. The first revision was occasioned by the significant downside surprise in the GDP release for the second quarter of 2020 (-17.4% quarter on quarter versus the SARB estimate of 12.0%), resulting in a downward revision to the potential output estimate for 2020. The latter revision was prompted by the stronger-than-anticipated rebound of GDP in the third quarter of 2020 (13.9% quarter on quarter versus the SARB estimate of 10.7%), hence the upward revision to potential output.

6 The Quarterly Projection Model's (QPM) estimates for potential growth are 0.8% in 2022 and 2023 and 1.1% in 2024.

Underlying trend growth

Percentage change over four quarters



Source: SARB

Box 7 The real effective exchange rate and the terms of trade

Commodities constitute a large weight in South Africa's export basket and are a primary determinant of the country's terms of trade and exchange rate level.[1] When the terms of trade are elevated, the current account benefits from higher net export receipts, which should appreciate the currency, and vice versa. However, the typically strong correlation between the real exchange rate and the terms of trade tends to break down when the South African risk premium rises sharply.

As discussed in the October 2021 *Monetary Policy Review (MPR*), the combination of rapidly rising export prices and only moderately rising import prices saw a surge in the terms of trade to its highest level on record of 128.5 index points in the second quarter of 2021.[2] These gains were reflected in the strengthening of the real effective exchange rate (REER) of the rand, which improved from 104.5 index points in the third quarter of 2018 to 109.7 index points in the second quarter of 2021. As the terms of trade weakened following the sharp rise in oil prices recorded since the second quarter of 2021, so has the REER.[3] That relationship is common and consistent with the international literature and strengthened in the six years leading up to the COVID-19 pandemic.[4] However, the correlation broke down during the pandemic, with the REER weakening sharply, reaching a trough of 93.6 index points in the second quarter of 2020.

1 The terms of trade reflect the ratio in which export and import prices move. Terms of trade improve when export prices rise faster than import prices (and vice versa). In 2021, commodity exports' share in total exports was 68.3%.

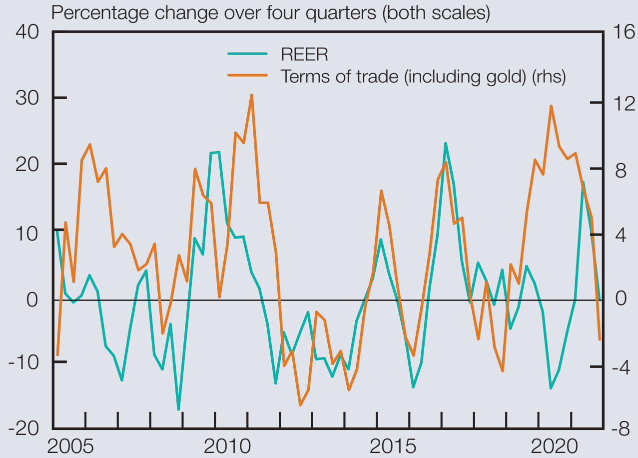
2 E Visser and T Janse van Rensburg, 'The surge in South Africa's terms of trade – truly exceptional?', *South African Reserve Bank Research Brief No. RB/2021/09*, Pretoria: South African Reserve Bank, August 2021.

3 The terms of trade, however, remain elevated, and should benefit from the recent renewed strengthening in commodity prices.

4 See, for instance, V Coudert, C Couharde and V Mignon, 'Do terms of trade drive real exchange rates? Comparing oil and commodity currencies', *CEPII Working Paper No. 2008 32*, 2008.

Effective exchange rate and terms of trade

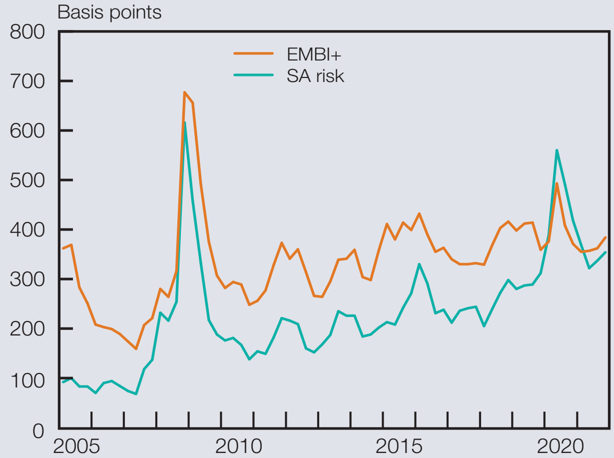
Percentage change over four quarters (both scales)



Source: SARB

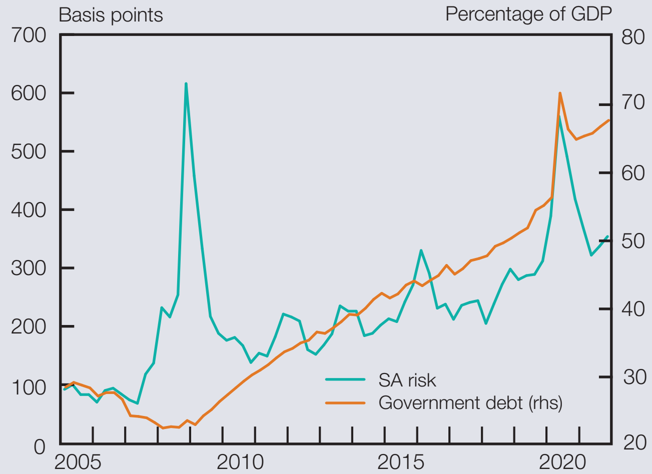
EMBI+ and SA risk

Basis points



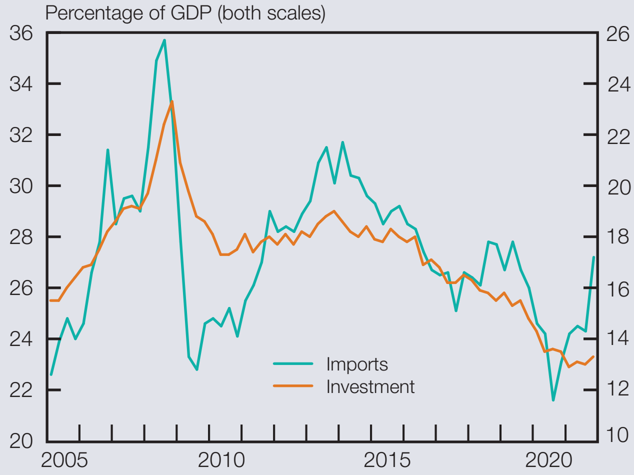
Sources: Bloomberg and JPMorgan

Government debt and SA risk



Sources: JPMorgan and SARB

Imports and investment



Sources: Stats SA and SARB

What explains the breakdown in the strong correlation in 2020? The answer lies largely in the sharp increase in the South African risk premium, which increased from around 310 basis points in the final quarter of 2019 to 560 basis points in the second quarter of 2020. This is explained by a global risk-off episode during the heightened uncertainty around the COVID-19 pandemic – not unlike what happened during the global financial crisis (GFC) when investors also fled more risky emerging market assets. However, there is a significant difference between these two risk-off episodes. During the GFC the South African risk premium rose in line with those of other emerging markets (global factors), but during the COVID-19 pandemic South Africa's risk premium was driven more by idiosyncratic factors (South African fiscal debt increased sharply).

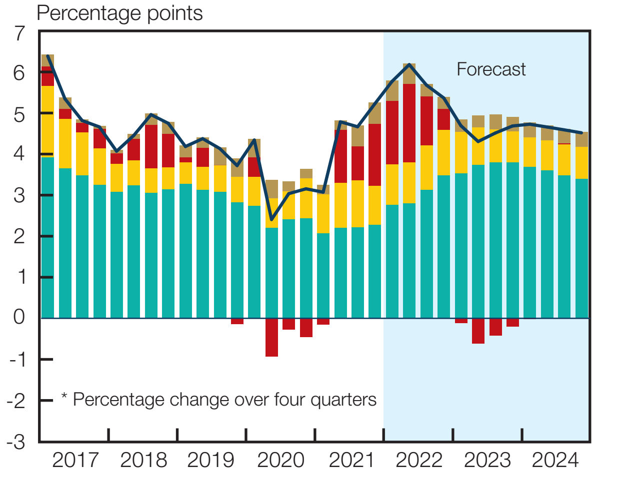
A simple ordinary least squares (OLS) regression indicates that changes in the REER are well explained by changes in the terms of trade and deviations in the risk premium from its four-quarter moving average. In particular, a 1% increase in the terms of trade appreciates the REER by about 0.4 percentage points. However, when the risk premium rises 1% above its four-quarter moving average, the REER depreciates by about 8%.

Does the strong correlation between the terms of trade and the REER during 'risk-on' episodes result in the South African economy suffering from Dutch disease? Symptoms of the latter may come in the form of a higher import penetration ratio, as an overvalued exchange rate renders domestic output uncompetitive against cheaper imports. Although imports as a share of gross domestic product (GDP) have been declining since 2014, the decrease is largely related to the fall in the investment/GDP ratio over the period, as both ratios declined by between 6 percentage points and 7 percentage points of GDP between the first quarter of 2014 and the third quarter of 2021. Therefore, had capital goods imports not declined, import penetration would likely have increased, confirming the adverse impacts of an overvalued REER on domestic economic activity.[5]

5 Pulumo (2020) finds evidence of Dutch disease in South Africa. See S Pulumo, 'Dutch disease and its effects in South Africa', *South African Reserve Bank Economic Note No. EN/2020/03*, Pretoria: South African Reserve Bank, February 2020.

Contributions to headline inflation

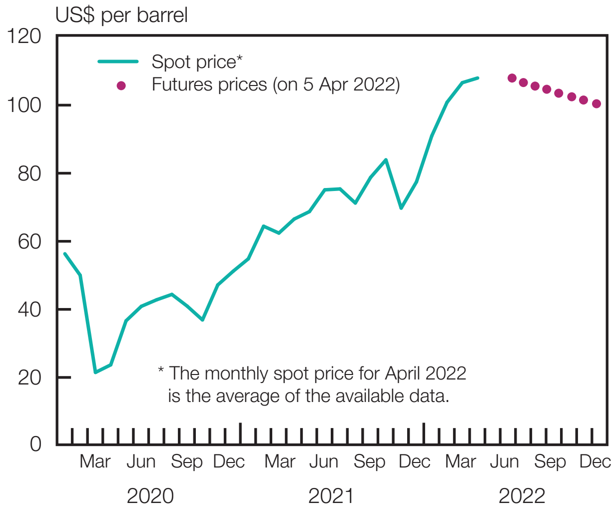
Percentage points



Sources: Stats SA and SARB

Brent crude oil price

US$ per barrel



Source: Bloomberg

Price developments: fading disinflationary effects, heightened risks

Headline inflation has accelerated markedly over the past year due to sharply higher fuel and food prices, and is now forecast to average 5.8% this year, up from 4.5% in 2021 and 3.3% the year before. Core inflation pressures have become more broad-based and less disinflationary, while administered price inflation remains extremely high, contributing to a high-cost structure for the economy. The Russia–Ukraine war has raised energy prices significantly further. Food prices are expected to be severely impacted by higher input costs and supply disruptions. The expectation is for headline inflation to return closer to the target midpoint in 2023, supported by fuel price base effects and a moderation in oil prices, and to hover around the midpoint into 2024. Risks are tilted to the upside.

After remaining subdued since 2019, South Africa's headline CPI inflation exceeded the midpoint of the 3–6% target range in May 2021 due to sharply higher fuel and food prices. Inflationary pressures have increased considerably since the beginning of the year. The Brent crude oil price touched US$130 per barrel in early March in response to the Russia–Ukraine war, before moderating somewhat. Fuel inflation is now expected to average 26.1% in 2022, up from the 3.7% projected in the previous *MPR*. Headline inflation is projected to remain above the target midpoint in 2022, and to break through the 6.0% upper ceiling, before returning closer to the target midpoint in 2023.[48]

The sharp rise in inflation presents an unwelcome development, as South Africans have become accustomed to low and stable inflation closer to the target midpoint ever since the MPC communication in 2017 of a clear preference for the 4.5% target midpoint. Expectations for inflation fell sharply following the MPC communication and settled closer to the midpoint, though they have tended to drift below or above the target midpoint following shocks to headline inflation.[49] Keeping the expectations for inflation closer to the target midpoint is a key objective of the SARB's monetary policy.

Although the breach of the target midpoint is attributed to food and fuel prices, inflationary pressures have broadened in line with the normalisation of economic activity from the pandemic-induced lows, while risks have increased. The output gap has narrowed, indicating a recovery in demand and with it the lift in core inflation, albeit from a low base. The global backdrop is marked by far higher inflation than expected even six months ago, with elevated commodity prices, particularly oil and

48 This projection does not account for the recent announcement of a temporary R1.50 reduction in fuel prices.

49 For a long time, inflation expectations remained stuck at the upper limit of the target range, but trended lower following the MPC communication on the target midpoint. Inflation expectations for 2021 dropped below 4.0% in the 2021 first-quarter survey, while the two-year-ahead expectations were at 4.4%. By the first quarter of 2022, current year inflation expectations averaged 5.1%, while the two-year-ahead expectations settled at 5.0%.

food, presenting risks of imported inflation. While the relatively appreciated rand and deflating import prices have helped keep domestic price inflation low over the past 18 months, the risk of reversal has increased considerably, with import prices already inflating fast and the rand expected to weaken somewhat.

Oil prices and fuel inflation

Brent crude oil prices increased sharply during the period under review, nearly doubling between January 2021 and February 2022. The Brent crude oil price averaged US$97 per barrel in February 2022, up from US$55 in January 2021. Oil prices touched the US$130 per barrel mark on 9 March 2022 before receding somewhat. The current projection for 2022 is much higher (54%) than the projections in the October 2021 *MPR*, where oil was expected to average US$67 in 2022 and moderate over the medium term. The Russia–Ukraine war, a sharper-than-anticipated recovery in the global economy, and production deficits by the Organization of the Petroleum Exporting Countries (OPEC) have contributed to the exceptionally steep price increase.[50]

Although oil markets appear to have settled despite the persistent high uncertainty, prices could escalate further should Russia's oil exports be additionally sanctioned or if oil is substituted for natural gas in Europe as shortages of the latter worsen.[51] The slower supply response, in part due to the reduced capital expenditure in oil production and infrastructure following the oil price crash of April 2020, could aggravate the demand/supply imbalance and add to the already heightened uncertainty.[52, 53] Oil prices are expected to average US$103 in 2022, US$80 in 2023 and US$75 in 2024 – a large upward revision compared to the expectations in the previous *MPR*.

The pass-through of higher oil prices to domestic fuel prices is largely immediate and complete, as the market is regulated. Pump prices increased sharply to R21.60 per litre in March 2022, up from R18.33 in October 2021 (for Gauteng). The effect on pump prices was worsened by the simultaneous depreciation of the rand, from R14.53 in September 2021 to R15.41 in March 2022, and increases in fuel taxes and margins, which rose by a cumulative 65 cents per litre between August and December 2021.[54] The February 2022 Budget, however, included no increase in the general fuel levy or the Road Accident Fund levy, providing some relief to consumers.

50 Some members of OPEC have fallen short of the production targets agreed to in August 2021.

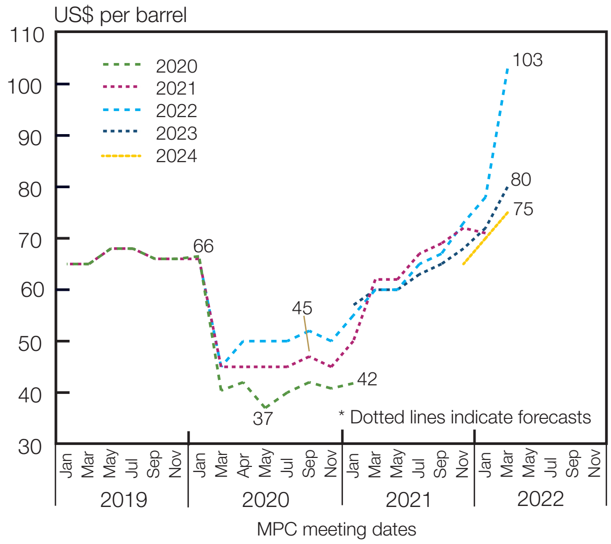
51 Russia is the third-largest global producer of crude oil and second-largest for natural gas.

