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# Less risk and more reward: revising South Africa's inflation target

Christopher Loewald, Rudi Steinbach and Jeffrey Rakgalakane*

**Abstract**

South Africa's inflation target is an outlier when compared with peer emerging markets and major trading partners. The high and wide inflation target keeps long-term inflation risks higher than they need to be, depressing economic growth and deepening inequality. A lower inflation target creates better macroeconomic outcomes by reducing inflation and borrowing costs and improving the transmission of policy, indirectly generating both macroeconomic stability and growth gains. This paper looks at how a 3% point inflation target strengthens the macroeconomic framework and sets off a positive interaction of critical macroeconomic drivers, enabling South Africa to harness significant, permanent and broad-based benefits from lower inflation. We model a lower inflation point target through the SARB's quarterly projection model and an enhanced version of its core macroeconometric model to assess the macroeconomic, growth, fiscal and distributional implications.

**JEL classification**

E43, E47, E50, E60

**Keywords**

Monetary policy, inflation, fiscal policy, economic growth, emerging markets, South Africa.

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## 1. Introduction: South Africa's stagflation[1]

South Africa's inflation-targeting framework has vastly improved control of inflation and inflation expectations compared to its previous, pre-2000, eclectic approach. By international standards, South Africa's monetary policy and inflation forecasting have a high degree of transparency and credibility (International Monetary Fund (IMF) 2024). But ultimately, better control of inflation should achieve stronger macroeconomic outcomes. Inflation remains well above that of trading partners and the inflation premium in short- and long-run interest rates is far too high, undermining investment. South Africa's price level increases faster than that of its trading partners, reducing competitiveness. To get lower interest rates and other economic gains, inflation must also be permanently lower. The central bank should target 3% for headline consumer price inflation and set this as its point target.

In this paper, we set out the macroeconomic, growth, fiscal and distributional implications of reducing the inflation target from 4.5% to 3%, using the SARB's quarterly projection model (QPM) and an adjusted form of the core macroeconometric model. Our forecasting results show why there are net benefits to the economy (relative to the short-term costs), and we assess the tried and tested means of lowering those costs.

However, in our view, the model results set out in this paper are conservative and understate the economic gains from lowering the inflation target, especially given current modest inflation. Recent estimates by Kima and Lesame (2025), for example, find significantly larger gains in the short to medium term. We think a lower, credible inflation target can strengthen the rand more in the short run and rapidly decrease inflation, reducing nominal and real interest rates and providing a positive, investment-driven impetus to GDP growth. Interest rate levels and credit spreads will compress, reducing borrowing costs, promoting saving and lengthening investment horizons. With inflation premia falling, the nominal neutral interest rate could decline to around 5%

[1] This paper benefited from comments by Laurence Harris, Nicola Viegi, Thulisile Radebe, David Faulkner, Theo Janse Van Rensburg, Konstantin Makrelov, Witness Simbanegavi and other staff at the SARB.

relatively quickly. Over the longer term, a lower inflation rate will result in less real appreciation of the exchange rate, increasing the competitiveness of local producers.[2]

We present the merits of having a lower inflation target and discuss how to minimise transition costs, including where inflation interacts with the fiscal position. The debt stock can be renewed over time, but at significantly lower interest rates, pushing down debt service costs and their strongly negative effects on real fiscal resources. Savings on inflation-linked bonds alone would be large, with much larger gains accruing now and over time as debt is rolled over. Reducing inflation will also be consistent with and reinforce other growth-friendly reforms.

## 2. A macroeconomic reset is needed

South Africa's high interest rates primarily reflect the economic risk of lending into an economy with weak expected growth and already high debt levels. In these conditions, large benefits would be generated by directly de-risking the macroeconomic policy framework with lower sovereign, credit and term risk, while progressively expanding the microeconomic growth reforms currently underway.[3]

The clearest path to reducing risk is to increase domestic savings, providing more local funds for investment. This cannot be accomplished with larger public deficits when spending multipliers are very low, nor through allowing inflation to tax incomes. Higher inflation increases real growth and tax revenue only if it is unanticipated and temporary, and even then shortens investment maturities and increases interest rates, both of which are negative for investment and the fiscal position.[4] Even small increases in interest rates constrain spending options when debt is high, while any adverse fiscal news raises expectations of higher future inflation, again pushing up both real and

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2 Periods of real depreciation (2000–2008, 2012–2017, 2020–2022) are positive foreign demand shocks that also moderate inflation, raising aggregate demand and production through several channels.

3 The OECD's *Going for growth* report (2023) notes that South Africa's regulatory policies remain restrictive, and competition is low in many key network industries, in part due to distortions induced by state involvement. An inefficient cash transfer system and labour rigidities keep unemployment levels and poverty rates high.

4 See Arslanalp and Eichengreen (2023).

nominal rates. More broadly, attempts to stoke growth through fiscal deficits have indirectly resulted in higher tax rates, which constrain economic growth.[5]

With debt-service costs growing faster than nominal GDP, the real, inflation-adjusted fiscal envelope available for public spending decreases, requiring even more borrowing to buy the same amount of services, goods and employment. Finally, much of this rise in borrowing and interest costs is locked in due to indexation of annual spending escalations and administered prices to ex-post inflation. Higher inflation therefore cannot reduce real debt levels. Today, interest payments absorb more than 20% of government revenue and in excess of 5% of GDP.

The transition to a lower inflation target raises questions about the potential costs associated with moving from one equilibrium to another. The standard objection to lower inflation is that it requires raising interest rates, imposing a short-run cost on output and on the fiscal position when debt levels are high. As we discuss below, historical experience and what we know about policy design and credibility are clear about why transition costs are much lower than the conventional view asserts, and clear too about how to minimise these costs.

A lower inflation rate has broad macroeconomic benefits as borrowing costs for all actors in the economy fall. The transmission of policy improves, with smaller changes to policy rates needed to get quicker inflation responses, indirectly generating both macroeconomic stability and growth gains. Our estimates show GDP growth rising by 0.25% within five years and around 0.4% after a decade. These estimates are on the low side and reflect conventional conservative assumptions in macroeconomic models that posit short-term costs to lowering inflation that are set against long-term gains. We believe the net growth gains will be significantly larger as the tax burden falls, viable investment horizons extend and competitiveness improves.

A lower inflation rate also strengthens social cohesion by reducing the effect of inflation on purchasing power and on the job prospects of lower-income workers and their

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5 As evidenced by falling fiscal multipliers. See Janse van Rensburg, de Jager and Makrelov (2021).

households, and removing it as a factor in day-to-day decision-making for households and firms. Lower inflation will, on its own, help fiscal policy achieve better fiscal multipliers by redistributing spending from expensive interest payments to more productive budget priorities.

South Africa's 3–6% inflation target range is now 25 years old. The degree to which South Africa has fallen behind its emerging market peers and trading partners in terms of its inflation target, along with the associated costs, was recently underscored by leading international and local experts at the SARB Biennial Conference on lessons for the future of inflation targeting.[6] Participants in the conference, which assessed the widespread adoption of inflation targeting as a global monetary standard and analysed the experiences of advanced economies, emerging markets and South Africa, argued strongly for a lower inflation target in South Africa.

### 3. A lower inflation target

The monetary policy review completed by Honohan and Orphanides (2022) recommends a lower point inflation target of 3%, motivated by the economic costs of South Africa's relatively high current inflation target when compared with other emerging economies (Figure 1).[7]

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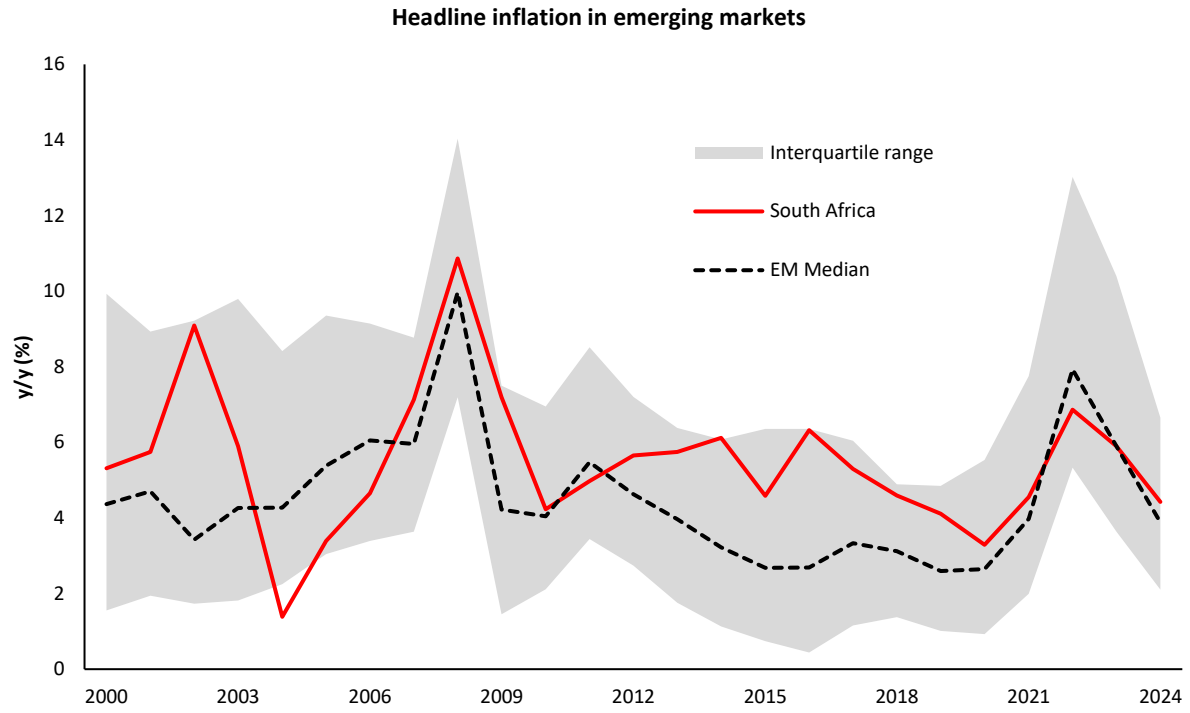
6 '25 years of inflation targeting: lessons for the future', SARB Biennial Conference, 27–28 March 2025. URL: https://www.resbank.co.za/en/home/what-we-do/research/Biennial

7 South Africa's realised inflation rate has been consistently above the median of emerging market and developing economies. Among the 149 emerging market and developing economies for which data are available, South Africa's inflation rate ranked 94th in 2024, despite inflation averaging close to the 4.5% target midpoint.

**Figure 1: South Africa's inflation rate relative to emerging market peers**



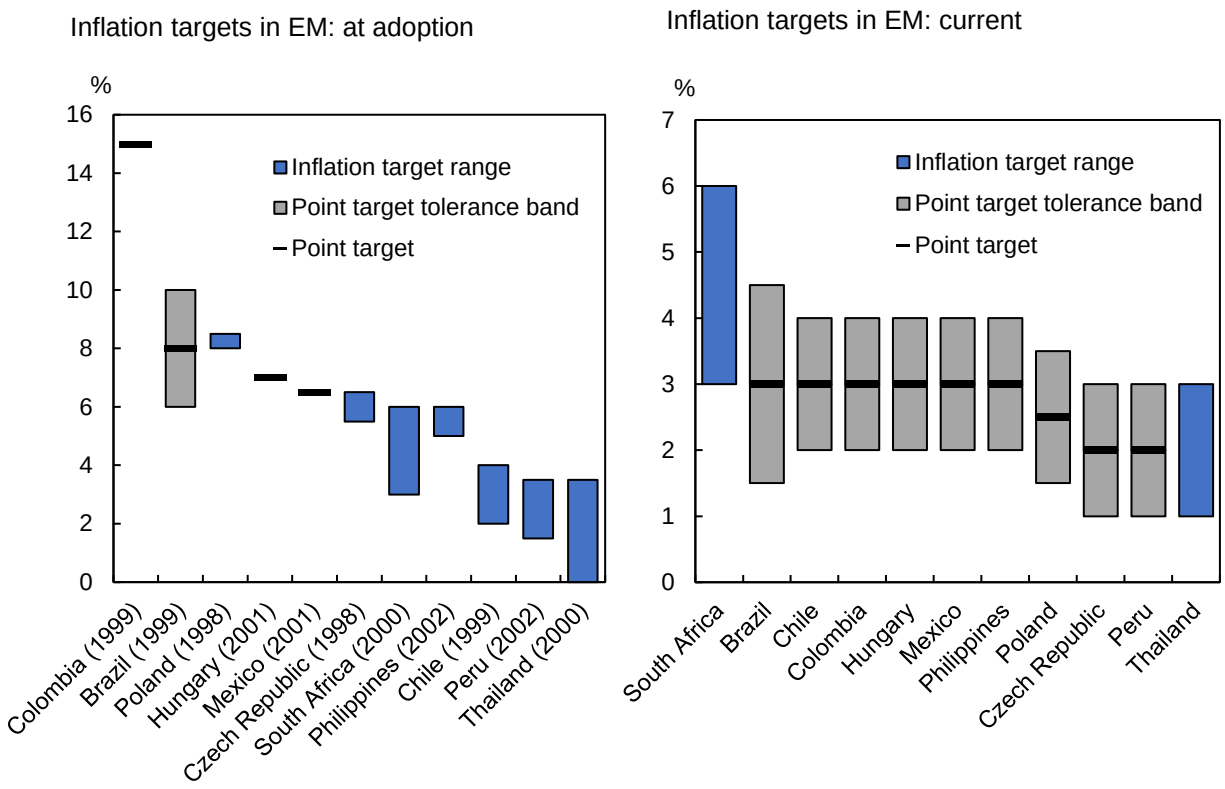

Source: IMF and SARB

When emerging market countries introduced inflation targeting, the targets were generally set to high levels – reflecting high inflation at that time.[8] However, emerging economies have lowered these to reduce inflation and improve central bank credibility (Figure 2). Now targets are closer to 3%. South Africa, however, having kept its 3–6% target range unchanged since the inception of inflation targeting in 2000, is an outlier. Its target is now higher than its peers, and at odds with recent estimates of the optimal rate of inflation of 2–3% (Hall 2025).[9]

[8] Countries such as Chile and Mexico set annual targets until inflation was brought to lower single digit levels, at which point they moved to permanently low (3%) inflation targets.

[9] The gradual lowering of the inflation target band over time was a design feature of the original South African inflation-targeting framework. This lowering, however, was never implemented. Thus, this paper can be seen as a call to revert to the original inflation-targeting framework.

**Figure 2: South Africa's inflation target range has become an outlier compared with other emerging markets**




Source: National sources and BIS

From a design perspective, 3% is high enough to avoid reaching the zero lower bound and also to accommodate relative price adjustments in the economy. Such a rate of inflation is closer than the current target to what theory says is economically optimal (around 0%), and yet allows for enough inflation so that price frictions (like nominal wage rigidity or sectoral price distortions) do not carry economic costs when interest rates adjust (Diercks 2017; Galí 2010).[10]

As shown in Figure 2, from an empirical point of view, few economies target inflation above 3% and when they do, they do it for temporary reasons of adjustment. Those temporary efforts, however, in retrospect are often seen to be costly, as South Africa's experience suggests.

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[10] Where there are strong structural drivers of low inflation already in place, such as in countries with adverse demographic trends of rapidly ageing populations, the optimal rate may be somewhat higher to help central banks avoid the zero lower bound, although quantitative easing policies may obviate the need to raise inflation targets from the current 2% level in some advanced economies.