52 Concerns about stranded assets as the world is poised to transition to a low-carbon global economy could also be a factor.

53 The expectation for increased production from OPEC+, the US and other non-OPEC countries, and the likely expansion in production capacity spurred by the current high price of oil present downside risks to the oil price.

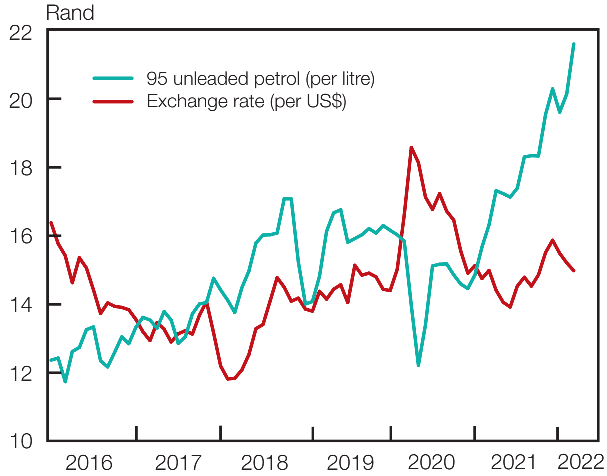
54 The large increase arose from the adjustments in the slate levy of 42 cents over that period.

Evolution of oil price forecasts*



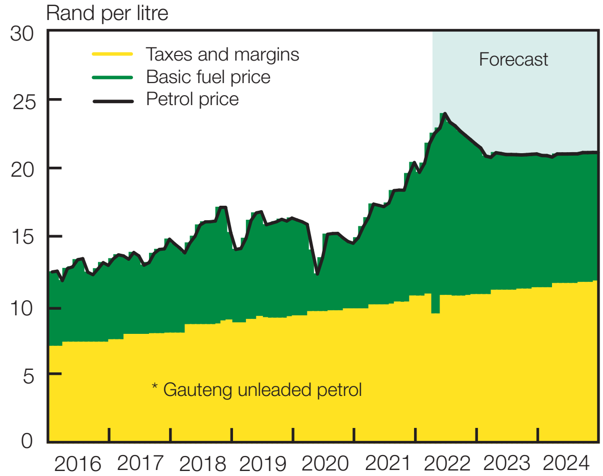
Source: SARB

Gauteng unleaded petrol price



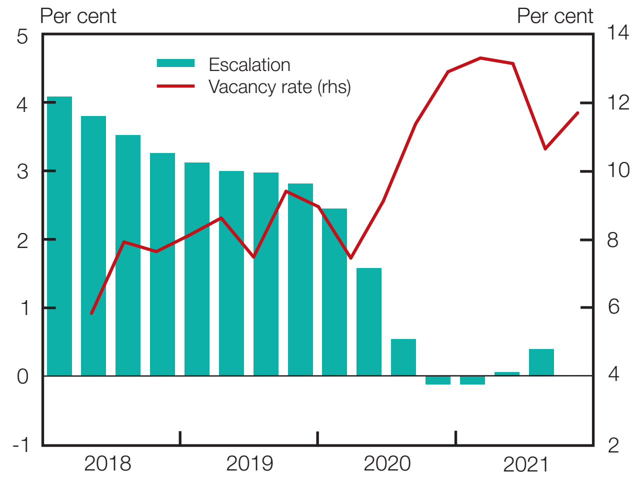
Sources: Bloomberg and Central Energy Fund

Petrol price decomposition*



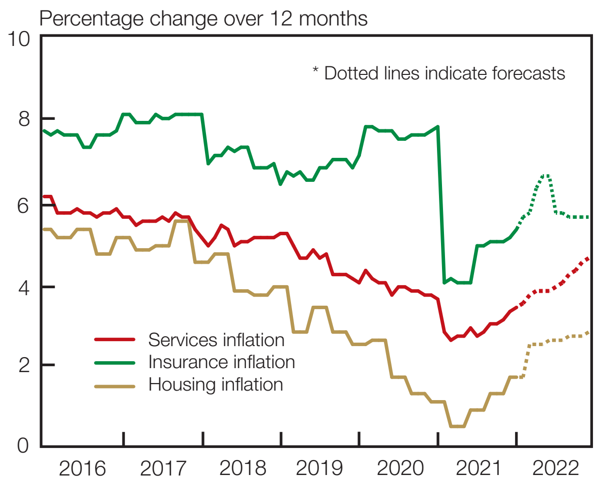
Sources: Stats SA and SARB

Rental escalation and vacancy rate



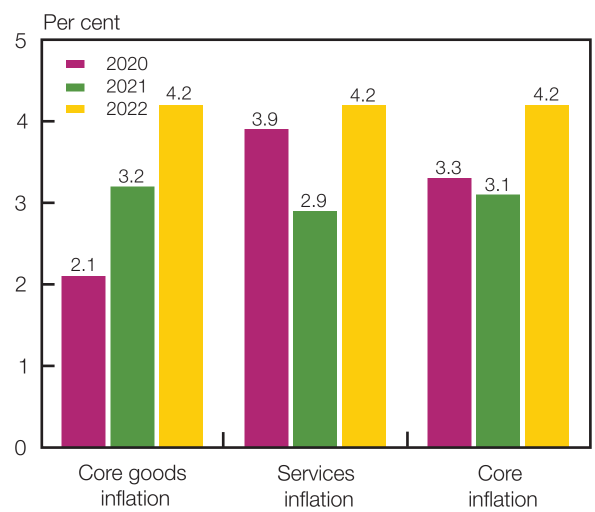
Source: TPN Credit Bureau

Services inflation*



Sources: Stats SA and SARB

Components of core inflation



Sources: Stats SA and SARB

Fuel inflation averaged 18.1% in 2021, higher than the 16.1% projected in the October 2021 *MPR*, and is now expected to average 26.1% in 2022, -7.1% in 2023 and 0.0% in 2024.[55]

Core inflation

Core inflation has diverged materially from headline inflation over the past year as it remained well contained, averaging 3.1%, down from 3.3% the year before (2020). The subdued core inflation is due to very low services inflation and still low core goods inflation, though it has shown upward momentum since the release of the previous *MPR*, consistent with the recovery in economic activity.[56] Looking ahead, core inflation is expected to accelerate as the output gap closes and inflation expectations drift up, and is also expected to accelerate due to higher imported inflation, rising to 4.2% in 2022, 5.0% in 2023 and 4.7% in 2024.

The relatively low services inflation in 2021 was due to the benign housing inflation and historically low insurance inflation. Housing inflation was weaker at the start of 2021 as the supply of rental space far exceeded the demand. While the expectation was for the prices of rentals and owners' equivalent rent to remain subdued for longer, housing inflation surprised on the upside in the second half of 2021, as the faster recovery in worker earnings improved the financial standing of tenants. Housing inflation recorded 1.0% in 2021, slightly higher than the October 2021 *MPR* forecast of 0.9%. On the back of improved household finances, housing inflation is forecast to accelerate to 2.5% in 2022 compared to 2.1% at the time of the October 2021 *MPR*.

For a second successive year, medical aid schemes have indicated less aggressive price increases. This follows the very low (by historical standards) medical insurance inflation of 5.6% in 2021, down from 9.5% in 2020, and the total insurance average of 4.8%, down from 7.6% the year before. Expectations were that the relief on medical insurance would be temporary and that price increases would revert to their long-term average of 9.0% in 2022. As a result, the *MPR* forecast for 2022 is thus revised lower to 6.7%, down from 9.0%.[57]

Core goods inflation exerted upward pressure on core inflation in 2021 as base effects from 2020, supply chain bottlenecks and a weaker rand translated into higher price increases, particularly for vehicles, spare parts, and alcoholic beverages and tobacco. These components averaged 5.0% (3.8%),

---

55 The government recently announced a temporary reduction in the general fuel levy of R1.50 per litre for a period of two months, namely, April and May 2022, with additional relief measures under consideration. This will directly lower the 2022 fuel inflation by 1.7 percentage points and administered prices by 0.4 percentage points. The QPM projections reported here are from the March MPC meeting and do not account for this policy announcement.

56 Services inflation averaged 2.9% in 2021, down from 3.9% in the previous year, while core goods inflation edged higher to 3.2%, up from 2.1% in 2020.

57 The February CPI outcome for medical insurance came out lower than what was forecasted, suggesting that there might be a downward revision to the current 6.7% forecast.

9.2% (5.9%) and 4.6% (3.4%) respectively in 2021 (2020). Although supply chain bottlenecks have started to ease in 2022, the expectation is for higher imported inflation, reflecting both higher goods prices and a weaker rand. Elevated producer prices add to inflationary pressure on goods (see Box 8). Core goods inflation is projected at 4.2% this year, rising to 5.1% in 2023 and 4.9% in 2024.

Administered prices

The regulated/administered price component of the CPI inflation basket is projected to average 12.2% in 2022, up from 9.2% in 2021, and to slow to 1.9% in 2023, mainly from base effects of the oil price rally in 2022 and the expected moderation in oil prices. Administered prices have historically inflated at rates markedly higher than the target midpoint, underpinned by fuel and electricity inflation. Electricity price inflation will average 11% in 2022 and is projected at 9.2% in 2023 and 10.0% in 2024.[58] Education inflation, which averaged 4.5% in 2021, is expected to rise to 4.9% in 2022, 5.4% in 2023 and 5.5% in 2024. The projections for education inflation are in line with the Minister of Education's recent proposal (which is non-binding) for universities to increase tuition fees for this year by 4.3% and student accommodation by 6.3%.

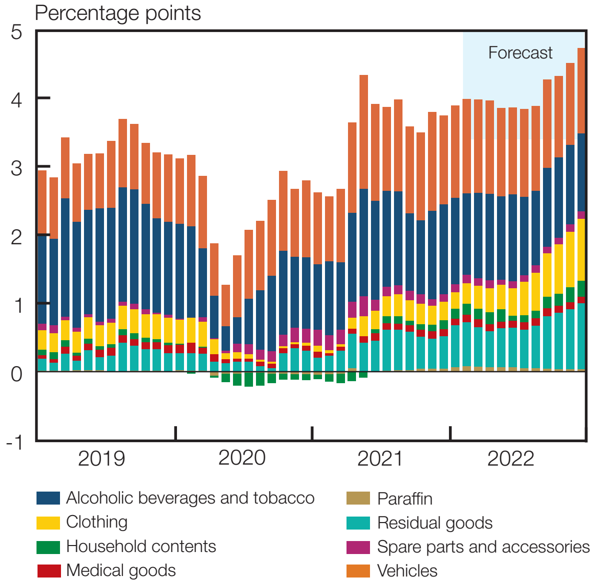
Administered price inflation remains a major driver of headline inflation and a structural obstacle in achieving permanently lower domestic price inflation (see Box 9). Many of the administered price sectors, including water, electricity and fuel, serve as inputs into the production process. Therefore, the considerably higher administered price inflation raises the overall cost structure of the economy.

The Russia–Ukraine war has pushed thermal coal prices to unprecedented levels, with the Richard's Bay variant touching US$456 per ton on 8 March 2022 – a 141% increase since the beginning of February. Higher coal and diesel prices will likely raise Eskom's generation costs and drive additional electricity price increases.

Food and non-alcoholic beverages inflation

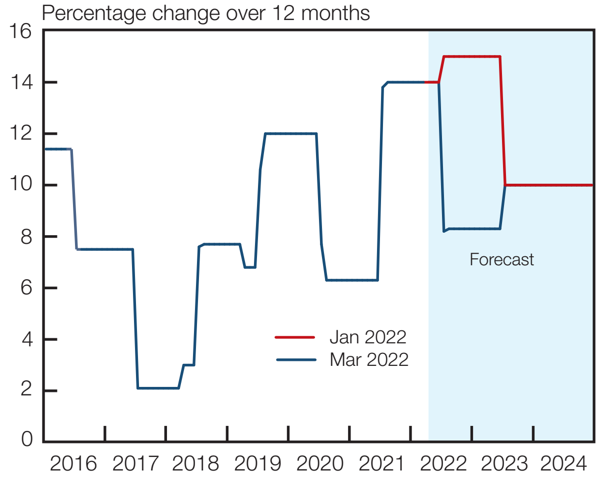
After registering 6.1% in 2021, food and non-alcoholic beverages (NAB) inflation is projected to again average 6.1% in 2022, higher than the 4.2% forecast in the previous *MPR*. This is due to the emergence of heightened food inflation pressures at the beginning of the year, partly as a result of the expected disruptions to the global supply of grains owing to the Russia–Ukraine war. Pressure will be aggravated by the high energy prices, a slightly depreciated rand exchange rate and excessive rains.

Contributions to core goods inflation



Sources: Stats SA and SARB

Electricity prices*



Sources: Stats SA and SARB

58 In February 2022, the National Energy Regulator of South Africa (NERSA) announced a 9.61% increase for municipal bulk purchases. The estimated price increase to households for the period July 2022 to June 2023 stands at 8.3%.

Consumer food price inflation (March 2022 forecasts)

Percentage change over four quarters, September 2021 forecasts in brackets

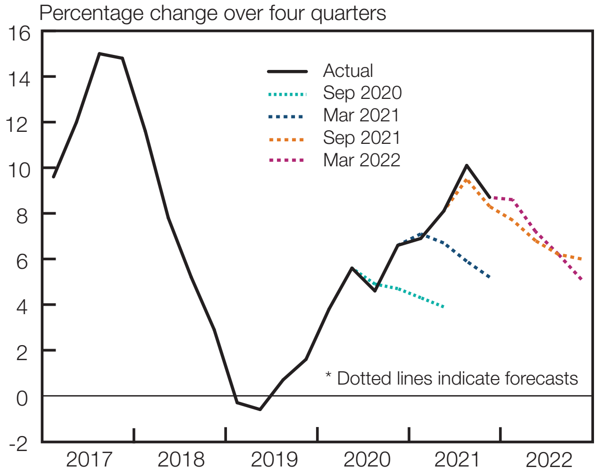
	Actual			Forecast	Actual		Forecast			
	Weight	2011–21*	2021*	2022*	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
Food and non-alcoholic beverages	17.14	6.2	6.1	6.1	6.7	5.7	5.7	6.0	6.3	6.4
				(4.2)	(6.7)	(6.1)	(4.6)	(3.9)		
Bread and cereals	3.16	5.8	3.9	3.1	3.7	2.4	2.1	3.5	3.4	3.3
				(3.7)	(4.2)	(4.2)	(4.1)	(3.9)		
Meat	5.42	6.8	8.5	6.7	10.1	8.7	8.6	7.2	6.2	5.1
				(6.7)	(9.5)	(8.3)	(7.7)	(6.8)		
Beef..................................	1.42	7.5	11.5	7.1	13.3	12.5	7.8	7.0	7.2	6.2
				(10.4)	(12.9)	(8.9)	(8.8)	(8.5)		
Poultry	2.09	6.6	7.4	9.1	4.1	6.1	10.4	9.0	9.3	7.7
				(3.9)	(7.3)	(7.0)	(5.4)	(4.9)		
Vegetables	1.27	5.8	4.1	9.3	4.8	4.3	7.1	8.1	11.3	10.4
				(4.0)	(4.3)	(3.2)	(3.6)	(3.2)		

* Annual average percentage change

Sources: Stats SA and SARB

Meat inflation*

Percentage change over four quarters



Sources: Stats SA and SARB

Slaughtering rates and meat inflation

Percentage change over 12 months

Sources: Levy Admin, Stats SA and SARB

Ordinarily, South Africa's food inflation dynamics are driven largely by domestic factors.[59] The bulk of the upward pressure on food inflation over the past year came from meat inflation, which averaged 8.5%, up from 5.2% in 2020.[60] Price increases within the meat basket have been more pronounced in the beef, poultry and lamb segments. Beef inflation surged to an average of 11.5% in 2021, up from 8.2% in 2020, on account of low slaughtering activity amid herd rebuilding. Poultry inflation increased to 7.4% in 2021, up from 4.4% in 2020, reflecting low base effects in 2020 and high feed costs. Imports exerted downward pressure on poultry inflation, but this is likely to change as South Africa imposed large provisional anti-dumping duties on bone-in chicken meat imports in December 2021, which will remain in effect until 14 June 2022.[61]

Bucking the trend of most food components, bread and cereals inflation decelerated sharply in 2021, reaching 1.8% in December, down from 5.1% in January (3.9% for the year), supported by bumper harvests locally and also in parallel with that seen in global markets. This may reflect the integration of the South African and global markets for grain, with domestic prices oscillating between export parity and import parity, depending on the harvests.