Anchoring inflation expectations, a prerequisite for a flexible inflation target, requires as clear a target as possible, supporting the case for an unambiguous point target rather than any kind of band.

Moreover, since high levels of monetary policy credibility and communication minimise transition costs, we recommend an adjustment to the inflation target to be carried out over the current inflation forecast trajectory. Doing so takes advantage of the ongoing deceleration in global and domestic inflation and maximises the credibility-enhancement effect on inflation expectations. This implies that by the end of 2027, South Africa should achieve an inflation point target of 3%.

The implicit rates goal should be a neutral nominal repo rate of about 5%, reflecting a lower neutral real rate, achieved in large part by a lower country risk premium.

The exchange rate channel should be important for delivering lower inflation quickly, particularly if lower inflation reduces public debt-service costs significantly. As the discussion below outlines, the fiscal savings from a permanently lower interest rate schedule will be large.

The monetary policy literature emphasises the importance of communication in helping the public focus inflation expectations on the central bank's target and thereby maximise benefits of the shift. This 'commitment credibility' will be further enhanced by the current fiscal planning trajectory that sets out fiscal consolidation, better control over public sector wages and, with other public sector reforms, fewer fiscal risks arising from state-owned enterprises. The fiscal authorities should then align their communications with the new de-facto target and rationale.

In the next section, we briefly review the performance of South Africa's inflation-targeting framework up to the present day. In the remainder of the paper, we discuss the economic benefits of lower inflation; outline the mechanics through which a decline in the inflation target underpins long-term macroeconomic gains; assess the fiscal

implications of a lower inflation target; and conclude with the costs of disinflation and what may mitigate these.

## 4. South Africa's inflation is a feature, not a bug, of an incomplete inflation-targeting framework

South Africa's inflation-targeting framework was implemented in March 2000, as a band target of 3–6% of the CPI measure at the time, for one year. The framework was set to narrow to a band of 3–5% in 2001, and to 2–4% in 2004. This narrowing of the band was intended to flexibly guide expectations lower, but was put into abeyance in 2001 and again in 2002 as the international financial crises of the period erupted.[11] These target adjustments were not revisited by the Inflation Targeting Technical Committee or its successor, the Macroeconomic Standing Committee, until 2017.

The global financial crisis (GFC) entailed both a sharp inflation shock (across oil, food and wages) and weaker economic growth, and resulted in a shift towards expansionary macroeconomic policy choices. Monetary policy was kept accommodative for several years, with real interest rates below the neutral level and often negative. Fiscal policy was characterised by growth in real spending that outpaced GDP growth, consistently large budget deficits that saw the primary budget balance average a deficit of 1.4% of GDP from 2009/10 to 2019/20, and a rapid rise in debt levels. While these expansionary macro policy settings initially helped the recovery in the period up to 2013, they also enabled a gradual rise in inflation (following its moderation in the immediate post-GFC period).

After the initial recovery from the crisis, South Africa began to experience the stagflationary malaise that has characterised the past decade. Economic growth persistently slowed, in particular from 2013 to 2016, and inflation outcomes trending

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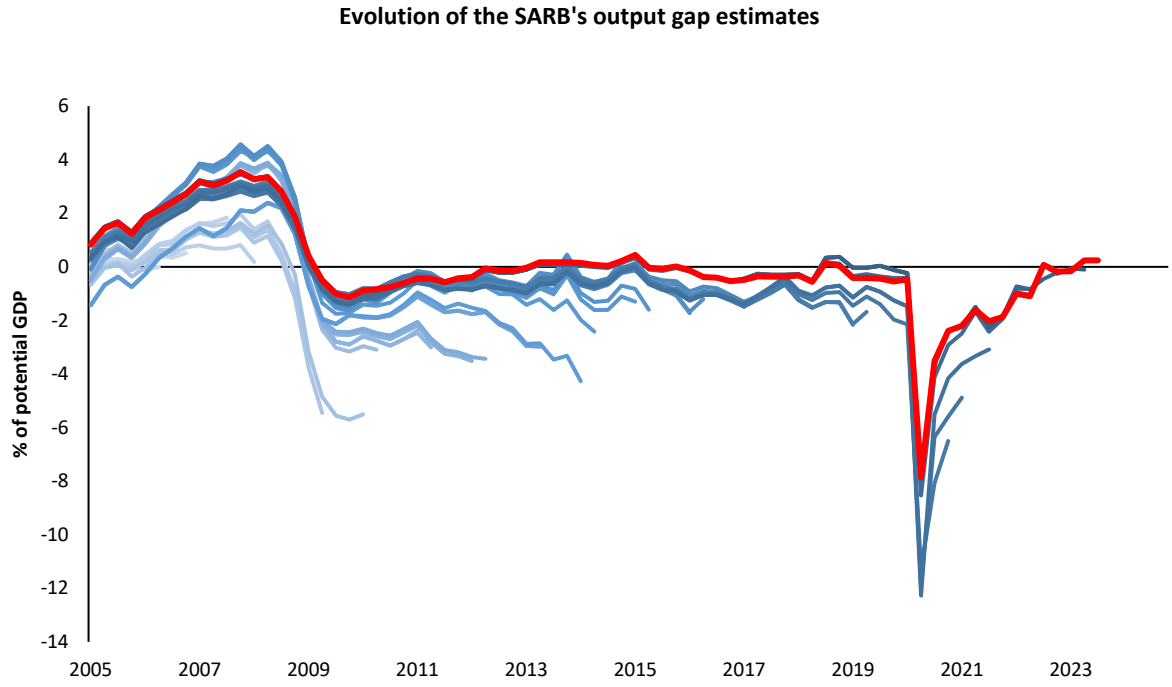
[11] In 2002, the Ministry of Finance noted that "The rise in inflation this year is a setback for the inflation reduction objectives agreed between the Government and the Reserve Bank … the inflation target for 2002 and 2003 will be missed, and the CPIX average is unlikely to fall within the target range again until the last quarter of next year. Under the circumstances, the Minister of Finance and the Governor of the Reserve Bank have agreed that the inflation target should remain 3 – 6 per cent for 2004. The 3 – 5 per cent target falls away until further notice." See National Treasury (2002), p. 4–5. Also see the affirmation of the 3–6% target in 2004 in National Treasury (2004), p. 29.

between 5% and 6% became the norm. This combination of low growth and inflation at the top of the target band was an outcome of the policies set at the time, with both monetary and fiscal policies remaining fairly accommodative. Inflation at these levels became entrenched in expectations of future inflation held by economic agents. From an analytical perspective, fiscal and monetary policies were set based on overly high assumptions for potential growth and the resulting estimates of large and persistent negative output gaps. Ex-post assessments such as by Honohan and Orphanides (2022) show that potential growth assumptions were far too high and output gaps were, in reality, far smaller than commonly thought (Figure 3).

**Figure 3: Historical output gap revisions**




Source: SARB

Progress in lowering inflation has been made since the Monetary Policy Committee (MPC) announced a clear preference for the midpoint of the target range in late 2017. Headline inflation averaged 5.4% over the 2010–2017 period and was often close to the top of the band, presenting ongoing risks of abruptly higher interest rates and undermining the credibility of policy.

Headline inflation fell to an average of 4% over the 2018–2019 period, while core inflation eased to around 3%. This enabled lower short-term interest rates, created additional monetary policy space to support economic activity during the COVID-19 pandemic, and increased the value of (and demand for) government debt.

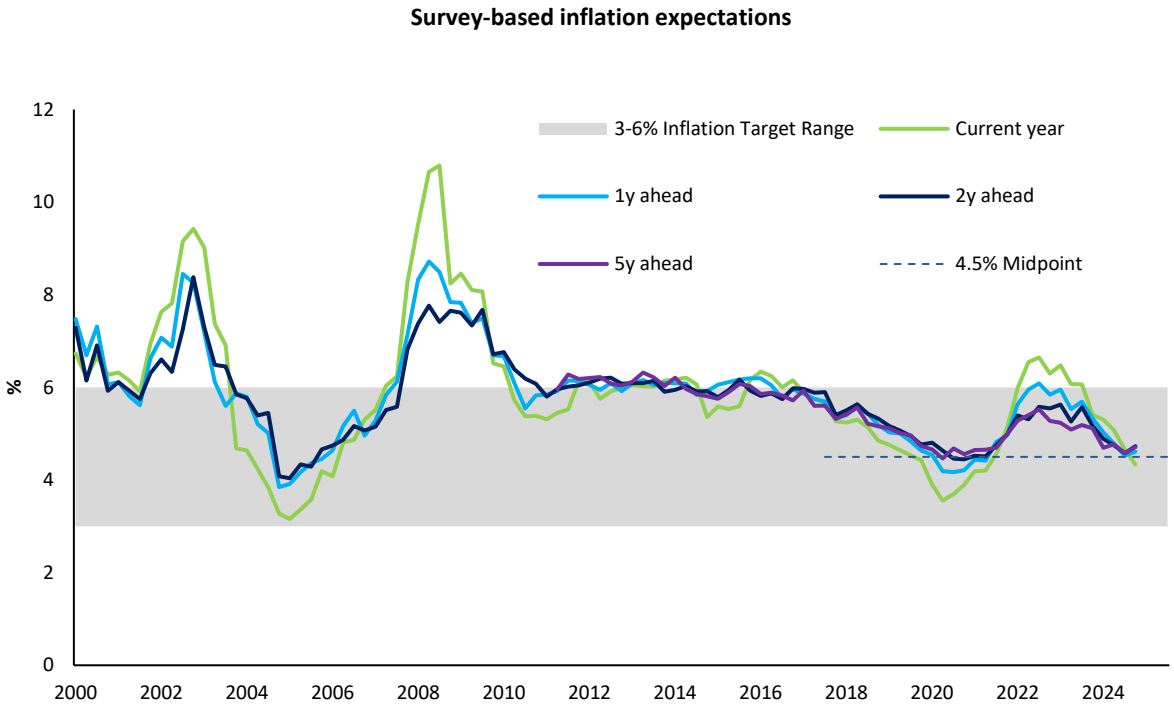
Post-pandemic, inflation increased from the lows of the early months of 2021, pushed higher primarily by global food and oil prices, alongside a rise in prices of core goods and services. Headline inflation peaked in July 2022 at 7.8%, gradually easing to about 5% from the second half of 2023 before slowing sharply at the end of 2024 to about 3%. Moderation in exogenous prices has played an important role in inflation's trajectory, alongside modest core inflation pressures.

The SARB forecast shows a gradual rise in inflation before trending around 4.5% from the end of 2025 onwards, but there is considerable uncertainty about the terminal nominal and real rates. Some inflation drivers, including unit labour costs, the exchange rate, core inflation and import prices for non-food inflation, have been unusually low, suggesting upside risks to them and implying ongoing risk to core inflation. In the March MPC statement, the committee noted material risks from the external environment.

The primary empirical sources of rigidities in South Africa's inflation dynamics are administered prices and public and private wage and mark-up pricing. The latter two have sharply eased, as can be seen by private wage outcomes and margin compression. Administered prices and public wages have also shown greater sensitivity to economic conditions in recent years.

As South Africa's experience demonstrates, target setting plays out in actual inflation outcomes. South Africa's inflation rate has been consistently above the median of emerging market and developing economies since 2011, reflecting differences in inflation targets, policymaking itself and communications. Inflation expectations settled near the upper end of the target, until the SARB moved to actively target 4.5% from late-2017, with some improvement in expectations in the midst of the pandemic and over the past 18 months (Figure 4).

**Figure 4: South African inflation expectations since the adoption of inflation targeting**




Source: Bureau for Economic Research and SARB

## 5. The permanent benefits of lower inflation

The widespread adjustments by other emerging economies to lower inflation targets reflect the range of benefits that accrue from a sustained decline in inflation. The primary benefits are less economic uncertainty, which increases productive investment, reduces the loss of competitiveness over time, and supports economic growth and job creation. Inflation falls away as an impediment to investment and consumption choices when it is sufficiently low and stable and need not be explicitly factored into the economic decisions of households and firms.[12]

From a distributional perspective, these benefits are largest for social groups that have little protection from the real income effects of higher inflation, as opposed to highly indebted groups, those with pricing power in wage determination, or those with assets whose real value is invariant to inflation.

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12 Former Federal Reserve Board chairmen Paul A. Volker and Alan Greenspan defined price stability as a condition in which inflation does not materially influence the behaviour of economic agents.

An important benefit of low and stable inflation is that it, all else equal, promotes fixed investment.[13] Lower inflation reduces nominal (and real) interest rates, in turn decreasing the cost of capital. Returns to investment and saving become more predictable and clearer relative price signals support economic growth (Fischer and Modigliani 1978).

Firms can better predict future costs and prices, while investment quality will improve with benefits for productivity and competitiveness. Furthermore, lower inflation increases the real value of tax deductions for depreciation, further reducing the cost of capital (Beer, Griffiths and Klemm 2023).

By reducing nominal interest rates, lower inflation also reduces firms' interest payments on future debt, lowering the hurdle rate for future investment. Higher levels of investment are key for the long-term growth outlook. South Africa's current investment ratio of just 14% of GDP is substantially below its peak from a decade ago and the 25% rate identified by Spence (2008, p. 34) as necessary to underpin rapid and sustained growth. Among large middle-income economies, countries with lower inflation tend to have higher investment rates (Figure 5).

Inflation also affects savings and portfolio flows. Low inflation is less corrosive of existing capital, keeping the stock of savings stable in real terms and therefore increasing future consumption. This protection of the domestic savings stock is especially beneficial in a low saving economy, like South Africa. Over the last 20 years, the South African current account, which presents a measure of the savings-investment gap, recorded a deficit in 18 of those years, financed by foreign capital inflows. If South Africa had recorded lower inflation over the period, real returns for foreign investors would have been higher and less volatile, resulting in a lower cost of accessing foreign savings.