59 Good harvests in 2020 and 2021 partially insulated domestic prices from the sharply higher global food prices, where the United Nations Food and Agriculture Organization (FAO) food price index increased by 28% in 2021.

60 At 32%, meat is heavily weighted in the food and NAB basket.

61 These anti-dumping duties range from 6% to 265.1% for various poultry producers.

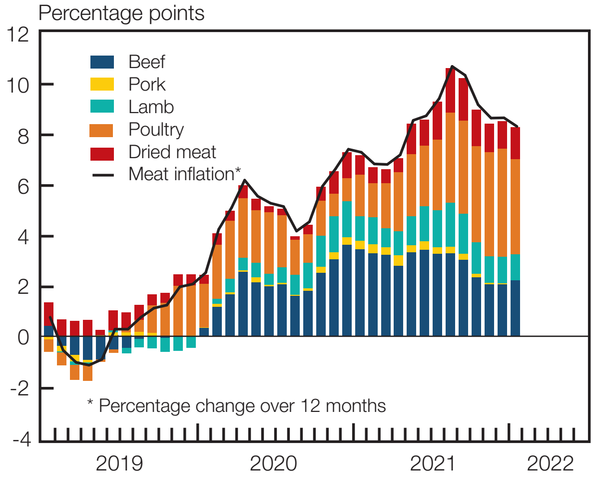
Although grain prices have recently edged higher amid the Russia–Ukraine war, the first domestic crop estimates remain favourable.[62, 63] The global production of grain crops is also projected higher in 2021/22, and this should support lower bread and cereals inflation.[64] Together with the high base effects from the first half of 2021, these factors should partially counter the expected rise in bread and cereals inflation.

The feedthrough from global food inflation to its domestic counterpart appears strongest for the sugar and the oils and fats categories, as South Africa tends to be a net importer. Global sugar prices increased by 37% in 2021 and vegetable oils by 66%, lifting domestic sugar prices by 6.3% and oils and fats prices by 18.6% in 2021. Although the sugar tax of 4.5% announced in the 2022 Budget is expected to raise prices, favourable production conditions in major exporting countries, notably India and Thailand, should support lower sugar prices. The global supply for oils remains tight, and the Russia–Ukraine war may have aggravated the supply situation. Consequently, the domestic oils and fats inflation is expected to remain elevated.

The recent excessive rains associated with La Niña negatively affected the domestic harvests of staple fruits and vegetables, pushing vegetable inflation to 8.6% in January 2022 and 7.7% in February, up from 3.2% in December 2021.[65] The impact of the heavy rains on the cereal crops appears to be minimal, as estimates for 2021/22 are in line with their five-year production average.

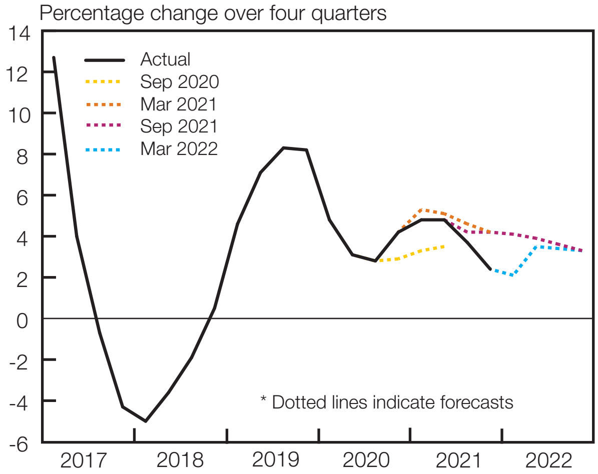
Overall, despite the expected good harvest, the near-term outlook for food and NAB inflation has lifted to 6.1% in 2022, considerably higher than the 4.2% projected in the October 2021 *MPR*. The shift is driven by the Russia–Ukraine war, sharply higher energy prices and a somewhat weaker rand.

Contributions to meat inflation



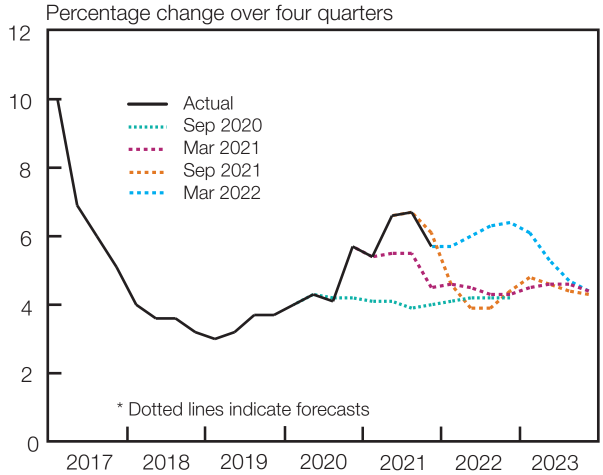
Sources: Stats SA and SARB

Bread and cereals inflation*



Sources: Stats SA and SARB

Food and non-alcoholic beverages inflation*



Sources: Stats SA and SARB

62 The domestic maize crop is estimated at 14.5 million tonnes in the current season, down from 16.3 million tonnes in 2020/21, but in line with the five-year average.

63 Russia and Ukraine are the largest exporters of wheat, maize and sunflower oil, while Russia is also one of the largest exporters of fertiliser material.

64 International Grains Council, *Grain Market Report*, February 2022.

65 Business Insider, 'Heavy rains continue to hit tomato and potato supply, causing a surge in prices', December 2021. https://www.businessinsider.co.za/heavy-rain-hits-tomato-and-potato-supply-and-causes-a-spike-in-prices-2021-12

Headline inflation (March 2022 forecasts)

Percentage change over four quarters, September 2021 forecasts in brackets

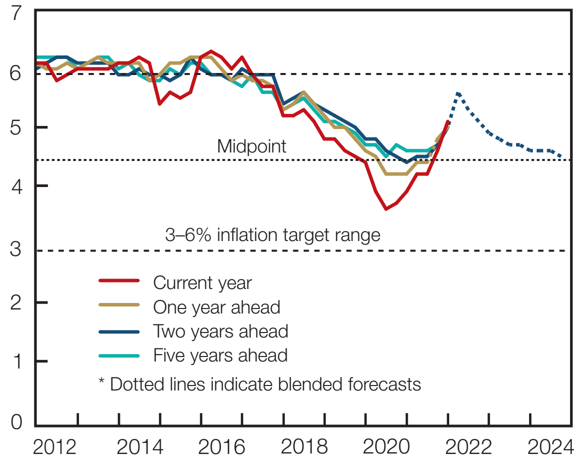
	Actual			Forecast	Actual		Forecast			
	Weight	2011–21*	2021*	2022*	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
Headline inflation	100.00	5.0	4.5	5.8	4.7	5.3	5.8	6.2	5.7	5.4
				(4.2)	(4.8)	(5.0)	(4.7)	(4.3)		
Core inflation**	74.40	5.1	3.1	4.2	3.1	3.3	3.7	4.0	4.3	4.6
				(3.8)	(3.0)	(3.1)	(3.6)	(3.8)		
Rentals***	16.49	3.9	1.0	2.5	1.0	1.4	2.0	2.5	2.6	2.7
				(2.1)	(1.1)	(1.3)	(1.6)	(2.2)		
Insurance	9.89	7.0	4.8	5.8	5.0	5.0	5.5	6.5	5.7	5.6
				(7.2)	(4.7)	(4.6)	(6.7)	(7.8)		
Education....................	2.62	7.4	4.5	4.9	4.1	4.1	4.4	5.0	5.0	5.0
				(4.8)	(4.1)	(4.2)	(4.5)	(4.9)		
Vehicles.......................	5.91	3.5	5.0	4.9	5.0	5.2	5.3	5.1	5.0	4.7
				(4.1)	(4.9)	(4.4)	(4.5)	(4.2)		
Fuel	4.82	7.5	18.1	26.1	18.0	33.4	31.9	40.0	25.0	10.4
				(5.1)	(17.8)	(25.8)	(16.0)	(6.2)		
Electricity.......................	3.63	9.5	10.2	11.0	13.9	14.0	14.0	14.0	8.3	8.3
				(11.8)	(13.8)	(13.8)	(13.8)	(13.8)		

* Annual average percentage change
** CPI excluding food, NAB, fuel and electricity
*** Combines actual rentals and owners' equivalent rent

Sources: Stats SA and SARB

Inflation expectations*

Per cent



Sources: BER and SARB

Medium-term inflation

The medium-term trajectory for headline inflation is shaped by the drivers of core inflation, namely inflation expectations, real unit labour costs (ULCs), the real rand exchange rate and the output gap, with the latter three proxying the real marginal costs facing domestic producers. The output gap captures the extent to which the degree of economic slack affects the costs of producing additional output, the real ULC gap expresses real wage pressures greater than productivity gains, while the real exchange rate reflects costs associated with the use of imported inputs.[66]

Better anchored inflation expectations benefit inflation by guiding price/wage setters. The BER's two-year-ahead surveyed inflation expectations have hovered around the target midpoint for most of the past two years. However, (global) supply chain disruptions and the surge in oil prices have pushed domestic inflation higher. During the period under review, the surveyed two-year-ahead inflation expectations edged higher to 5.0% in the first quarter of 2022, up from 4.7% in the fourth

66 The lag in inflation (i.e. inflation persistence) and the real policy rate are also important determinants of medium-term inflation.

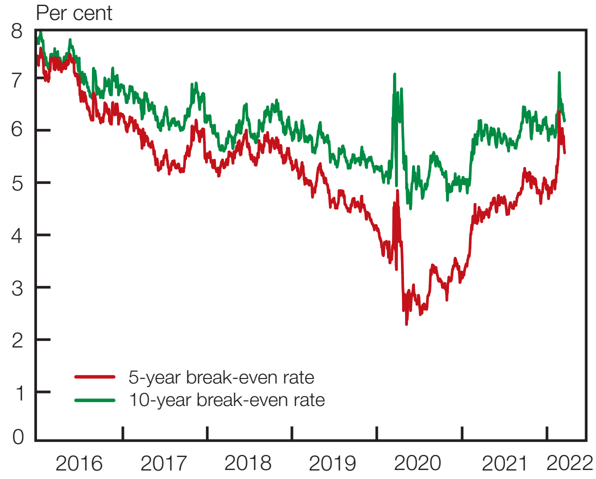
quarter of 2021. Rising inflation expectations are also seen in break-even rates, which have risen sharply. The drift in inflation expectations, if sustained, presents the prospect of more enduring second-round effects, including feedthrough to wage setting.

Numerous studies show that wages in South Africa respond strongly to inflation outcomes but are less responsive to employment conditions.[67] This implies that, during periods of elevated inflation, real wage gains substantially above productivity are common, despite the high unemployment levels. The forecast is for nominal wages to increase by 5.5% in 2022, 6.7% in 2023 and 6.1% in 2024, with the real ULC gap switching from being disinflationary in 2022 to inflationary from 2023 onwards.

Medium-term inflation also responds to the exchange rate. Through the currency conversion effect, a nominal depreciation of the rand directly raises the prices of imported goods in the domestic economy, driving inflation up, while a more appreciated and stable rand helps buffer the effects of imported inflation, exerting downward pressure on headline inflation.[68] The starting point for the rand per US dollar exchange rate at the March MPC meeting was R15.41, and it is projected to depreciate to R16.22 over the forecast period – a 5.2% depreciation.[69] At the same time, the real effective exchange rate (REER) gap is projected to deteriorate over the forecast horizon, raising the real marginal costs of production and adding to inflationary pressures.

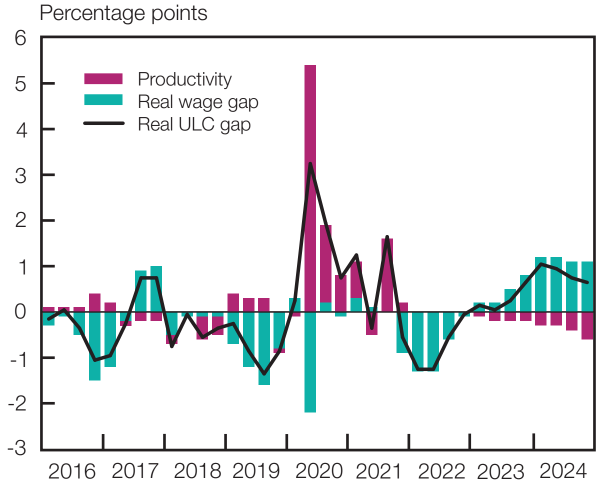
Although it remains negative, the projected output gap continues to narrow, and is expected to close by the third quarter of 2023 before turning positive for the remainder of the forecast period. A negative and narrowing output gap implies diminishing disinflationary pressure, while a positive output gap exerts upward inflationary pressure. The narrowing output gap partly explains the sharp acceleration in core inflation, which edges past the midpoint of the target range by the fourth quarter of 2022 and remains above it over the medium term.

Break-even inflation rates



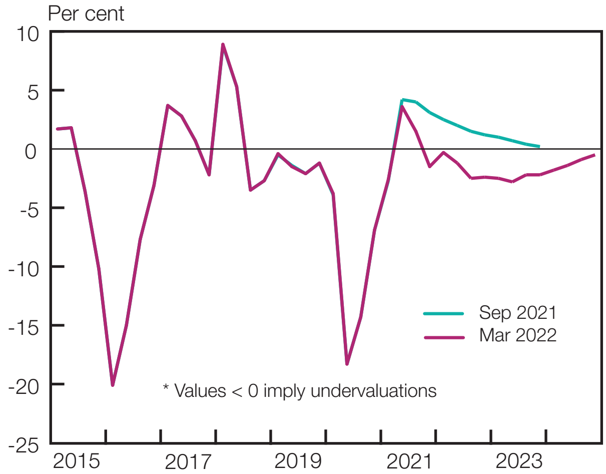
Source: Bloomberg

Contributions to the unit labour cost gap



Source: SARB

Real effective exchange rate gap*



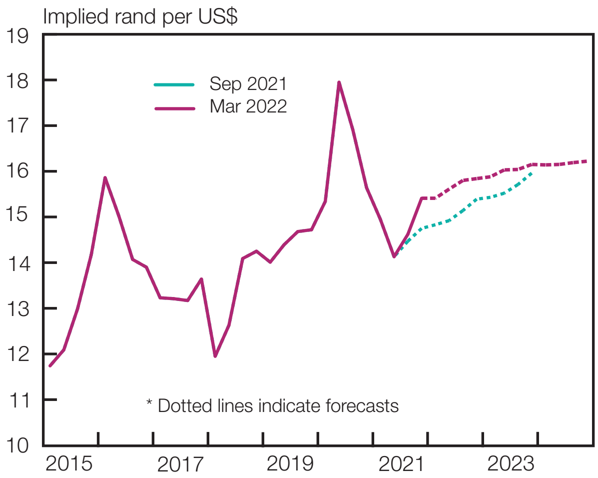
Source: SARB

67 See, for instance, N Viegi and V Dadam, 'Estimating a New Keynesian Wage Phillips Curve', *South African Reserve Bank Working Paper Series No. WP/20/13*, December 2020. https://www.resbank.co.za/en/home/publications/publication-detail-pages/working-papers/2020/working-paper-20-13

68 For complete pass-through goods, such as fuel, the impact is instant, while for manufactured goods, the price impacts may be mediated by market competition.

69 A 1% nominal exchange rate shock in one quarter generates a 0.12 percentage point rise in headline at its peak, typically three quarters after the shock.

Nominal exchange rate



Source: SARB

Conclusion

Headline inflation has risen sharply, underpinned by supply-side factors as well as rising core inflation pressures, and is now expected to average 5.8% for the year. It should return closer to the midpoint of the target in 2023, driven by fuel price base effects and a moderation in oil prices, and hover around the midpoint into 2024. The Russia–Ukraine war has further driven oil prices to unprecedented highs, exerting intense pressure on headline inflation and adding to high administered price inflation. Taking a medium-term perspective, currency weakness, high wage pressures and a closing output gap will further exert upward pressure on headline inflation, even if exogenous price pressures fade quickly.

Box 8 What do high producer prices tell us about CPI inflation?