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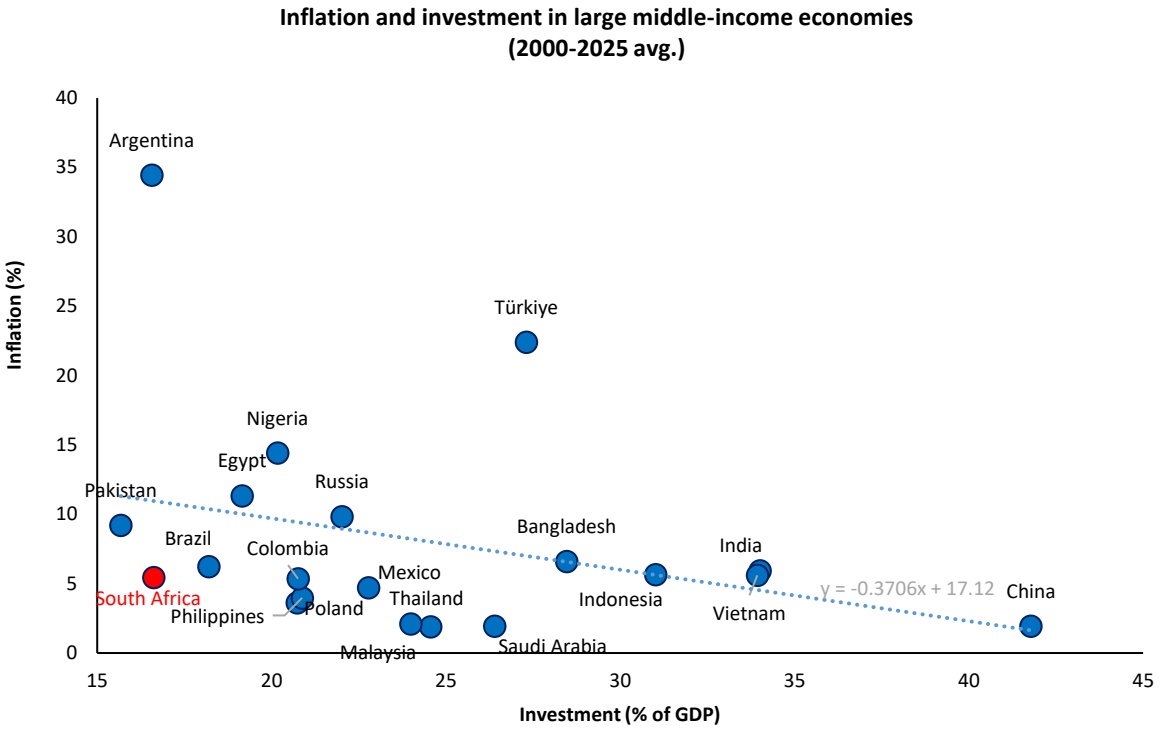
[13] Using a factor model and historical data, we estimate that a 1 percentage point fall in inflation over the next year results in an 80 basis point lower yield on 10-year bonds. A fixed income valuation model shows that a 1 percentage point reduction in inflation in one year's time reduces the yield to maturity of the Treasury's debt portfolio by around 50 basis points. A permanent 50 basis point decline in the real long bond interest rate increases the level of real investment in South Africa by roughly 7% after 10 years (or roughly 1.5% of GDP). The peak impact on the growth rate of investment is 0.35% in three years' time (Botha et al. 2017).

**Figure 5: Inflation and gross fixed capital formation in large middle-income economies**




Source: IMF and SARB

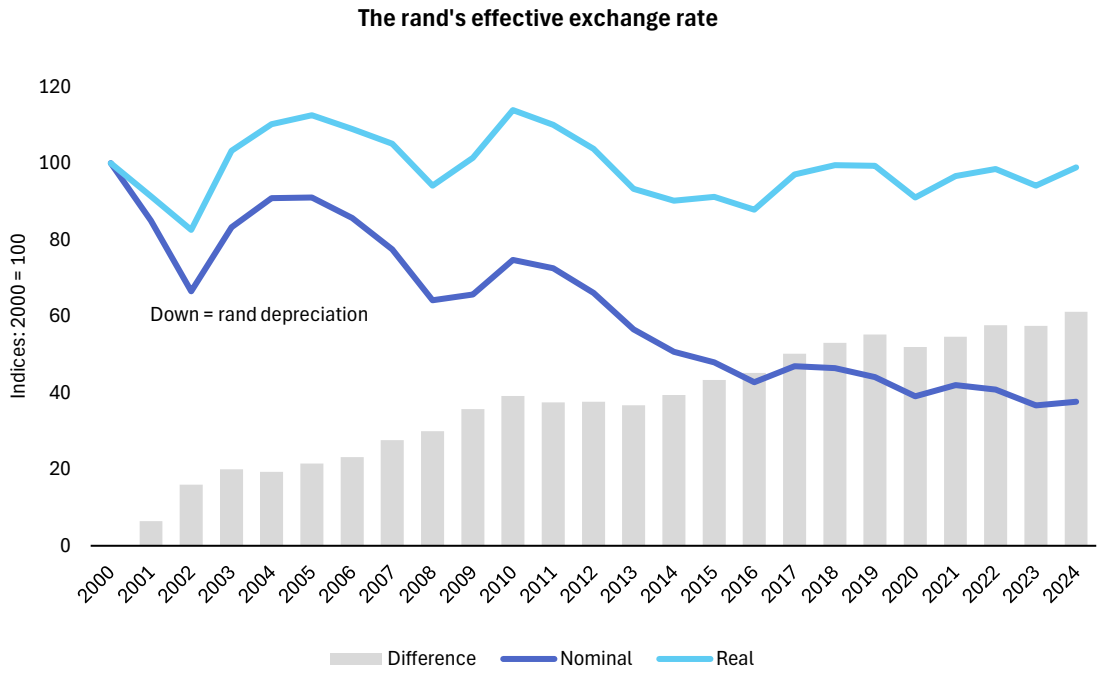
Other indirect but important benefits include protecting the welfare of those living on income grants, low wages, and fixed incomes and pensions (Loewald and Makrelov 2020). Household purchasing power is better maintained with lower inflation, particularly for individuals and households who are not economically active. Working households also benefit from reduced finance costs and over time better earnings and job opportunities (Turok and Visagie 2021). This supports poverty reduction and reduces inequality in the economy as the employment elasticity to growth for less skilled workers is higher than for skilled workers.[14]

The external dimension of comparative inflation performance is also critically important, as shown by Corden (1960), Salter (1959), Dornbusch (1974) and Loewald (2017). One consideration is that low inflation reduces uncertainty for both importers and exporters. Maintaining or improving competitiveness requires preventing continuous real currency appreciation, caused by domestic prices rising faster than those in trading partners. In

14 The impact on inequality also depends on reducing the skills premium, which can offset the impact of larger employment gains for the lower deciles and increase inequality.

South Africa's case, relatively higher inflation has meant that nominal exchange rate depreciation has systematically failed to translate into meaningful competitiveness gains (Fowkes, Loewald and Marinkov 2016) (Figure 6).[15] If the SARB achieves full policy credibility at a low inflation rate, then nominal exchange rate depreciation generates real exchange rate depreciation and better export performance.

**Figure 6: The rand against a basket of currencies in nominal and inflation-adjusted terms**




Source: SARB

Finally, South Africa's country and sovereign risk has been high since 2013, with sharp spikes in recent years as a result of growth, fiscal, political and policy risks. Lowering the inflation target will create significant gains for the fiscal framework, in particular by taking pressure off long-term bond yields and reducing debt-service costs, which have been the fastest growing expenditure line for government, increasing by more than 13% per year since the GFC. In terms of real resources and fiscal multipliers, reducing debt-service costs frees up financial resources for further debt reduction or other socio-

15 Given the nature of South Africa's import basket (particularly investment and consumer goods), depreciations have tended to put pressure on domestic production costs as well as consumer prices (see Kabundi and Mbelu 2018).

economic needs that can boost human capital accumulation, investment and growth (Janse van Rensburg, de Jager and Makrelov 2021).

A shift in the inflation target raises some important questions about its potential economic costs. The largest cost of lowering the target would in theory come from misallocations of investment that derive from expectations of higher inflation that do not then transpire. These are disinflation costs caused by a mismatch between expected and realised inflation and depend on how inflation adjustments are stipulated in contracts. South Africa's own experience, empirical estimates discussed below, and what we learn from comparative best practice all suggest low costs from disinflation.

## 6. Short-run effects of a target change

SARB forecasting models confirm general empirics about disinflation, with a short-run economic cost eclipsed by permanent gains. To estimate the short-run effects, we use the SARB's main forecasting model, the QPM, detailed in Pirozhkova et al. (2023).[16] The QPM structure expresses macroeconomic outcomes as deviations from their respective equilibrium values, that is, cycles around long-run trends. These equilibriums are not affected by the cyclical behaviour of the economy, nor the stance of monetary policy. When using the QPM to simulate a change in the inflation target from 4.5% to 3%, the model shows the cyclical adjustment to a lower inflation target but does not show long-run benefits from lower inflation like stronger investment, higher potential growth or lower risk premia.

The announcement of the 3% inflation target triggers the start of a disinflation process by lowering inflation expectations. This happens because inflation expectations have both forward- and backward-looking components, and are determined not only by recent inflation outcomes and past inflation expectations, but crucially by the central bank's inflation target. Including the inflation target in the formation of inflation expectations is also consistent with empirical evidence that shows the SARB has become more effective at anchoring inflation expectations (Miyajima and Yetman 2018). The post-

[16] For previous iterations of the QPM, see Botha et al. (2017), De Jager, Johnston and Steinbach (2015) and De Jager (2007).

pandemic experience supports this, with a short-lived rise in expectations in response to the sharp pick-up in inflation during 2022 before a relatively quick return to the 4.5% target midpoint amid declining inflation and a somewhat restrictive policy stance.

In the QPM, inflation expectations are captured by the following equation:[17]

$$\pi_t^{expectations} = f(\pi^{target}, \pi_{t-1}). \quad (1)$$

As inflation expectations start to fall, CPI inflation begins to shift lower (Figure 7), with lower inflation expectations a key driver of the decline. Core to this is the role played by inflation expectations in the transmission of monetary policy as they affect current inflation by influencing the setting of prices and wages. Inflation expectations play a direct role in the QPM's price formation process, represented by the model's Phillips curve equations (Equation 2). These equations measure the impact of inflation expectations, past inflation, unit labour costs, imported inflation, the output gap, the exchange rate, additional labour market pressures, and spillovers from electricity and fuel prices on inflation.

$$\pi_t^{cpi} = (1 - \alpha_1 - \alpha_2)\pi_t^{expectations} + \alpha_1\pi_{t-1}^{cpi} + \alpha_2\pi_t^{imported} + \pi_t^{ULC} + rmc_t, + spillovers_t, \quad (2)$$

where $\pi_t^{cpi}$ represents inflation, $\pi_t^{ULC}$ is nominal unit labour cost growth, and $rmc_t$ captures demand, exchange rate and additional labour market pressures. There are separate Phillips curve equations for services, core goods and food inflation, with inflation expectations playing a role in each; and alongside fuel and electricity inflation, these add up to headline inflation in South Africa.

As wage dynamics (Equation 3) respond to lower inflation, nominal wage growth slows and the disinflation process gains momentum through a moderation in unit labour costs, which reflect nominal wages adjusted for productivity.

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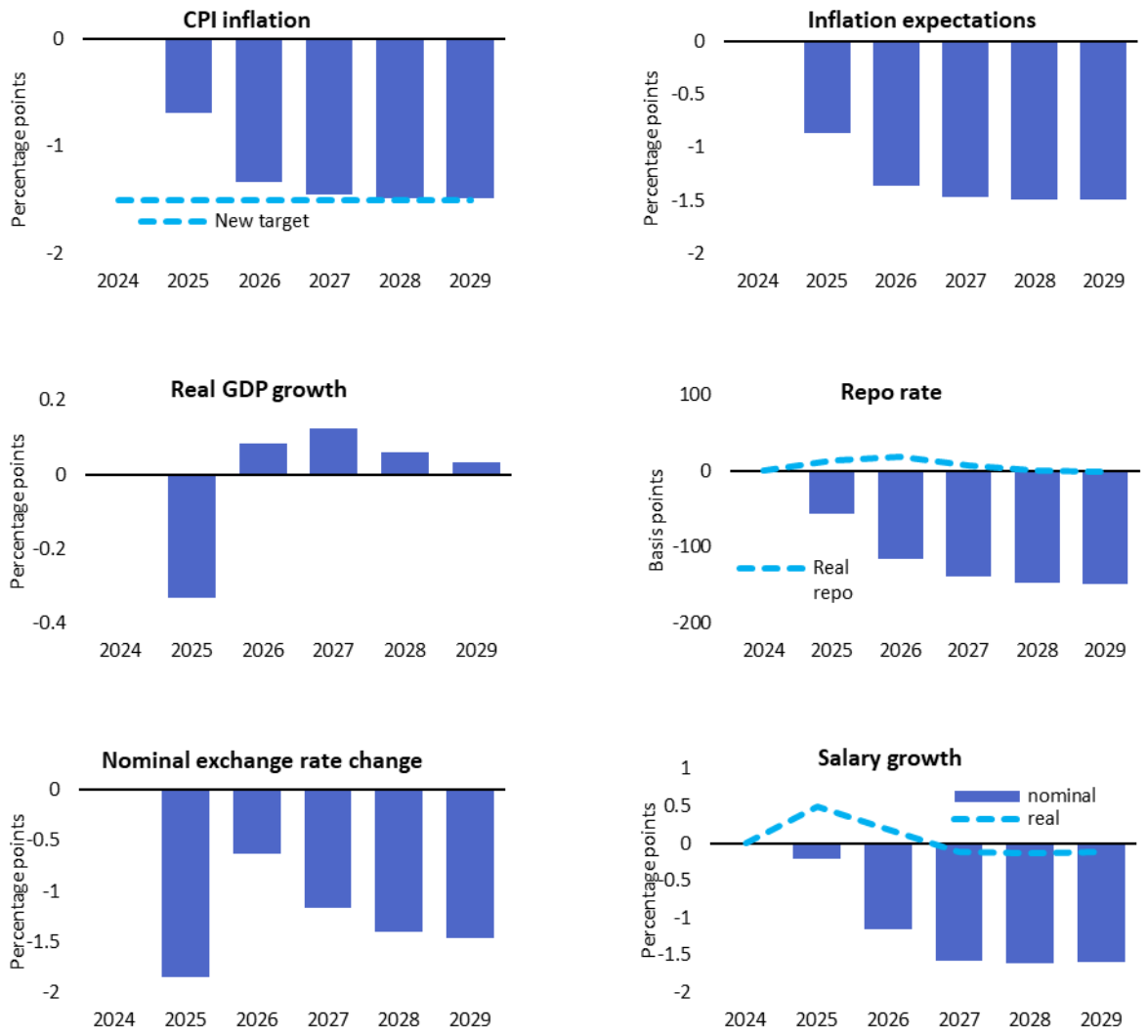
17 The QPM has been calibrated so that the direct weight of the target (0.34) is more than double the weight on previous inflation outcomes (0.16). Past inflation expectations have the biggest weight (0.5), to reflect the inertia in how expectations evolve.

$$\pi_t^w = (1 - \theta_1 - \theta_2)\pi_{t+1}^w + \theta_1\pi_{t-1}^w + \theta_2\pi_{t-1}^{cpi} + rmc_t^w, \quad (3)$$

where $\pi_t^w$ is nominal wage growth, which becomes unit labour costs when adjusted for productivity.

The combination of these channels causes inflation to fall by around 0.7 percentage points during the first year after the target announcement, and by a similar magnitude in the subsequent year, as businesses and wage earners incorporate the new target in their pricing decisions. The initial drop in inflation allows monetary policy to ease in nominal terms, although this occurs at a somewhat slower pace than the decline in inflation, in turn temporarily raising the real interest rate. This appreciates the exchange rate and also reduces the inflation differential with South Africa's trading partners. The combination of a stronger exchange rate and tighter real interest rate reduces economic activity by 0.3 percentage points in the first year after the announcement, with these reactions contributing further to lowering CPI inflation.