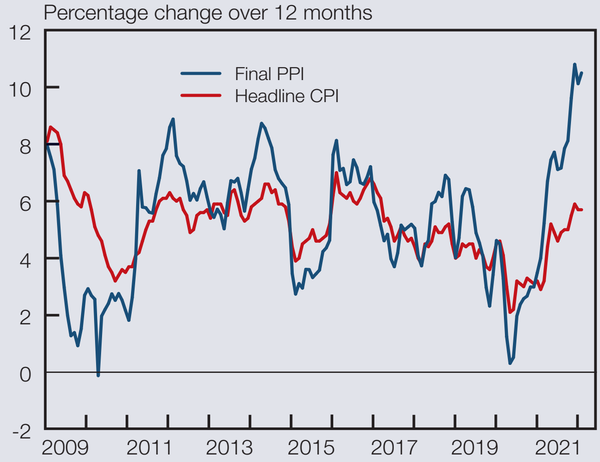
The producer price index (PPI) is a measure of the change in the prices of goods, either as they leave their place of production or as they enter the production process.[1] It is an alternative measure of domestic inflation and important correlate of consumer price index (CPI) inflation. Both CPI and PPI inflation have risen sharply worldwide as economies recover from the COVID-19-induced recession of 2020. In South Africa, final PPI inflation recorded 10.8% in December 2021, moderated to 10.1% in January 2022, and rose to 10.5% in February 2022.[2] CPI inflation also rose sharply, reaching 5.9% in December 2021 before moderating slightly to 5.7% in January and February 2022.

Do producer prices contain useful information about the future trajectory for CPI inflation? A strong co-movement would suggest that the two series (PPI and CPI) are driven by similar fundamentals or that one drives the other. One linkage is the production chain idea that posits that PPI inflation is 'pipeline inflation' and will ultimately be passed on to final consumers, suggesting a stronger correlation.[3] Producer and consumer price inflation often move together, despite considerable structural differences between the indices. PPI typically measures only domestic prices, while the CPI also includes prices of imported consumer goods. Additionally, government taxes and subsidies affect CPI but not PPI, which can be seen in the different way administered prices pass through into the inflation indices. Finally, most PPI measures exclude services – a large share of the CPI.[4] Consequently, pass-through of PPI to CPI is typically much weaker than implied by the production chain view.[5]

In South Africa, producer prices are measured at the intermediate and final goods levels.[6] Compared to headline CPI inflation, goods CPI inflation, which excludes services inflation, shows a stronger correlation with final PPI inflation. Although CPI goods and final PPI baskets are more closely related and hence exhibit stronger co-movement, they differ in that the CPI goods basket has a large import component.

PPI and headline CPI inflation

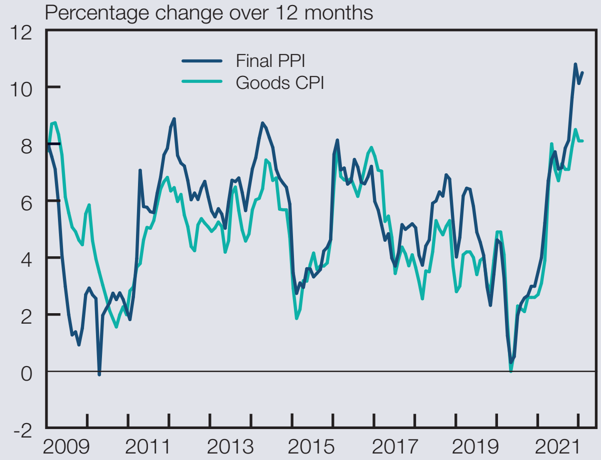
Percentage change over 12 months



Source: Stats SA

PPI and goods CPI inflation

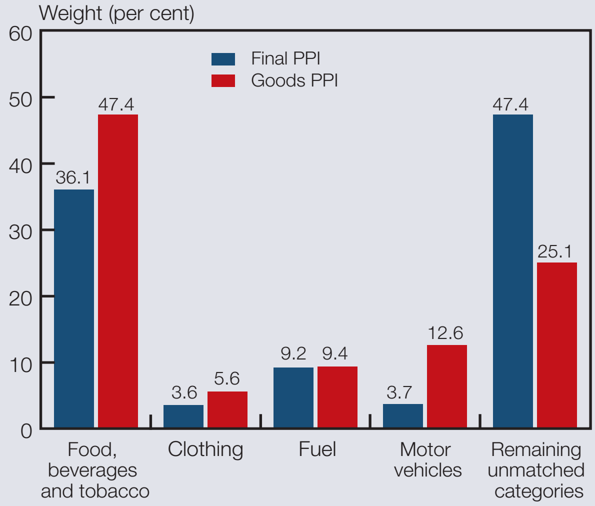
Percentage change over 12 months



Source: Stats SA

Difference in weights of the common components in goods CPI and PPI

Weight (per cent)



Source: Stats SA

1 Organisation for Economic Co-operation and Development, *Methodological Guide for Developing Producer Price Indices for Services,* 2006.

2 Intermediate PPI, which measures the change of input prices at the intermediate production stage, soared to 23.1% in December 2021, before moderating slightly to 21% in January 2022.

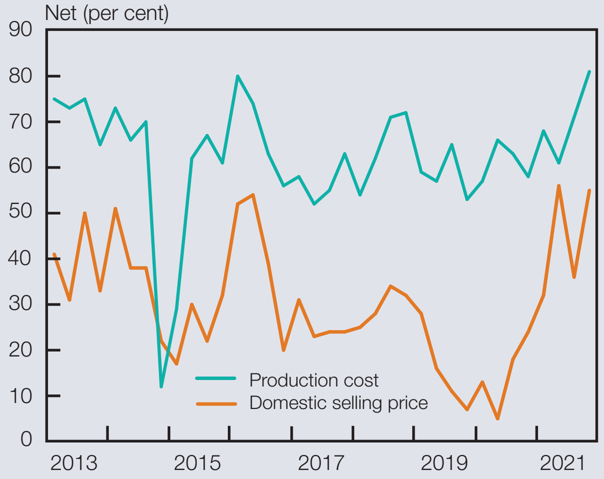
3 R Moreno, 'Some issues in measuring and tracking prices in emerging market economies', *BIS Paper No. 49*, 2010.

4 In South Africa, services constitute about 52% of the CPI basket.

5 See S B Blomberg and E S Harris, 'The commodity-consumer price connection: fact or fable?', *Federal Reserve Bank of New York Economic Policy Review* 1(3), October 1995, pp 21–38; and T E Clark, 'Do producer prices lead consumer prices?', *Federal Reserve Bank of Kansas City Economic Review* 80(QIII), 1995, pp 25-39.

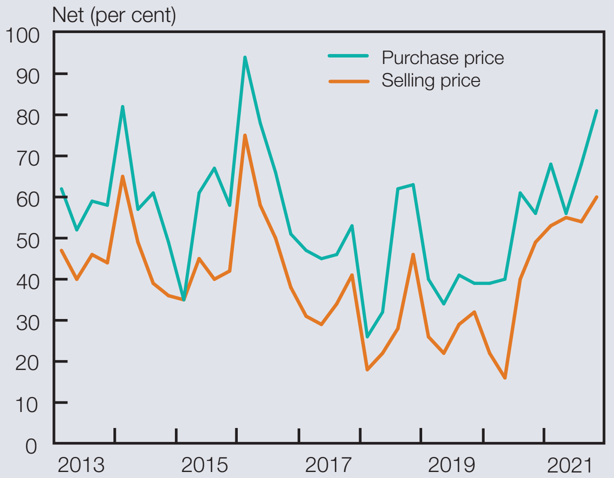
6 For a discussion on the relationship between intermediate and final PPI, see S Knox, P Mnguni, P Pienaar and W Simbanegavi, 'How much should we worry about the high producer prices?', *South African Reserve Bank Research Economic Note*, forthcoming.

Manufacturers



Source: BER

Retailers



Source: BER

Another source of divergence between final PPI and goods CPI is the differences in the weights of the coinciding constituent components. The weights of final PPI are based on the value-added of products in the national accounts, while the weights of CPI are based on household consumption expenditure, which is again influenced by imports.[7]

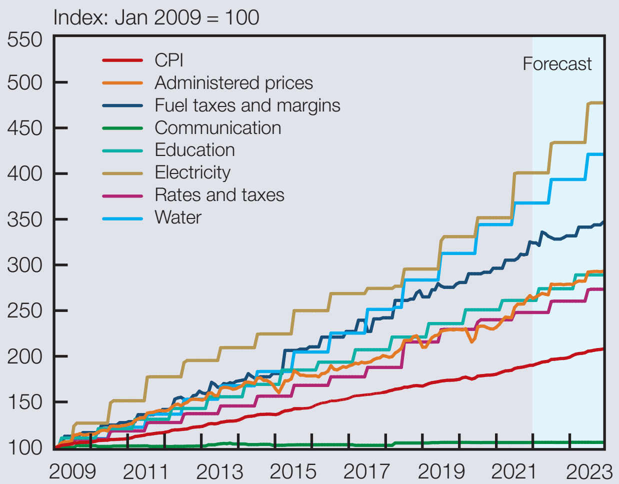
Yet another important determinant of the degree of correlation between PPI and CPI is the extent of market competition. Firms facing stronger competition may choose to absorb rising costs rather than pass the higher costs on to consumers, and this is reflected in survey data showing margin compression in the domestic market. According to the Bureau for Economic Research's (BER) survey of manufacturers, a net majority of 81% of respondents reported that production costs quickened in the fourth quarter of 2021 compared to a year ago, while only 55% reported increased selling prices. This is opposed to the period from the second quarter of 2020 to the second quarter of 2021 where the share of respondents who reported increased selling prices rose sharply relative to those who reported increased production costs. A similar trend is evident at the retailer level.[8] The survey findings correspond closely to measures of realised inflation.

In conclusion, producer prices contain important information about costs that feed into consumer goods, and thus infer some pass-through from PPI to CPI inflation, particularly when considering closely related baskets such as final PPI and goods CPI. However, the pass-through is intermediated by factors such as the degree of competition in consumer goods markets, with firms facing stiffer competition often sacrificing margins rather than fully passing the higher costs on to consumers; the strength of consumer demand; and the structural differences between the final PPI and the targeted headline CPI baskets.

7 See also RMB Markets Research, 'Explaining the divergence between PPI and CPI', *SA Macro Data Review and Preview*, 10 May 2021.

8 See BER, Manufacturing Survey, fourth quarter 2021.

Administered prices



Sources: Central Energy Fund, Stats SA and SARB

Box 9 Administered price inflation in South Africa is well above headline inflation

On average, the past five years has seen South Africa's headline inflation rate at about 4.5%. Global disinflation and a relatively strong rand have supported lower inflation outcomes in the domestic economy. When compared to global peers, however, inflation in South Africa is still too high. Trading-partner peers averaged 2.6% over the same period.

This box shows that administered prices have risen considerably faster than headline inflation since 2009. Higher administered prices help explain South Africa's higher inflation rate relative to trading-partner peers. Looking ahead, South Africa may only achieve lasting low inflation if administered prices are permanently lower.

Between 2009 and 2021 the electricity price rose four-fold and the water price more than trebled, yet consumer price index (CPI) inflation less than doubled. The fuel taxes and margins component of the fuel price also more than trebled from 2009, underpinned by sharp increases in the fuel levy, Road Accident Fund levy and dealer margin.[1]

Overall administered price inflation has moderated somewhat over time, from 9.5% during 2007–2011 to 6.5% during 2012–2016, and then to 6.3% during 2017–2021, in large part because of persistently low communication price inflation – the only component to average below the 4.5% target midpoint across the three sub-periods.

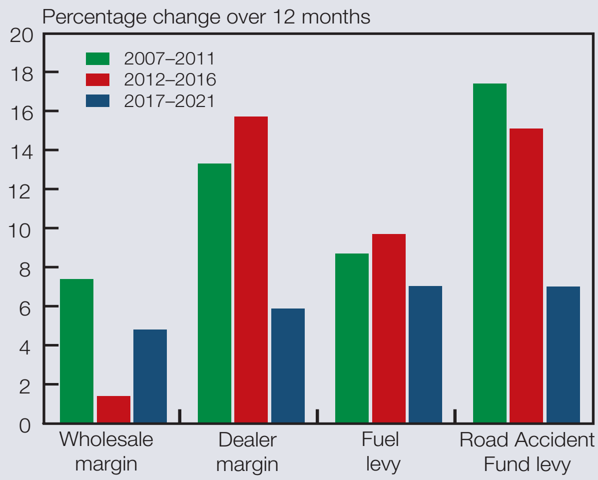
Higher administered prices not only pull headline inflation up, reducing real disposable income, but also directly impose a financial burden on consumers and reduce the resources available to spend on all other goods and services.

A sustained deviation in targeted inflation from the midpoint could dislodge inflation expectations, requiring policy to respond more strongly. Administered goods and services tend to have a low elasticity of demand, implying that the burden of adjustment would be borne by the narrower range of demand-sensitive components of the basket.

A more efficient regulation of administered prices would bring inflation for this category in line with the rest of the economy. Private inflation – a measure that strips out all administered prices from headline CPI inflation – has averaged 4.6% since 2014 and 4.1% during the period 2017–2021. Public inflation, on the other hand, has averaged 5.7% since 2014 and 5.3% during 2017–2021. Improving the regulation of administered prices and lowering their rate of growth to be consistent with the inflation target of 4.5% would bring a range of benefits to the economy as a whole. More cost-effective services would encourage investment in non-administered price sectors, while helping to keep interest rates for all borrowers lower.

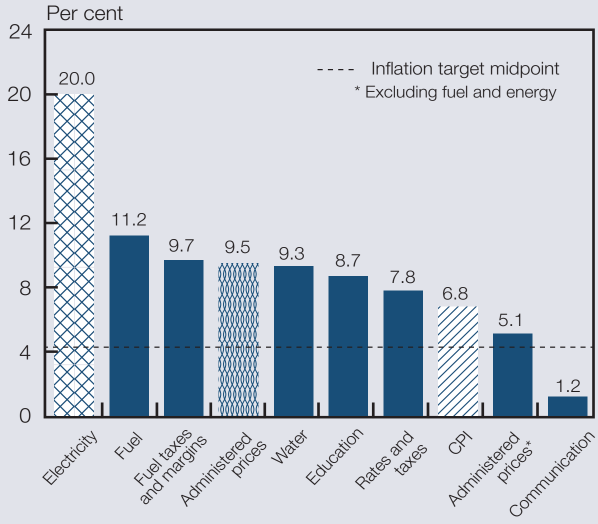
1 While the 'fuel price' is an administered price, a large part of movements in the fuel price is exogenous, driven by the rand exchange rate and global oil prices, hence the focus on 'fuel taxes and margins'.

Large petrol taxes and margins categories



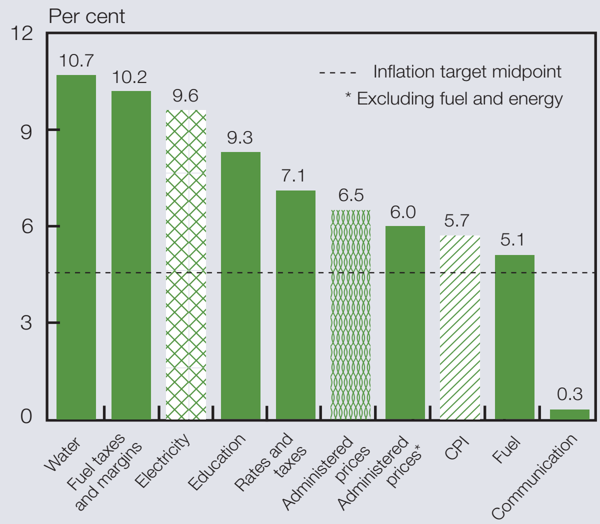
Source: Central Energy Fund

Administered price inflation components: 2007–11



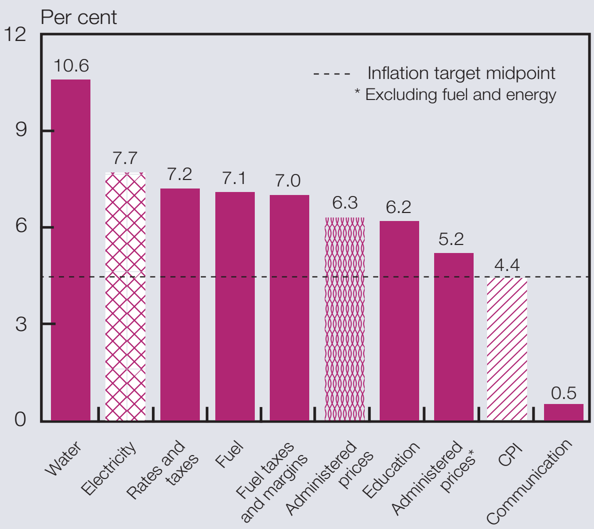
Sources: Central Energy Fund, Stats SA and SARB

Administered price inflation components: 2012–16



Sources: Central Energy Fund, Stats SA and SARB

Administered price inflation components: 2017–21

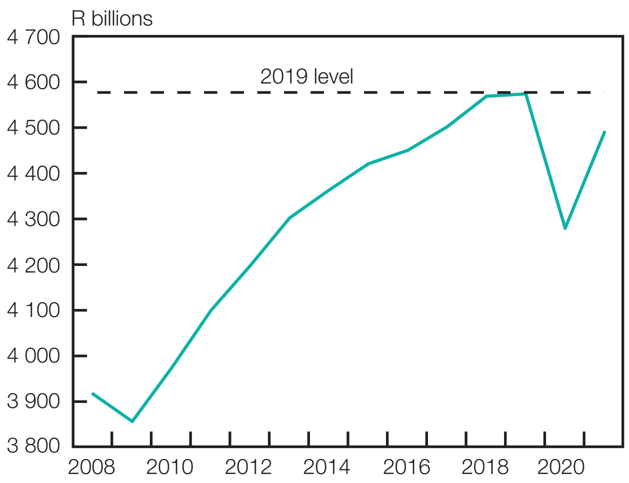


Sources: Central Energy Fund, Stats SA and SARB

Conclusion

Within a period of 18 months, concerns about the global economy have shifted from a 'severe recession' to a 'great inflation' as growth rebounded sharply. This rebound was led by the advanced economies, with emerging market economies recovering at a slower pace. The sharp recovery generated severe price pressures, with realised inflation more than trebling the inflation target in several advanced economies, driven by strong demand, sharply higher oil and food prices, and tighter labour markets. Decisive policy rate hikes during the course of this year are likely as central banks fight to keep inflation expectations anchored. After growing at 6.4% in 2021, the SARB projects global growth to decelerate to 3.7% in 2022, and to moderate further over the medium term.[70]

GDP level



Source: Stats SA

Like its global counterparts, the South African economy has achieved substantial gains, growing at 4.9% in 2021 and recovering to within 2 percentage points of the 2019 output level. The pace of recovery has not been uniform across sectors, however. Agriculture; finance; and community, social and personal services have surpassed their 2019 level of activity, while others, including transport, tourism and construction remain severely depressed. A slower recovery of the more labour-intensive sectors may explain the lacklustre recovery in employment, despite average earnings recovering to near pre-pandemic levels. Real GDP growth over the medium term is projected to average 1.9%, while potential is expected to average 0.9%.

The continued recovery of the domestic economy, however, is threatened by inflation, which has risen markedly after remaining subdued over the past three years. Headline inflation accelerated sharply to 5.9% in December 2021 and is now expected to average 5.8% in 2022, before returning to the target midpoint in 2023.[71] Although pressures have primarily emanated from higher oil and food prices, they have broadened as core inflation has begun to rise in line with the recovery. Core inflation is expected to accelerate as second-round effects and imported inflation manifest. Administered price inflation has remained high relative to the target midpoint, adding pressure to headline inflation. With higher headline inflation, the average surveyed inflation expectations for 2023 have drifted upwards, recording 5.0% during the first quarter of 2022, up from 4.7% in the fourth quarter of 2021, and risking a de-anchoring of expectations from the target. Sharply higher inflation risks are undermining economic growth further.

After keeping the repo rate unchanged at seven consecutive meetings since July 2020, the MPC began normalising the repo rate at the November 2021 meeting with a 25 basis point increase, and two further hikes of the same magnitude at the

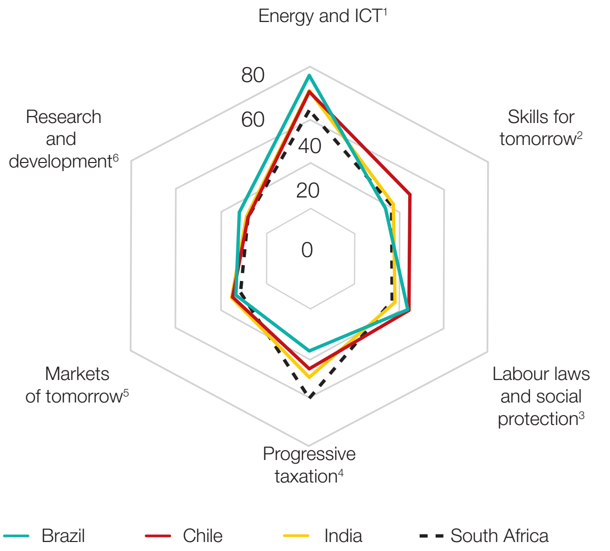
70 The moderation reflects a return to normal trend growth, guided by the unwinding of policy accommodation, persisting supply constraints, ongoing COVID-19 waves, and the effects of the Russia–Ukraine war.

71 This is substantially higher than the October 2021 *MPR* expectation for headline to average 4.2% in 2022.

January and March meetings respectively. The real repo rate has, however, become more accommodative as inflation has risen faster, reaching a low of -1.9% in March 2022. Such a low rate is highly stimulatory, adding to demand pressures and a faster rise in core inflation. The QPM-implied repo projection sees the nominal repo rate rising to 6.75% by the end of 2024, closer to its neutral level. Along the path, policy is currently expected to remain accommodative and supportive of the economic recovery.

Despite a less supportive global economic environment, domestic growth can be enhanced through creating a conducive investment climate. Structural reforms, such as embedded electricity generation being undertaken in the energy sector, can enhance efficiencies in key infrastructure sectors and unlock investment. Stabilising public debt will lower long-term borrowing costs, further supporting investment. At the same time, policy should seek to reduce the impact of administered prices on overall inflation and promote product market competition, allowing the economy to realise permanently lower inflation and lower borrowing costs.

SA versus peers: competitiveness indicators



1 Broaden access to electricity and ICT
2 Update education curricula and invest in skills needed for jobs in markets of tomorrow
3 Rethink labour laws and social protection for the new economy
4 Shift to more progressive taxation for corporations, wealth and labour
5 Facilitate creation of 'markets of tomorrow'
6 Investments in research, innovation and invention

Source: WEF, *The Global Competitiveness Report,* 2020

Statement of the Monetary Policy Committee

18 November 2021

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

Steady advances in vaccination rates have sustained confidence and the global economic recovery this year, even with further waves of the COVID-19 virus expected. Recoveries in emerging market and developing economies will continue to lag those in advanced economies, in large part due to a slower pace of vaccinations. The virus, however, remains one of a series of current risks to South Africa's economic growth outlook that includes rising inflation, weaker commodity export prices, stagnant investment, and the longer-term impact of scarring from the pandemic and the July unrest.

The International Monetary Fund's (IMF) forecast for global gross domestic product (GDP) is 5.9% in 2021, slowing to 4.9% in 2022. The South African Reserve Bank's (SARB) forecast for global growth in 2021 now sits at 6.3% (up from 6.2%), and is unchanged for 2022 and 2023, at 4.4% and 3.3% respectively.[1] GDP growth in our trading partners in 2024 is forecast to be 2.7%. Global economic conditions are now less supportive of emerging and developing economies than in much of this past year.

Although policy settings in advanced economies remain accommodative, considerably higher global inflation and rising uncertainty about the normalisation path for interest rates continue to cause financial market turmoil and capital flow volatility. Risk aversion in financial markets has increased. Economies that failed to take advantage of improved global prospects or to reduce large macroeconomic imbalances remain vulnerable.

While the domestic economy grew strongly in the first half of 2021, the second half of the year is expected to show mixed results. Overall, we forecast the economy to grow by 5.2% this year (from 5.3%), revised down due to the larger negative effect on output than was previously estimated from the July unrest and other factors. Our revised estimate for third-quarter economic growth is -2.5%, compared to the previous -1.2%. For the fourth quarter, we expect a GDP outcome of 2.6%, compared to the previous 1.6%.

Despite these quarterly revisions, the annual growth rate in GDP for 2021 reflects a healthy bounce back from the economic effects of the pandemic. In the next two years, economic growth is expected to align with a low rate of potential growth. GDP is expected to grow by 1.7% in 2022 and by 1.8% in 2023, unchanged from the September forecast. GDP growth in 2024 is forecast to be 2.0%.

The July unrest, the pandemic and ongoing energy supply constraints are likely to have lasting effects on investor confidence and job creation, impeding recovery in labour-intensive sectors hardest hit by the lockdowns. High export prices are expected to fade, perhaps faster than previously expected. Very weak job creation will moderate household consumption. Investment will remain constrained by the high risk of further load-shedding and ongoing uncertainty. The faster vaccine roll-out presents some upside risk to the growth outlook.

Overall, and after revisions, the risks to the medium-term domestic growth outlook are assessed to be to the downside.

Compared to the September meeting, the output gap is broadly unchanged over the forecast period.

The current account surplus remains substantial, but is expected to be significantly smaller than our previous (September) projection, at 3.8% of GDP in 2021 (from 4.6%). Prices for important commodity exports such as rhodium, iron ore, coal and platinum have decreased in recent months, some sharply. Oil prices have increased by about 68% year to date compared to the 2020 average price. Alongside higher prices and stronger demand for imported consumer and investment goods, the commodity and oil price movements imply a smaller trade surplus. Whereas a current account surplus of 0.7% of GDP was forecast for next year (2022), we now expect a current account deficit of 0.6% of GDP.[2]

1 Global growth in the Quarterly Projection Model (QPM) is a trade-weighted average of South Africa's trading partners. The IMF's October 2021 *World Economic Outlook* global forecast for 2022 sits at 4.9%.

2 The current account is expected to be in deficit of -1.8% in 2023 (from -0.3%) and -2.5% in 2024.

Although fiscal risk has eased, financing conditions remain volatile and the yield curve for rand-denominated bonds remains steep. Ten-year bond yields have shown greater sensitivity to global and domestic factors, and sit at about 9.5% at present.

For much of the year, generally favourable global financial and economic conditions and strong commodity export prices strengthened the currency above its long-run equilibrium level. In recent months, increased uncertainty about global inflation and policy settings, with a moderation in the terms of trade, have however contributed to a weaker rand exchange rate. Since the September meeting, the rand has depreciated by about 5.9% against the US dollar and now sits below its equilibrium level. The implied starting point for the rand forecast is R15.1 to the US dollar, compared with R14.47 at the time of the previous meeting.

With ongoing global supply shortages and strong demand, a wide range of prices continues to accelerate, including raw materials, intermediate inputs and food.[3] Some of these price increases have passed through to consumer prices in major economies. Our estimate for inflation in the G3 was revised higher for 2021 to 2.9% (from 2.4%), to 2.4% for 2022 (from 2.0%) and remains unchanged at 1.8% in 2023.[4] For 2024, G3 inflation of 1.6% is forecast.

Oil prices are revised up for this year, and fuel price inflation is higher at 17.6% (up from 16.1%).[5] Local electricity price inflation for 2021 remains at 10.1%, while the forecast for 2022 and 2023 is revised up to 14.4% (from 11.8%). For 2024, electricity price inflation of 10% is expected.

The SARB's forecast reflects higher headline inflation for the fourth quarter, at 5.3% (from 5.0%). For this year and the next two years, headline consumer price inflation is revised slightly higher, to 4.5% for 2021 (from 4.4%), to 4.3% next year (from 4.2%), and to 4.6% in 2023 (from 4.5%). Headline consumer price inflation for 2024 is expected to be 4.5%.

The forecast for core inflation remains at 3.0% in 2021 and is slightly lower at 3.7% in 2022 (from 3.8%). Core inflation is expected to be slightly higher at 4.4% in 2023 (from 4.3%) and to reach 4.5% in 2024. While the economy continues to expand over the forecast period, core inflation remains subdued by low services price inflation, modest unit labour costs and exchange rates.

The risks to the short-term inflation outlook are assessed to the upside. Global producer price and food price inflation continued to surprise higher in recent months and could do so again. Oil prices have increased sharply, with current prices well above our forecasted levels for this year. Electricity prices are higher throughout the forecast and with other administered prices continue to present short- and medium-term risks. Given the moderate medium- and long-term inflation projections set out above, a weaker currency, higher domestic import tariffs and escalating wage demands present additional upside risks to the inflation forecast.

Average surveyed expectations of future inflation remain at 4.2% for 2021 and 4.4% for 2022. Market-based surveyed expectations for inflation for 2021 are broadly unchanged.[6]

While the Monetary Policy Committee (MPC) expects inflation to stay close to the midpoint over the forecast period, inflation risks have increased and the level of policy accommodation remains high.

Against this backdrop, the MPC decided to increase the repurchase (repo) rate by 25 basis points to 3.75% per year, with effect from 19 November 2021. Three members of the Committee preferred an increase and two members preferred an unchanged stance.

The implied policy rate path of the Quarterly Projection Model (QPM) indicates an increase of 25 basis points in the fourth quarter of 2021 and further increases in each quarter of 2022, 2023 and 2024. As usual, the repo rate projection from the QPM remains a broad policy guide, changing from meeting to meeting in response to new data and risks.

Given the expected trajectory for headline inflation and upside risks, the Committee believes a gradual rise in the repo rate will be sufficient to keep inflation expectations well anchored and moderate the future path of interest rates. Economic and financial conditions are expected to remain more volatile for the foreseeable future. In this

3 World food prices continue to rise. The assumption used for the forecast for world food prices increased from 13.4% in September to 25.4% for the November meeting.

4 The G3 comprises the United States, the euro area and Japan.

5 The forecast for fuel prices in 2022 has been revised higher to 4.6%, up from 3.7% at the September meeting. For 2023 and 2024, fuel price inflation is expected to be 1.3% and 1.1% respectively. Our assumptions are now for oil prices to average US$71.5 per barrel in 2021, US$73 per barrel in 2022 and US$68 per barrel in 2023. An average price of US$65 per barrel is expected in 2024.

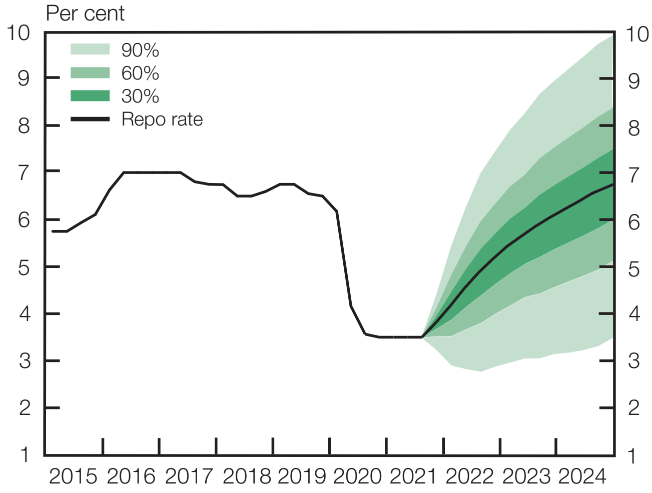
6 The (Q3) Bureau for Economic Research (BER) survey expectations have not been updated and remain at 4.2% for 2021, 4.4% for 2022 and 4.5% for 2023. Market analysts (Reuters Econometer) in November expect inflation to be unchanged at 4.5% in 2021, higher at 4.5% (from 4.4%) in 2022, and unchanged at 4.3% in 2023. Market-based rates are calculated from the break-even inflation rate, which is the yield differential between conventional and inflation-linked bonds. These now sit at 5.08% for the 5-year (up by 25 basis points since the last meeting) and 6.25% for the 10-year break-even, while 15-year break-even inflation sits at 6.54%.

uncertain environment, policy decisions will continue to be data-dependent and sensitive to the balance of risks to the outlook. The MPC will seek to look through temporary price shocks and focus on second-round effects.