**Figure 7: QPM key macro response resulting from a 3% inflation target (changes from baseline)**




Source: SARB

## 7. Long-term effects

To model the longer-run effects of a change in the target, we use the SARB's core macroeconometric model, with an enhanced role for inflation expectations to enable the long-term modelling of a reduction in the inflation target.[18] Following the announcement

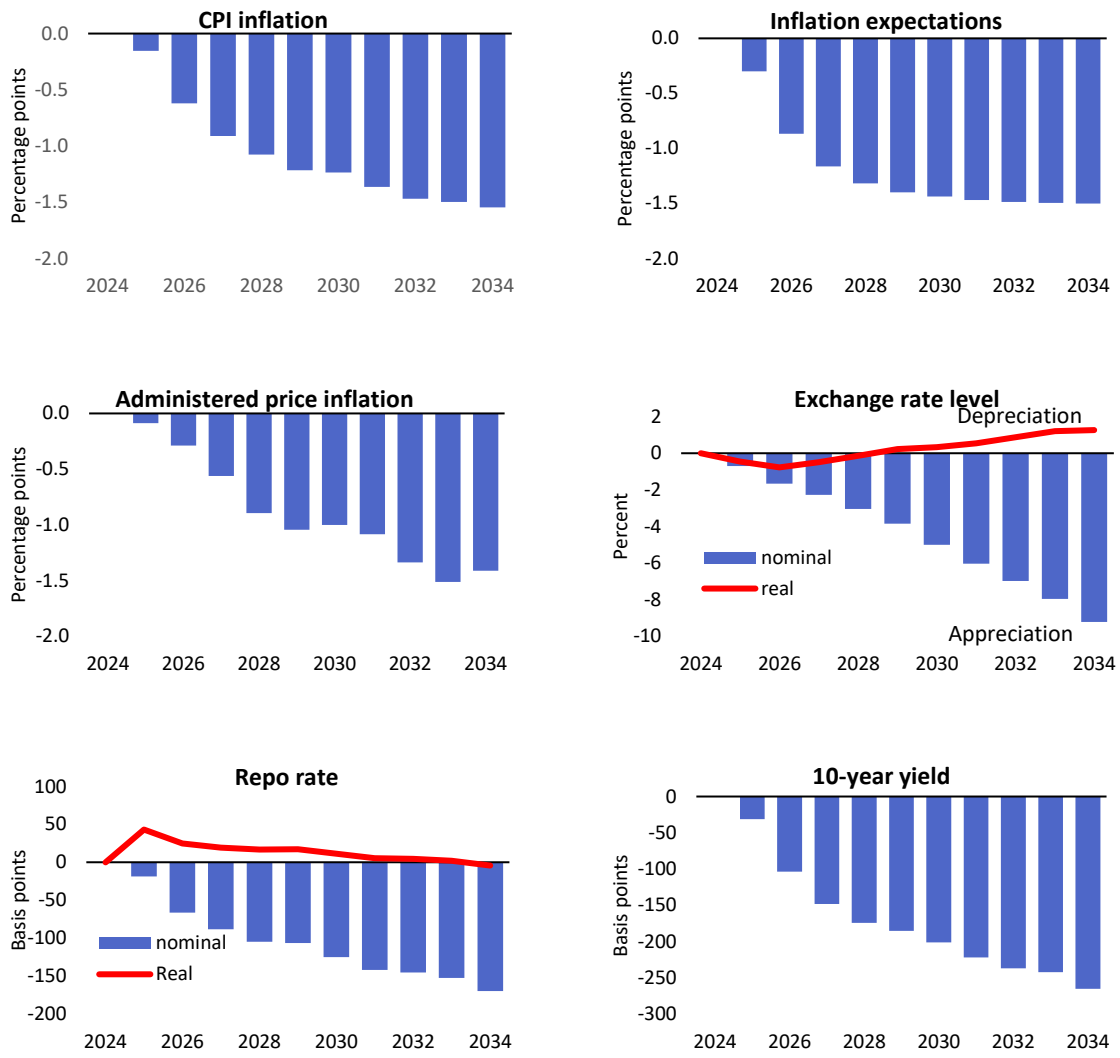
[18] The model, as described by Ehlers, Pretorius, and Smal (2007) is a stylised structural error-correction model that includes a long-run equilibrium based on economic theory and historical relationships, as well as short-run dynamics that allow the economy to gravitate towards its long-run equilibrium. The core model and QPM can have meaningful differences. One key difference is that the QPM is more forward looking, with future expectations influencing behaviour and hence today's outcomes. Modelling a change in the inflation target is therefore more suited to the QPM than the core model. To address these limitations while gaining long-run insights about the macroeconomic impact of a lower inflation target, we present an adjusted version of the core model, modified to enhance the role of inflation expectations. In particular, the re-estimated

of a lower inflation target, inflation expectations decrease and the currency strengthens, pulling down on headline CPI inflation (Figure 8). Over the medium term, the real exchange rate begins to depreciate from lower domestic inflation. After declining by roughly 1 percentage point within three years, inflation expectations eventually fall by the full extent of the change in the target (i.e. 1.5 percentage points). Headline inflation declines by the same margin, albeit partly hindered by sticky administered price inflation that is slower to decline. In this modified model, the speed of disinflation is slower than the QPM, taking up to 10 years before reaching the new target. The experience of the 2017–19 period suggests that full disinflation would likely occur much faster, enhancing the long-term effects we describe below.

The core model shows that the slowdown in inflation to 3% has large real benefits for economic activity (Figure 9). Investment rises as long-term borrowing costs fall. Important benefits to the economy also accrue from better fiscal outcomes, with lower government interest payments reducing the risk premium and pulling borrowing costs down further. The economy's expanding capital stock also lifts potential output. There is a boost for private consumption, as stronger labour productivity increases real salaries and wages, and inflation falls. Although the pick-up in domestic demand fuels imports in the short term, the J-curve effect kicks in, with export volumes rising in response to the depreciated real exchange rate. The boost to investment spending and private consumption underpins sustained long-run gains for economic growth, with GDP growth rising by 0.25% after five years and around 0.4% after a decade.

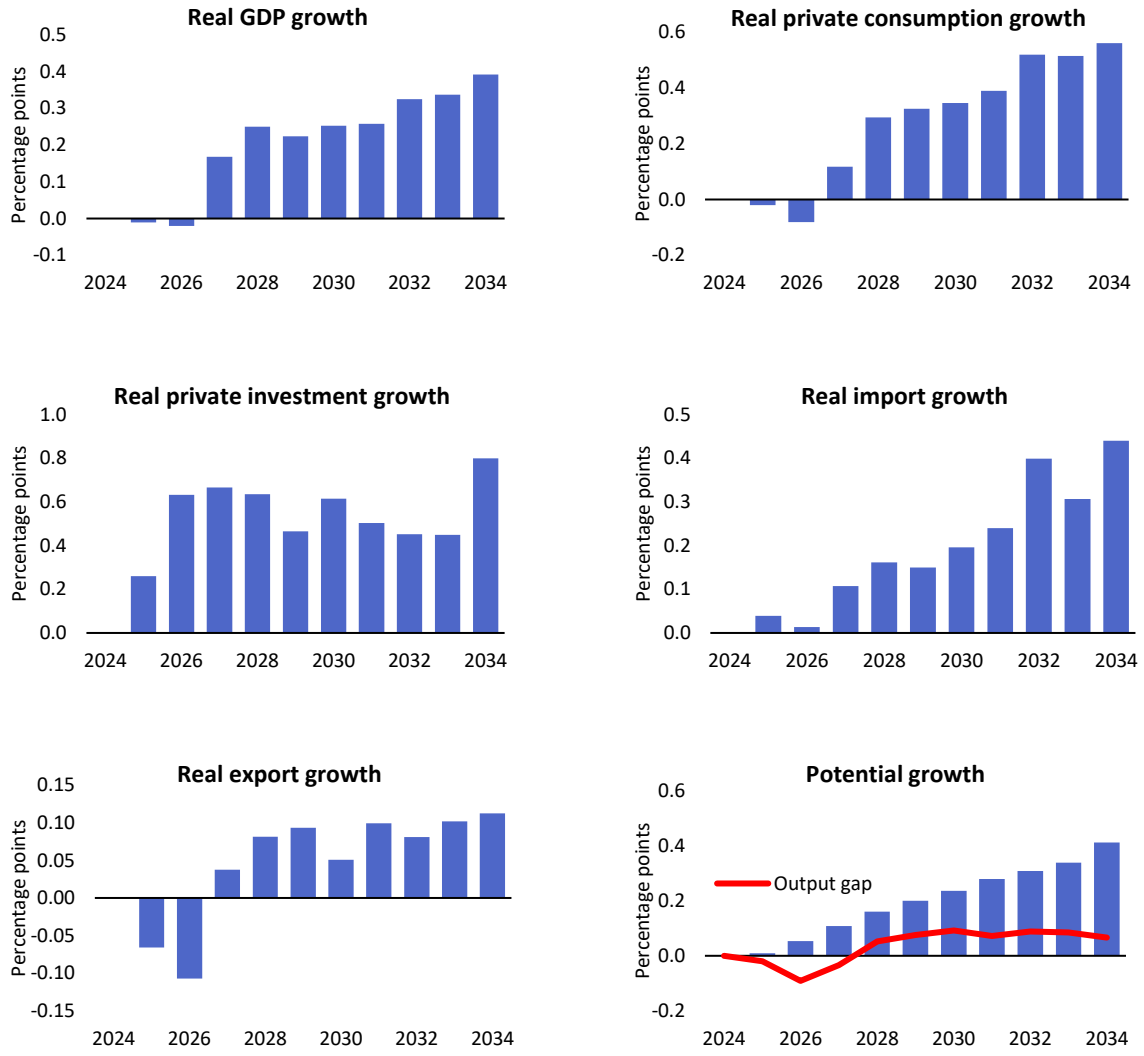
equation for inflation expectations puts a 90% weight on the inflation target versus just 20% previously. Inflation expectations are included as a key driver in several other equations, including CPI, excluding food and administered prices, food inflation, components of administered prices, producer prices, private sector salaries, private sector employment, potential growth, private investment, business confidence, the repo rate, 10-year bond yields, the risk premium (EMBI plus spread), and the real exchange rate. The details of the modified model are available in the Annex.