Current repo rate levels reflect an accommodative policy stance through the forecast period, keeping financial conditions supportive of credit demand as the economy continues to recover.[7] The SARB has ensured adequate liquidity in domestic markets and will continue to closely monitor funding markets for stress. In addition, regulatory relief provided to banks continues to support lending to households and firms.

Better anchored expectations of future inflation should keep interest rates lower for longer and can be realised by achieving a prudent public debt level, increasing the supply of energy, moderating administered price inflation and keeping wage growth in line with productivity gains. Such steps will enhance the effectiveness of monetary policy and its transmission to the broader economy.

Repurchase rate forecast (November 2021)



The uncertainty bands for the repo rate are based on historical forecasting experience and stochastic simulations in the QPM. The bands are symmetric and do not reflect any assessment of upside or downside risk.

Source: SARB

7 This implies a rise in the inflation-adjusted repo rate from -1.1% for 2021, 0.5% for 2022, 1.3% for 2023, and 2.0% in 2024. The real repo rate calculation here is based on the one-quarter-ahead inflation forecast.

Summary of assumptions: Monetary Policy Committee meeting on 18 November 2021*

1. Foreign sector assumptions

	Actual		Forecast			
	2019	2020	2021	2022	2023	2024
1. Real GDP growth in South Africa's major trading-partner countries	2.2%	-2.8%	6.3%	4.4%	3.3%	2.7%
	(2.2%)	(-2.9%)	(6.2%)	(4.4%)	(3.4%)	
2. Output gap in South Africa's major trading-partner countries (ratio to potential GDP)	0.6%	-3.1%	-1.5%	0.3%	1.3%	0.8%
	(0.6%)	(-3.1%)	(-1.4%)	(0.4%)	(1.5%)	
3. Change in international commodity prices in US$ (excluding oil)	-1.2%	25.5%	45.6%	-20.2%	-2.2%	1.5%
	(-1.2%)	(25.5%)	(48.3%)	(-20.1%)	(-2.7%)	
4. Brent crude (US$/barrel)	64.4	41.8	71.5	73.0	68.0	65.0
	(64.4)	(41.8)	(69.0)	(67.0)	(65.0)	
5. Change in world food prices (US$)	-0.8%	3.1%	25.4%	-4.6%	1.6%	1.2%
	(-0.8%)	(3.1%)	(13.4%)	(-3.1%)	(1.5%)	
6. Change in international consumer prices	1.4%	0.7%	2.9%	2.4%	1.8%	1.6%
	(1.4%)	(0.7%)	(2.4%)	(2.0%)	(1.8%)	
7. International policy interest rate	1.1%	0.2%	0.1%	0.1%	0.6%	1.1%
	(1.1%)	(0.2%)	(0.0%)	(0.0%)	(0.1%)	

2. Domestic sector assumptions

	Actual		Forecast			
	2019	2020	2021	2022	2023	2024
1. Change in electricity price	9.6%	9.1%	10.2%	14.5%	12.3%	10.0%
	(9.6%)	(9.1%)	(10.1%)	(11.8%)	(10.0%)	
2. Change in fuel taxes and levies	5.8%	5.7%	5.7%	4.8%	4.7%	4.5%
	(5.8%)	(5.7%)	(5.8%)	(5.7%)	(4.7%)	
3. Potential growth	0.3%	-3.1%	3.4%	0.8%	0.8%	1.1%
	(0.3%)	(-3.1%)	(3.4%)	(0.8%)	(0.8%)	
4. Inflation target midpoint	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	(4.5%)	(4.5%)	(4.5%)	(4.5%)	(4.5%)	(4.5%)
5. Neutral real interest rate	2.1%	2.0%	2.1%	2.3%	2.3%	2.4%
	(2.1%)	(2.0%)	(2.1%)	(2.3%)	(2.3%)	

Notes

1. Shaded areas indicate forecast assumptions.
2. 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 61 and 62.

Summary of selected forecast results: Monetary Policy Committee meeting on 18 November 2021

Selected forecast results (quarterly)

Year-on-year percentage change

	2021 4.5 (4.4)				2022 4.3 (4.2)				2023 4.6 (4.5)				2024 4.5			
1. Headline inflation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	3.1	4.8	4.8	5.3	4.6	4.3	4.1	4.0	4.5	4.6	4.6	4.5	4.5	4.6	4.5	4.5
	(3.1)	(4.8)	(4.8)	(5.0)	(4.7)	(4.3)	(3.8)	(4.1)	(4.4)	(4.4)	(4.5)	(4.5)				
	2021 3.0 (3.0)				2022 3.7 (3.8)				2023 4.4 (4.3)				2024 4.5			
2. Core inflation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2.8	3.1	3.1	3.2	3.5	3.7	3.8	3.9	4.2	4.3	4.5	4.5	4.5	4.5	4.5	4.4
	(2.8)	(3.1)	(3.0)	(3.1)	(3.6)	(3.8)	(3.8)	(4.1)	(4.2)	(4.2)	(4.3)	(4.4)				

Notes

1. Shaded areas indicate the forecasts of the Monetary Policy Committee.
2. The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Selected forecast results (annual)

	Actual		Forecast			
	2019	2020	2021	2022	2023	2024
1. GDP growth	0.1%	-6.4%	5.2%	1.7%	1.8%	2.0%
	(0.1%)	(-6.4%)	(5.3%)	(1.7%)	(1.8%)	
2. Output gap (ratio to potential GDP)	-0.3%	-4.0%	-2.1%	-1.3%	-0.3%	0.6%
	(-0.3%)	(-4.0%)	(-2.0%)	(-1.2%)	(-0.2%)	
3. Change in nominal effective exchange rate	-7.0%	-12.8%	10.3%	-3.2%	-4.2%	-1.6%
	(-7.0%)	(-12.8%)	(11.4%)	(-2.6%)	(-3.7%)	
4. Change in real effective exchange rate	-4.5%	-10.6%	12.0%	-1.5%	-1.6%	1.2%
	(-4.5%)	(-10.6%)	(13.5%)	(-0.5%)	(-1.2%)	
5. Real exchange rate gap	-1.3%	-10.8%	0.9%	-0.6%	-2.2%	-1.0%
	(-1.3%)	(-10.8%)	(2.1%)	(1.8%)	(0.5%)	
6. Repurchase rate (end of period)	6.50%	3.50%	3.82%	5.17%	6.04%	6.75%
	(6.50%)	(3.50%)	(3.82%)	(5.17%)	(6.36%)	
7. Current account balance (ratio to GDP)	-2.6%	2.0%	3.8%	-0.6%	-1.8%	-2.5%
	(-2.6%)	(2.0%)	(4.6%)	(0.7%)	(-0.3%)	

Notes

1. The nominal effective exchange rate (NEER) is based on the bilateral exchange rates of South Africa's three largest trading partners (the euro area, the US and Japan). The bilateral exchange rates are weighted by export trade weights.
2. The real effective exchange rate (REER) is the NEER deflated by the consumer price differential (between South Africa and the trade-weighted CPI of the euro area, the US and Japan).
3. The real exchange rate gap signifies the extent to which the real exchange rate deviates from its estimated equilibrium level. A positive gap shows an overvaluation of the currency, and vice versa.
4. The forecast of the current account balance is obtained from the SARB's Core Macroeconometric Model.
5. Shaded areas indicate the forecasts of the Monetary Policy Committee.
6. The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Statement of the Monetary Policy Committee

27 January 2022

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

Over the past year, rising vaccination rates have sustained confidence and the global economic recovery, despite the rapid spread of the Omicron virus. Looking ahead to this year, global growth will be slower as the rebound from the pandemic fades. Growth in emerging market and developing economies will continue to lag that in advanced economies due to a slower pace of vaccinations and other headwinds. South Africa's economy rebounded strongly from the pandemic in 2021, but going forward the growth rate will, like global growth, slow and remain subject to various risks.

The International Monetary Fund's (IMF) forecast for global gross domestic product (GDP) is unchanged at 5.9% in 2021. Global growth is expected to slow to 4.4% in 2022 (down from 4.9%). The South African Reserve Bank's (SARB) forecast for global growth in 2021 sits at 6.2% (down from 6.3%), and is unchanged for 2022 and 2023, at 4.4% and 3.3% respectively.[1] GDP growth in our trading partners in 2024 is forecast to be 2.7%. Global economic conditions are less supportive of emerging and developing economies now than they were for most of this past year.

Although policy settings in advanced economies remain accommodative, higher global inflation is likely to accelerate the normalisation of interest rates and balance sheet reductions by major central banks. It is less certain how far the normalisation process will go and the exact timing, and this uncertainty continues to cause financial market turmoil and capital flow volatility. Risk aversion in financial markets has increased. Economies that failed to take advantage of better global conditions or to reduce large macroeconomic imbalances remain vulnerable.

Last year saw the ongoing recovery of the South African economy from the pandemic, but also the damage caused by the July unrest, cyberattacks and strikes. Those factors led to a downward revision to the growth forecast for the year as a whole, from the 5.2% forecast in November to 4.8%.[2]

This year and next, economic growth will remain well above a low rate of potential growth.[3] GDP is expected to grow by 1.7% in 2022. The deceleration in growth from 2021 to 2022 is primarily a result of the fading rebound from the pandemic, alongside a climbdown from high export prices. GDP growth is forecast to be 1.8% in 2023 and 2.0% in 2024.[4]

With lower export prices, the economy's future demand will depend more on investment and household spending. Sustained low borrowing costs and faster economic growth have strengthened private sector investment somewhat, despite ongoing constraints from load-shedding and policy uncertainty. Household spending remains supportive as a result of good growth in disposable income, rising asset prices and more credit demand.

Overall, and after revisions, the risks to the medium-term domestic growth outlook are assessed to be balanced.

With the downward revision to GDP growth for 2021, the output gap is more negative over the forecast period compared to the November meeting. However, as the economy is forecast to grow faster than potential, the output gap closes steadily through to 2024.

While important commodity export prices such as for coal, iron ore, platinum and rhodium generally decreased in the latter half of 2021, in recent weeks some prices and export values have been more buoyant. As a result, the current account surplus of the past year is expected to decline at a slower pace than at the time of the November meeting.[5] The current account deficit in 2023 and 2024 is, at this stage, forecast to be smaller than previously expected.

Although fiscal risk has eased, financing conditions remain volatile and the yield curve for rand-denominated bonds remains steep. Ten-year bond yields remain at about 9.4%.

1 Global growth in the Quarterly Projection Model (QPM) is a trade-weighted average of South Africa's trading partners.

2 In the third quarter of 2021, economic growth was -5.8%, compared to our previous estimate of -2.5%. For the fourth quarter, we expect a GDP outcome of 5.5%, compared to the previous 2.6%. On a not-annualised basis, the quarter-on-quarter growth rate for the third quarter was -1.5%, compared to our estimate of -0.6%. The fourth quarter is expected to be 1.4%, compared to 0.6%.

3 Potential growth for 2022 and 2023 is estimated at 0.8%, rising to 1.1% in 2024.

4 The growth forecast includes expected changes in the policy rate.

5 The current account surplus is expected to decline in 2022 to about 0.4% of GDP (from 3.8% of GDP in 2021). The current account is expected to be in deficit of -0.2% in 2023 (from -1.8%) and -0.6% in 2024 (from -2.5%).

For much of 2021, strong commodity export prices and generally favourable global financial and economic conditions strengthened the currency above its long-run equilibrium level. In recent months, global and domestic factors contributed to a weaker rand exchange rate and the rand now sits somewhat below its equilibrium level. The implied starting point for the rand forecast is R15.60 to the US dollar, compared with R15.10 at the time of the previous meeting.[6]

Over the past year and into this year, global supply shortages and strong demand have caused a wide range of prices to accelerate, including raw materials, intermediate inputs and food.[7] Some of these price increases have passed through to consumer prices in major economies. Our estimate for inflation in the G3 was revised higher to 3.1% in 2021 and 2022 (up from 2.9% and 2.4% respectively), and is revised slightly lower to 1.7% in 2023.[8] For 2024, G3 inflation of 1.6% is forecast, unchanged from the previous meeting.

Oil prices are revised up for this year, and fuel price inflation is higher at 13.7% (up from 4.6%).[9] Local electricity price inflation for 2021 was 10.2%, while the forecast for 2022 is revised up to 14.5% (from 14.4%) and remains at 12.4% in 2023. For 2024, electricity price inflation of 10% is expected, unchanged from the previous meeting.

Headline inflation in 2021 came out at 4.5%. The SARB's forecast of headline inflation for this year is revised higher to 4.9% (from 4.3%). Headline inflation is expected to be 4.5% in 2023 and in 2024.

Core inflation was 3.1% in 2021 and is forecast to rise to 3.8% in 2022 (up from 3.7%). With the economy expanding faster than potential over the forecast period, core inflation is projected to rise to 4.5%, despite a still low rate of services price inflation and unit labour costs. Core inflation forecasts for 2023 and 2024 are unchanged at 4.4% and 4.5% respectively.

The risks to the inflation outlook are assessed to the upside. Global producer price and food price inflation continued to surprise higher in recent months and could do so again. Oil prices increased strongly through 2021 and are up sharply year to date. Current oil prices sit well above forecasted levels for this year. Electricity and other administered prices continue to present short- and medium-term risks. Given the moderate medium- and long-term inflation projections set out above, higher domestic import tariffs, stronger services inflation and higher wage demands present additional upside risks to the inflation forecast.

A particular risk arises from the possibility of a faster normalisation of global policy rates than is currently built into the forecast, which assumes some rate hikes to begin around June 2022. Added to this is the risk that quantitative tightening will occur more quickly than previously expected, leading to stronger capital flow reversals from riskier assets such as emerging market debt.

Average surveyed expectations of future inflation have increased to 4.8% for 2022 (from 4.4%). Market-based surveyed expectations for inflation have also increased to 4.8%.[10]

In the near term, headline inflation increases well above the midpoint of the inflation target band and returns close to the midpoint in the fourth quarter of 2022. Some risks to the inflation outlook, like food and fuel, have been realised, and other risks, such as currency volatility and capital flow reversals, have become more pronounced.

Against this backdrop, the Monetary Policy Committee (MPC) decided to increase the repurchase (repo) rate by 25 basis points to 4% per year, with effect from 28 January 2022. Four members of the Committee preferred an increase and one member preferred an unchanged stance.

The implied policy rate path of the Quarterly Projection Model (QPM) indicates gradual normalisation in the first quarter of 2022, and into 2023 and 2024, given the inflation forecast. As usual, the repo rate projection from the QPM remains a broad policy guide, changing from meeting to meeting in response to new data and risks.

Given the expected trajectory for headline inflation and upside risks, the Committee believes a gradual rise in the repo rate will be sufficient to keep inflation expectations well anchored and moderate the future path of interest rates. However, economic and financial conditions are expected to remain more volatile for the foreseeable future. In this uncertain environment, policy decisions will continue to be data-dependent and sensitive to the balance of risks to the outlook. The MPC will seek to look through temporary price shocks and focus on potential second-round effects.

6 The rand has appreciated by about 1.5% to the US dollar since the November meeting.

7 World food prices continue to rise. The assumption used for the forecast for US dollar-denominated world food prices increased from 13.4% in September to 25.4% for November and to 28% for the January meeting.

8 The G3 comprises the United States, the euro area and Japan. The latest CPI inflation in the respective components sits at 7%, 5% and 0.6% respectively.

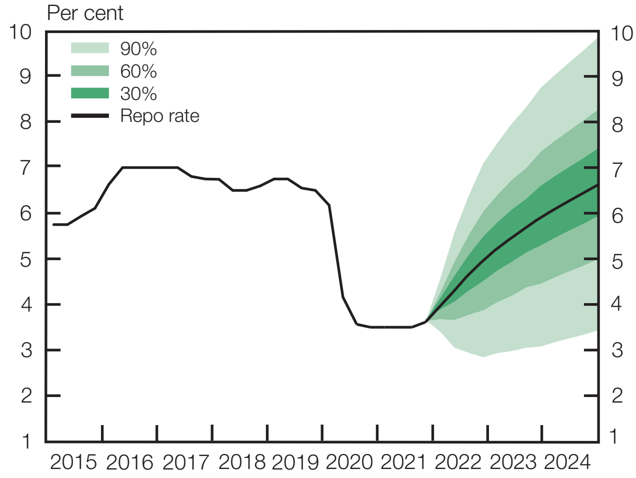
9 For 2023 and 2024, petrol price inflation is expected to be -0.1% and 1.7% respectively. Our assumptions are now for oil prices to average US$78 per barrel in 2022 and US$72 per barrel in 2023. An average price of US$70 per barrel is expected in 2024.

10 The (Q4) Bureau for Economic Research (BER) survey expectations rose above the target midpoint to 4.8% (4.4%) for 2022 and 4.7% (4.5%) for 2023. Market analysts (Reuters Econometer) in January expect inflation to be higher at 4.8% (4.5%) in 2022, 4.5% (4.3%) in 2023 and 4.4% in 2024. Market-based rates are calculated from the break-even inflation rate, which is the yield differential between conventional and inflation-linked bonds. These now sit at 4.8% for the 5-year and 5.93% for the 10-year break-even, while 15-year break-even inflation sits at 6.4%.

Current repo rate levels reflect an accommodative policy stance through the forecast period, keeping financial conditions supportive of credit demand as the economy continues to recover.[11] The SARB has ensured adequate liquidity in domestic markets and will continue to closely monitor funding markets for stress. In addition, regulatory relief provided to banks continues to support lending to households and firms.

Better anchored expectations of future inflation should keep interest rates lower for longer and can be realised by achieving a prudent public debt level, increasing the supply of energy, moderating administered price inflation and keeping wage growth in line with productivity gains. Such steps will enhance the effectiveness of monetary policy and its transmission to the broader economy.

Repurchase rate forecast (January 2022)



The uncertainty bands for the repo rate are based on historical forecasting experience and stochastic simulations in the QPM. The bands are symmetric and do not reflect any assessment of upside or downside risk.

Source: SARB

11 This implies a rise in the inflation-adjusted repo rate from -1.4% for 2021 to 0.0% for 2022, 1.0% for 2023, and 1.8% in 2024. The real repo rate calculation here is based on the one-quarter-ahead inflation forecast.

Summary of assumptions: Monetary Policy Committee meeting on 27 January 2022*

1. Foreign sector assumptions

	Actual		Forecast			
	2019	2020	2021	2022	2023	2024
1. Real GDP growth in South Africa's major trading-partner countries	2.2%	-2.7%	6.2%	4.4%	3.3%	2.7%
	(2.2%)	(-2.8%)	(6.3%)	(4.4%)	(3.3%)	(2.7%)
2. Output gap in South Africa's major trading-partner countries (ratio to potential GDP)	0.6%	-3.1%	-1.5%	0.4%	1.5%	1.0%
	(0.6%)	(-3.1%)	(-1.5%)	(0.3%)	(1.3%)	(0.8%)
3. Change in international commodity prices in US$ (excluding oil)	-1.2%	25.5%	45.6%	-22.3%	-3.5%	0.6%
	(-1.2%)	(25.5%)	(45.6%)	(-20.2%)	(-2.2%)	(1.5%)
4. Brent crude (US$/barrel)	64.4	41.8	70.7	78.0	72.0	70.0
	(64.4)	(41.8)	(71.5)	(73.0)	(68.0)	(65.0)
5. Change in world food prices (US$)	-0.8%	3.1%	28.0%	-2.3%	0.7%	1.2%
	(-0.8%)	(3.1%)	(25.4%)	(-4.6%)	(1.6%)	(1.2%)
6. Change in international consumer prices	1.4%	0.7%	3.1%	3.1%	1.7%	1.6%
	(1.4%)	(0.7%)	(2.9%)	(2.4%)	(1.8%)	(1.6%)
7. International policy interest rate	1.1%	0.2%	0.1%	0.1%	0.6%	1.1%
	(1.1%)	(0.2%)	(0.1%)	(0.1%)	(0.6%)	(1.1%)

2. Domestic sector assumptions

	Actual		Forecast			
	2019	2020	2021	2022	2023	2024
1. Change in electricity price	9.6%	9.1%	10.2%	14.5%	12.3%	10.0%
	(9.6%)	(9.1%)	(10.2%)	(14.5%)	(12.3%)	(10.0%)
2. Change in fuel taxes and levies	5.8%	5.7%	6.1%	7.4%	3.4%	4.4%
	(5.8%)	(5.7%)	(5.7%)	(4.8%)	(4.7%)	(4.5%)
3. Potential growth	0.3%	-3.1%	3.4%	0.8%	0.8%	1.1%
	(0.3%)	(-3.1%)	(3.4%)	(0.8%)	(0.8%)	(1.1%)
4. Inflation target midpoint	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	(4.5%)	(4.5%)	(4.5%)	(4.5%)	(4.5%)	(4.5%)
5. Neutral real interest rate	2.1%	2.0%	2.1%	2.3%	2.3%	2.4%
	(2.1%)	(2.0%)	(2.1%)	(2.3%)	(2.3%)	(2.4%)

Notes

1. Shaded areas indicate forecast assumptions.
2. 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 61 and 62.

Summary of selected forecast results: Monetary Policy Committee meeting on 27 January 2022

Selected forecast results (quarterly)

Year-on-year percentage change

	2021				2022				2023				2024			
	4.5 (4.5)				4.9 (4.3)				4.5 (4.6)				4.5 (4.5)			
1. Headline inflation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	3.1	4.8	4.8	5.5	5.6	5.0	4.7	4.3	4.1	4.5	4.5	4.6	4.6	4.6	4.5	4.5
	(3.1)	(4.8)	(4.8)	(5.3)	(4.6)	(4.3)	(4.1)	(4.0)	(4.5)	(4.6)	(4.6)	(4.5)	(4.5)	(4.6)	(4.5)	(4.5)
	2021				2022				2023				2024			
	3.1 (3.0)				3.8 (3.7)				4.4 (4.4)				4.5 (4.5)			
2. Core inflation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2.8	3.1	3.1	3.3	3.7	3.8	3.8	4.0	4.1	4.3	4.5	4.5	4.5	4.5	4.4	4.4
	(2.8)	(3.1)	(3.1)	(3.2)	(3.5)	(3.7)	(3.8)	(3.9)	(4.2)	(4.3)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.4)

Notes

1. Shaded areas indicate the forecasts of the Monetary Policy Committee.
2. The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Selected forecast results (annual)

	Actual		Forecast			
	2019	2020	2021	2022	2023	2024
1. GDP growth	0.1%	-6.4%	4.8%	1.7%	1.8%	2.0%
	(0.1%)	(-6.4%)	(5.2%)	(1.7%)	(1.8%)	(2.0%)
2. Output gap (ratio to potential GDP)	-0.3%	-4.0%	-2.6%	-1.7%	-0.7%	0.1%
	(-0.3%)	(-4.0%)	(-2.1%)	(-1.3%)	(-0.3%)	(0.6%)
3. Change in nominal effective exchange rate	-7.0%	-12.8%	10.5%	-4.0%	-3.9%	-1.4%
	(-7.0%)	(-12.8%)	(10.3%)	(-3.2%)	(-4.2%)	(-1.6%)
4. Change in real effective exchange rate	-4.5%	-10.6%	12.0%	-2.5%	-1.3%	1.4%
	(-4.5%)	(-10.6%)	(12.0%)	(-1.5%)	(-1.6%)	(1.2%)
5. Real exchange rate gap	-1.3%	-10.8%	0.8%	-1.5%	-2.8%	-1.4%
	(-1.3%)	(-10.8%)	(0.9%)	(-0.6%)	(-2.2%)	(-1.0%)
6. Repurchase rate (end of period)	6.50%	3.50%	3.61%	4.91%	5.84%	6.55%
	(6.50%)	(3.50%)	(3.82%)	(5.17%)	(6.04%)	(6.75%)
7. Current account balance (ratio to GDP)	-2.6%	2.0%	3.8%	0.4%	-0.2%	-0.6%
	(-2.6%)	(2.0%)	(3.8%)	(-0.6%)	(-1.8%)	(-2.5%)

Notes

1. The nominal effective exchange rate (NEER) is based on the bilateral exchange rates of South Africa's three largest trading partners (the euro area, the US and Japan). The bilateral exchange rates are weighted by export trade weights.
2. The real effective exchange rate (REER) is the NEER deflated by the consumer price differential (between South Africa and the trade-weighted CPI of the euro area, the US and Japan).
3. The real exchange rate gap signifies the extent to which the real exchange rate deviates from its estimated equilibrium level. A positive gap shows an overvaluation of the currency, and vice versa.
4. The forecast of the current account balance is obtained from the SARB's Core Macroeconometric Model.
5. Shaded areas indicate the forecasts of the Monetary Policy Committee.
6. The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Statement of the Monetary Policy Committee

24 March 2022

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

Since January, the Omicron wave of the COVID-19 virus has transmitted globally, with diverse social and economic outcomes. Despite the high infection rate, many economies remained open and, with some exceptions, the economic costs of the virus continue to fall. Even as the economic impact of the pandemic fades, the outbreak of war in February between Russia and Ukraine is expected to reduce global economic growth and contribute to higher inflation. The war will likely impair production of a wide range of energy, food and other commodities, and further disrupt global trade.

The South African Reserve Bank's (SARB) forecast for global growth in 2022 is revised down to 3.7% (from 4.4%), and for 2023 is lowered to 2.8% (from 3.3%), as a result of the war and the ongoing spread of the virus in Asia and elsewhere.[1] For 2024, global growth is unchanged at 2.7%.[2] Dramatically higher oil, commodity and food prices, additional constraints to trade and finance, and rising debt costs create more adverse economic conditions for most emerging and developing economies.

Although policy settings in advanced economies remain broadly accommodative, the onset of policy normalisation by major central banks and higher inflation has tightened global financial conditions. Investor appetite for riskier assets is lower. Economies that failed to take advantage of better global conditions or to reduce large macroeconomic imbalances remain vulnerable.

Last year saw the ongoing recovery of the South African economy from the pandemic, expanding by 4.9% for 2021 as a whole, marginally higher than the 4.8% we had forecast in January.

The South African economy is expected to grow by 2.0% in 2022, revised up from 1.7% at the time of the January meeting. This is due to a combination of factors, including stronger growth in 2021 and higher commodity export prices. Growth in output in the first quarter of this year is likely to be significantly stronger than expected at the time of the January meeting.[3]

Gross domestic product (GDP) growth is forecast to be 1.9% in both 2023 and in 2024.[4] Economic growth at these rates remains well above a low rate of potential growth still constrained by load-shedding and policy uncertainty.[5] Investment by the government sector has weakened significantly in recent years and that of public corporations is forecast to be very modest. Household spending remains supportive as a result of good growth in disposable income, rising asset prices and low interest rates, while private investment has also proved to be more resilient than previously expected.

Overall, and after revisions, the risks to the medium-term domestic growth outlook are assessed to be balanced.

With the low rate of potential growth at present and the upward revision to GDP growth for 2022 and 2023, the output gap closes faster over the forecast period compared to the January meeting. The output gap is expected to turn positive after the third quarter of 2023.

While important commodity export prices such as for coal, iron ore, platinum and rhodium generally decreased in the latter half of 2021, they increased again late in January and have surged further with the outbreak of hostilities in Europe. Oil prices spiked to around US$130 per barrel in the early days of the conflict before easing somewhat. We expect oil prices to average US$103 per barrel for 2022, US$80 per barrel in 2023 and US$75 per barrel in 2024.[6] South Africa's commodity price basket is forecast to rise by 8% for the year as a whole, keeping the terms of trade elevated, before falling sharply in 2023. As a result of these export and import price developments, the current account surplus is expected to increase to about 3% of GDP this year, before easing to 1.6% in 2023 and 0.8% in 2024.[7]

Although fiscal risk has eased, financing conditions remain tight and the yield curve for rand-denominated bonds is steep. Ten-year bond yields increased to about 10.3% in late February, before easing back to around 9.7% at present.

The first two months of this year featured a weaker rand exchange rate, resting somewhat below its equilibrium level. Since then, and despite less favourable global conditions, stronger commodity export prices have appreciated the currency and helped to dampen price pressures. The implied

1 The International Monetary Fund's (IMF) January forecast for global growth in 2022 was 4.4%. The April forecast for 2022 will be released in a few weeks.

2 Global growth in the Quarterly Projection Model (QPM) is a trade-weighted average of South Africa's trading partners.

3 The January forecast for first-quarter growth was 2.1%, seasonally adjusted and annualised. This has been revised up to 3.2%.

4 The growth forecast includes expected changes in the policy rate.

5 Potential growth for 2022 and 2023 is estimated at 0.8%, rising to 1.1% in 2024.

6 The Brent crude oil assumptions in January were US$78, US$72 and US$70 for 2022, 2023 and 2024 respectively.

7 In January, the current account surplus was expected to decline in 2022 to about 0.4% of GDP and to be in a deficit of -0.2% in 2023 (from -1.8%) and -0.6% in 2024 (from -2.5%).

starting point for the rand forecast is R15.41 to the US dollar, compared with R15.60 at the time of the previous meeting.[8]

As the global economy rebounded from the pandemic, aggressive policy easing and supply shortages have increased prices of many goods and commodities.[9] These price increases have passed through to services prices, wages and consumer prices in major economies. Our estimate for inflation in the G3 is revised higher throughout the forecast period, to 5.6% in 2022 and to 3.0% in 2023 (up from 3.1% and 1.7% respectively), before moderating to 2.3% in 2024 (from 1.6%).[10]

Oil prices are revised up further for this year, and fuel price inflation is higher at 26.1% (up from 13.7%). Local electricity price inflation is revised down to 11.0% for 2022 (from 14.5%) and to 9.2% in 2023 (from 12.4%). For 2024, electricity price inflation of 10% is expected, unchanged from the previous meeting.

As a result of higher global food prices, local food price inflation is also revised up and is now expected to be 6.1% in 2022 (up from 4.8%) and 5.1% in 2023 (up from 4.6%). Food price inflation is forecast to ease to 4.4% in 2024 (down from 4.6%).

The SARB's forecast of headline inflation for this year is revised higher to 5.8% (from 4.9%), primarily due to the higher food and fuel prices. While food prices will stay high, fuel price inflation should ease in 2023, helping headline inflation to fall to 4.6%, despite rising core inflation.

Core inflation is forecast to increase to 4.2% in 2022 (up from 3.8%) and to 5.0% in 2023 (from 4.4%), before easing somewhat to 4.7% in 2024 (from 4.5%). Core goods and services price inflation is forecast higher throughout the horizon, and services price inflation exceeds the midpoint of the target by the fourth quarter of this year.

The risks to the inflation outlook are assessed to the upside. Global producer price and food price inflation continued to surprise higher in recent months and could do so again, particularly if the war in Ukraine persists into the growing season. Oil prices increased strongly through 2021 and are up again sharply in the year to date, propelled higher also by the war and economic sanctions. Electricity and other administered prices continue to present short- and medium-term risks. Higher diesel and coal prices may result in upward revisions to our electricity price forecast for 2023. Given below-inflation assumptions for public sector wage growth and higher petrol and food price inflation, considerable risk attaches to a still moderate nominal wage forecast.

Global financial conditions are more volatile at present, and with higher-than-expected inflation, have pushed major central banks to start the normalisation of global policy rates. On balance, and with some exceptions, capital flow volatility is expected to remain high for riskier assets such as emerging market debt and currencies.

Average surveyed expectations of future inflation have increased to 5.1% for 2022 (from 4.8%). Market-based surveyed expectations for inflation have also increased to 5.5%.[11] Long-term inflation expectations derived from the break-even rates in the bond market have also increased.[12]

In the near term, headline inflation has increased well above the midpoint of the inflation target band, and is forecast to breach the target range in the second quarter. Headline inflation then returns close to the midpoint in the second quarter of 2023, taking into account the policy rate trajectory indicated by the SARB's Quarterly Projection Model (QPM). Some risks to the inflation outlook, like food and fuel, have been realised, and other risks, such as currency volatility and capital flow reversals, have become more pronounced.

Against this backdrop, the Monetary Policy Committee (MPC) decided to increase the repurchase (repo) rate by 25 basis points to 4.25% per year, with effect from 25 March 2022. Three members of the Committee preferred the announced increase and two members preferred a 50 basis point rise in the repo rate.

The implied policy rate path of the QPM, given the inflation forecast, indicates gradual normalisation through to 2024. As usual, the repo rate projection from the QPM remains a broad policy guide, changing from meeting to meeting in response to new data and risks.

Economic and financial conditions are expected to remain more volatile for the foreseeable future. In this uncertain environment, policy decisions will continue to be data-dependent and sensitive to the balance of risks to the outlook. The MPC will seek to look through temporary price shocks and focus on potential second-round effects and the risks of de-anchoring inflation expectations.

Current repo rate levels reflect an accommodative policy stance through the forecast period, keeping financial conditions supportive of credit demand as the economy

8 The rand has appreciated by about 3.4% to the US dollar since the January meeting.

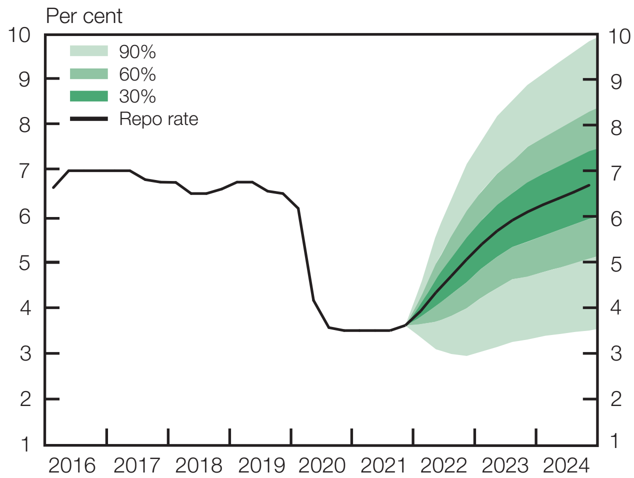
9 World food prices continue to rise. The assumption used for the forecast for US dollar-denominated world food prices in 2022 is revised higher from -2.3% to 6.8%.

10 The G3 comprises the United States, the euro area and Japan. The latest CPI inflation in the respective components sits at 7.9%, 5.3% and 0.9% respectively.

11 The (Q4) Bureau for Economic Research (BER) survey expectations rose above the target midpoint to 5.1% (4.8%) for 2022 and 5.0% (4.7%) for 2023. Market analysts (Reuters Econometer) in March expect inflation to be higher at 5.5% (5.0%) in 2022, unchanged at 4.4% in 2023 and lower at 4.4% (4.5%) in 2024.

12 Market-based rates are calculated from the break-even inflation rate, which is the yield differential between conventional and inflation-linked bonds. These now sit at 6.0% for the 5-year and 6.5% for the 10-year break-even, while 15-year break-even inflation sits at 6.7%.

Repurchase rate forecast (March 2022)



The uncertainty bands for the repo rate are based on historical forecasting experience and stochastic simulations in the QPM. The bands are symmetric and do not reflect any assessment of upside or downside risk.

Source: SARB

continues to recover.[13] The SARB has ensured adequate liquidity in domestic markets and will continue to closely monitor funding markets for stress.

Better anchored expectations of future inflation could support lower interest rates and can be realised by achieving a prudent public debt level, increasing the supply of energy, moderating administered price inflation and keeping wage growth in line with productivity gains. Such steps will enhance the effectiveness of monetary policy and its transmission to the broader economy.

13 The forecasted trajectory for the repo rate implies a rise in the inflation-adjusted repo rate from -1.5% for 2021 to -0.9% for 2022, 1.3% for 2023, and 2.0% in 2024. The real repo rate calculation here is based on the one-quarter-ahead inflation forecast and are annual average rates.

Summary of assumptions: Monetary Policy Committee meeting on 24 March 2022*

1. Foreign sector assumptions

	Actual			Forecast		
	2019	2020	2021	2022	2023	2024
1. Real GDP growth in South Africa's major trading-partner countries	2.3%	-2.6%	6.4%	3.7%	2.8%	2.7%
	(2.2%)	(-2.7%)	(6.2%)	(4.4%)	(3.3%)	(2.7%)
2. Output gap in South Africa's major trading-partner countries (ratio to potential GDP)	-0.1%	-1.6%	-0.8%	0.0%	0.3%	0.3%
	(0.6%)	(-3.1%)	(-1.5%)	(0.4%)	(1.5%)	(1.0%)
3. Change in international commodity prices in US$ (excluding oil)	-1.2%	25.5%	45.6%	8.0%	-23.4%	-8.8%
	(-1.2%)	(25.5%)	(45.6%)	(-22.3%)	(-3.5%)	(0.6%)
4. Brent crude (US$/barrel)	64.4	41.8	70.7	103.0	80.0	75.0
	(64.4)	(41.8)	(70.7)	(78.0)	(72.0)	(70.0)
5. Change in world food prices (US$)	-0.8%	3.2%	28.1%	6.8%	-8.8%	1.4%
	(-0.8%)	(3.1%)	(28.0%)	(-2.3%)	(0.7%)	(1.2%)
6. Change in international consumer prices	1.4%	0.7%	3.3%	5.6%	3.0%	2.3%
	(1.4%)	(0.7%)	(3.1%)	(3.1%)	(1.7%)	(1.6%)
7. International policy interest rate	1.1%	0.2%	0.1%	0.3%	0.8%	1.5%
	(1.1%)	(0.2%)	(0.1%)	(0.1%)	(0.6%)	(1.1%)

2. Domestic sector assumptions

	Actual			Forecast		
	2019	2020	2021	2022	2023	2024
1. Change in electricity price	9.6%	9.1%	10.2%	11.0%	9.2%	10.0%
	(9.6%)	(9.1%)	(10.2%)	(14.5%)	(12.3%)	(10.0%)
2. Change in fuel taxes and levies	5.8%	5.7%	6.1%	5.2%	2.7%	4.6%
	(5.8%)	(5.7%)	(6.1%)	(7.4%)	(3.4%)	(4.4%)
3. Potential growth	0.3%	-3.1%	3.4%	0.8%	0.8%	1.1%
	(0.3%)	(-3.1%)	(3.4%)	(0.8%)	(0.8%)	(1.1%)
4. Inflation target midpoint	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	(4.5%)	(4.5%)	(4.5%)	(4.5%)	(4.5%)	(4.5%)
5. Neutral real interest rate	2.1%	2.0%	2.1%	2.3%	2.3%	2.4%
	(2.1%)	(2.0%)	(2.1%)	(2.3%)	(2.3%)	(2.4%)

Notes

1. Shaded areas indicate forecast assumptions.
2. 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 61 and 62.

Summary of selected forecast results: Monetary Policy Committee meeting on 24 March 2022

Selected forecast results (quarterly)

Year-on-year percentage change

	2021				2022				2023				2024			
	4.5 (4.5)				5.8 (4.9)				4.6 (4.5)				4.6 (4.5)			
1. Headline inflation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	3.1	4.8	4.9	5.5	5.8	6.2	5.7	5.4	4.7	4.3	4.5	4.7	4.8	4.7	4.6	4.5
	(3.1)	(4.8)	(4.9)	(5.5)	(5.6)	(5.0)	(4.7)	(4.3)	(4.1)	(4.5)	(4.5)	(4.6)	(4.6)	(4.6)	(4.5)	(4.5)
	2021				2022				2023				2024			
	3.1 (3.1)				4.2 (3.8)				5.0 (4.4)				4.7 (4.5)			
2. Core inflation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2.8	3.1	3.1	3.3	3.7	4.0	4.3	4.6	4.9	5.0	5.1	5.1	4.9	4.8	4.7	4.6
	(2.8)	(3.1)	(3.1)	(3.3)	(3.7)	(3.8)	(3.8)	(4.0)	(4.1)	(4.3)	(4.5)	(4.5)	(4.5)	(4.5)	(4.4)	(4.4)

Notes

1. Shaded areas indicate the forecasts of the Monetary Policy Committee.
2. The figures in brackets represent the previous forecasts of the Monetary Policy Committee.

Selected forecast results (annual)

	Actual			Forecast		
	2019	2020	2021	2022	2023	2024
1. GDP growth	0.1%	-6.4%	4.9%	2.0%	1.9%	1.9%
	(0.1%)	(-6.4%)	(4.8%)	(1.7%)	(1.8%)	(2.0%)
2. Output gap (ratio to potential GDP)	-0.3%	-4.0%	-2.4%	-1.3%	-0.3%	0.5%
	(-0.3%)	(-4.0%)	(-2.6%)	(-1.7%)	(-0.7%)	(0.1%)
3. Change in nominal effective exchange rate	-7.0%	-12.8%	10.1%	-2.0%	-2.3%	-0.9%
	(-7.0%)	(-12.8%)	(10.5%)	(-4.0%)	(-3.9%)	(-1.4%)
4. Change in real effective exchange rate	-4.5%	-10.6%	11.4%	-2.0%	-0.9%	1.3%
	(-4.5%)	(-10.6%)	(12.0%)	(-2.5%)	(-1.3%)	(1.4%)
5. Real exchange rate gap	-1.3%	-10.8%	0.3%	-1.6%	-2.4%	-1.1%
	(-1.3%)	(-10.8%)	(0.8%)	(-1.5%)	(-2.8%)	(-1.4%)
6. Repurchase rate (end of period)	6.50%	3.50%	3.61%	5.06%	6.10%	6.68%
	(6.50%)	(3.50%)	(3.61%)	(4.91%)	(5.84%)	(6.55%)
7. Current account balance (ratio to GDP)	-2.6%	2.0%	3.7%	3.0%	1.6%	0.8%
	(-2.6%)	(2.0%)	(3.8%)	(0.4%)	(-0.2%)	(-0.6%)

Notes

1. The nominal effective exchange rate (NEER) is based on the bilateral exchange rates of South Africa's three largest trading partners (the euro area, the US and Japan). The bilateral exchange rates are weighted by export trade weights.
2. The real effective exchange rate (REER) is the NEER deflated by the consumer price differential (between South Africa and the trade-weighted CPI of the euro area, the US and Japan).
3. The real exchange rate gap signifies the extent to which the real exchange rate deviates from its estimated equilibrium level. A positive gap shows an overvaluation of the currency, and vice versa.
4. The forecast of the current account balance is obtained from the SARB's Core Macroeconometric Model.
5. Shaded areas indicate the forecasts of the Monetary Policy Committee.
6. 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 broadly determined using the Global Projection Model (GPM), which is 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 six largest trading partners, namely the euro area, the United States (US), the United Kingdom (UK), Japan, China and India. Other countries considered, although with small weights, are Brazil, Mexico and Russia. The remaining trading partners are grouped into the 'Rest of Countries' bloc. Since sub-Saharan Africa is also a major trading region for South Africa (but does not have a bloc in the GPM), it is modelled separately and then combined with the aggregate of all the countries in the GPM to make up total trading-partner growth.

2. As with GDP growth, the output gap is determined using the GPM and is adjusted in a similar way. The output gap is driven by a combination of country-specific domestic factors, external factors and financial-real linkages (beyond interest rate and exchange rate effects). Domestic factors include expectations of future demand and medium-term interest rates. External factors include exchange rate impacts on demand, direct spillovers through trade with trading-partner countries and foreign demand.

3. The commodity price index is a weighted aggregate price index of the major South African export commodities.

4. The Brent crude oil price is expressed in US dollars per barrel. The assumption incorporates supply and demand dynamics as well as oil inventories (of all grades). The assumption is also informed by projections from the US Energy Information Administration, the Organization of the Petroleum Exporting Countries (OPEC) and Reuters.

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

6. International consumer prices are also broadly determined using the GPM. The index is an aggregate of the consumer price indices of the euro area, the US and Japan, weighted by their relative trade shares. Consumer prices are determined for each of these economies by accounting for inflation expectations, demand pressures, and pass-through from changes in the relevant exchange rate. Other institutional forecasts for international consumer prices are also considered.

7. International policy interest rates are again broadly determined using the GPM. Interest rates are a weighted average of the policy rates of the euro area, the US and Japan. They are individually determined by a 'Taylor-type' monetary policy rule. The communications of the relevant central banks and other institutional forecasts are also considered.

Domestic sector assumptions

1. The electricity price is an administered price measured at the municipal level with a weight of 3.63% in the headline consumer price index (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 agreement between Eskom and the National Energy Regulator of South Africa (NERSA), with a slight adjustment for measurement at the municipal level.

2. Fuel taxes and levies are the total domestic taxes and costs included in the price of fuel paid at the pump. They include the Road Accident Fund (RAF) levy, the fuel levy, retail and wholesale margins, the slate levy, and other minor levies. The two major taxes, which are set by the Minister of Finance in the annual National Budget, are the RAF levy and the fuel levy. The income generated by the RAF levy is utilised to compensate third-party victims of motor vehicle accidents, while the fuel levy is used to provide funding for road infrastructure.

3. Potential growth is derived from the South African Reserve Bank's (SARB) 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 No. WP/18/02*).

4. The midpoint of the inflation target range is 4.5%. The official inflation target range is 3–6%.

5. The neutral real interest rate (NRIR) is the interest rate consistent with stable inflation and output in line with the economy's potential. This variable is the basis for judging whether a given policy stance is expansionary, contractionary or neutral.

Glossary

Advanced economies: Advanced economies are countries with high gross domestic product (GDP) per capita, diversified exports, and close integration into the global financial system.

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.

Brent crude: Brent crude is a light and sweet blend of oil from five different fields in the North Sea. The price of Brent crude is one of the benchmark oil prices in international markets.

Budget deficit: A budget deficit indicates the extent to which government expenditure exceeds government revenue.

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

Commodities: 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 the volatile elements (e.g. food and energy prices). The South African Reserve Bank's (SARB) forecasts and discussions refer to headline CPI excluding food, non-alcoholic beverages (NAB), fuel and electricity prices.

Crude oil price: This is the United States (US) dollar price per barrel of unrefined oil. See also 'Brent crude' above.

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 transfers.

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.

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 the 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, as measured on a monthly basis by Statistics South Africa (Stats SA). 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.

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

Neutral real interest rate (NRIR): The NRIR is the level at which the real interest rate will settle once the output gap is closed and inflation is stable.

Nominal effective exchange rate (NEER): The 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 NEER 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: the euro (30.68%), the Chinese yuan (24.53%), the US dollar (10.56%), the Japanese yen (4.95%), and the Indian rupee (4.85%). Index: 2015 = 100. See also 'Real effective exchange rate' below.

Output gap/potential growth: Potential growth is the rate of GDP growth that could theoretically be achieved if all the 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.

Policy rate: A policy rate is the interest rate used by a central bank to implement monetary policy.

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

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

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.

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

Unit labour cost (ULC): A ULC 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

ARS	Argentine peso
BER	Bureau for Economic Research
BRL	Brazilian real
CIT	corporate income tax
CLP	Chilean peso
CNY	Chinese yuan
COP	Colombian peso
COVID-19	coronavirus disease 2019
CPI	consumer price index
CZK	Czech koruna
DM	developed market
EM	emerging market
EMBI+	Emerging Market Bond Index Plus
EU	European Union
Fed	Federal Reserve
FNB	First National Bank
FX	foreign exchange
G3	Group of Three (United States, euro area and Japan)
GDP	gross domestic product
GFC	global financial crisis
GFCF	gross fixed capital formation
Haver	Haver Analytics
HUF	Hungarian forint
ICT	information and communications technology
IDR	Indonesian rupiah
IMF	International Monetary Fund
INR	Indian rupee
JSE	JSE Limited
KRW	Korean won
MOVE (Index)	Merrill Lynch Option Volatility Estimate (Index)
MPC	Monetary Policy Committee
MPIF	monetary policy implementation framework
MPR	*Monetary Policy Review*
MTBPS	*Medium Term Budget Policy Statement*
MTEF	Medium-Term Expenditure Framework
MXN	Mexican peso

MYR	Malaysian ringgit
NAB	non-alcoholic beverages
NEER	nominal effective exchange rate
OPEC	Organization of the Petroleum Exporting Countries
PIT	personal income tax
PLN	Polish zloty
PPI	producer price index
QPM	Quarterly Projection Model
REER	real effective exchange rate
REIPPP	Renewable Energy Independent Power Producer Procurement (Programme)
repo (rate)	repurchase (rate)
rhs	right-hand scale
RUB	Russian rouble
SA	South Africa(n)
SARB	South African Reserve Bank
SGD	Singapore dollar
SIT	services, income and current transfer
SRD	Social Relief of Distress (grant)
SSA	sub-Saharan Africa
Stats SA	Statistics South Africa
THB	Thai baht
TRY	Turkish lira
TWD	New Taiwan dollar
UK	United Kingdom
ULC	unit labour cost
US	United States
VAT	value-added tax
WEF	World Economic Forum
ZAR	South African rand