**Figure 8: Inflation, interest rate and exchange rate responses in the core model (changes from baseline)**




Source: SARB

**Figure 9: Real economic activity in the core model (changes from baseline)**



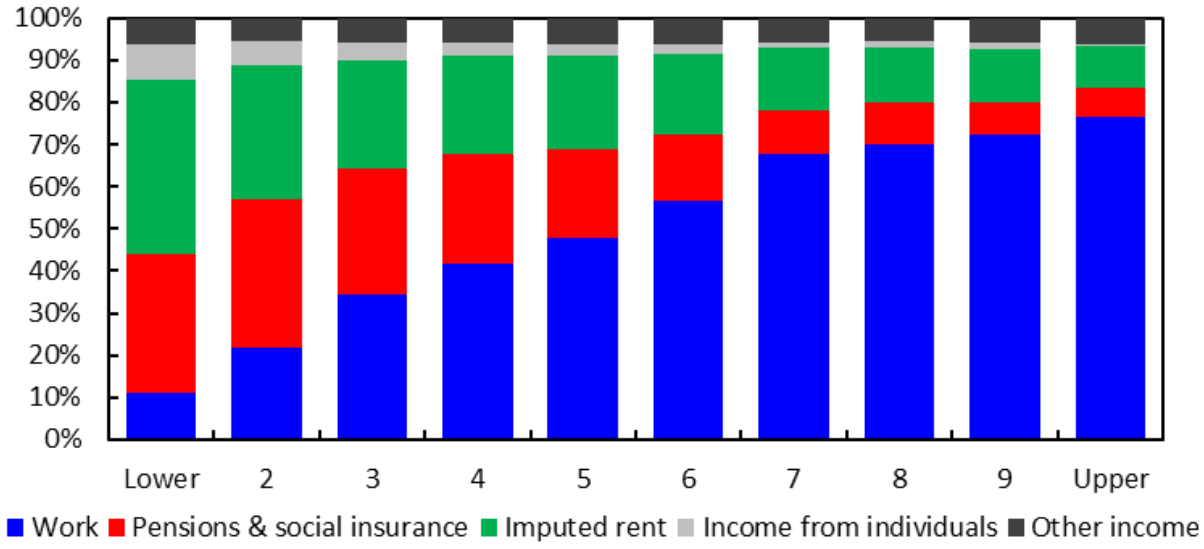

Source: SARB

## 8. Implications for poverty and inequality

The preceding results illustrate the long-term macroeconomic gains from a lower inflation target, but there are also likely to be improvements in poverty and inequality too, contrary to the general view that monetary policy tightening increases inequality. Merrino (2022) finds that countercyclical monetary policy tightening has no impact on inequality as capital income responds more to higher rates than real wage incomes do. Measuring inequality by consumption shows that tighter policy has no effect on low-income households that rely on social grants, and that they benefit from improved purchasing power as inflation falls (Miyajima 2021). Lower inflation therefore reduces both poverty and inequality. For working-class households in the formal sector, lower

inflation will increase real incomes, while any adjustment cost will only weigh on incomes temporarily.

**Figure 10: The structure of household income, by income decile, 2022/23**




Source: Income & Expenditure Survey, Stats SA

## 9. Fiscal impacts

As alluded to above, lower inflation is also critical for achieving better fiscal outcomes. The normal fiscal objection to lower inflation is that higher policy rates temporarily increase debt-service costs, that it reduces nominal tax revenue, and that it increases the real level of the public debt, requiring offsetting actions like a larger primary surplus and more economic growth to keep the debt level stable. However, these are all short-run and temporary effects that will be made insignificant by medium- and longer-term gains from lower inflation.

Perhaps more importantly, without much stronger real growth in the near term, inflation and sovereign default risk premia will continue to weaken fiscal metrics and rapidly worsen real financial resources, exacerbating the crowding-out effects that are already evident in debt-service costs, which currently absorb one fifth of tax revenues and more than 5% of GDP. On its own, these fiscal pressures keep borrowing costs high across the economy for all economic agents and result in elevated sovereign risk and currency weakness, in turn feeding inflation (Arslanalp and Eichengreen 2023).

South Africa's fiscal deterioration shows in the government debt ratio, which has tripled over the past 15 years to more than 75% of GDP, already passing a level that might be ameliorated by fine-tuning efforts to eke out real growth. Instead, the public debt needs a more robust reset that cannot be achieved without better macroeconomic policy coordination grounded in lower inflation and a serious effort to reduce the price paid for borrowing by the public sector. A macroeconomic critical case for a lower inflation target therefore rests on how disinflation and permanently lower inflation might affect fiscal conditions.

Honohan and Orphanides (2022) identify three channels by which a lower inflation target affects the fiscus. The first one is via lower inflation to stronger economic growth, which increases tax revenue and reduces credit/default premiums.[19] The second channel operates via the impact on nominal interest rate premia and debt-service costs, which we estimate and discuss in more detail below. The last channel operates via inflation expectations. Under a higher inflation target, whenever actual inflation is below expectations, the real cost of debt increases. When the inflation target is low, these real surprises are avoided.[20]

In our modelling, lower debt-service costs are the critical transmission channel for fiscal gains, with future lower inflation leading to a decline in government borrowing rates, as financial market participants and lenders discount the long-term benefits of lower inflation on the nominal yields of government securities.

In the QPM these effects are estimated as follows:

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19 Higher inflation rates significantly erode the volume and value of taxation in real terms. This is exacerbated if there are long lags in the tax collection process. See Tanzi (1977) for further details on the Olivera-Tanzi effect. Another notable paper on the relationship between inflation and taxation is Feldstein (1997), who finds significant deadweight losses and distortions caused by higher inflation, increasing the effective tax rates. Under low and stable inflation, fiscal policy creates fewer distortions or adverse distributional effects through tax policy.

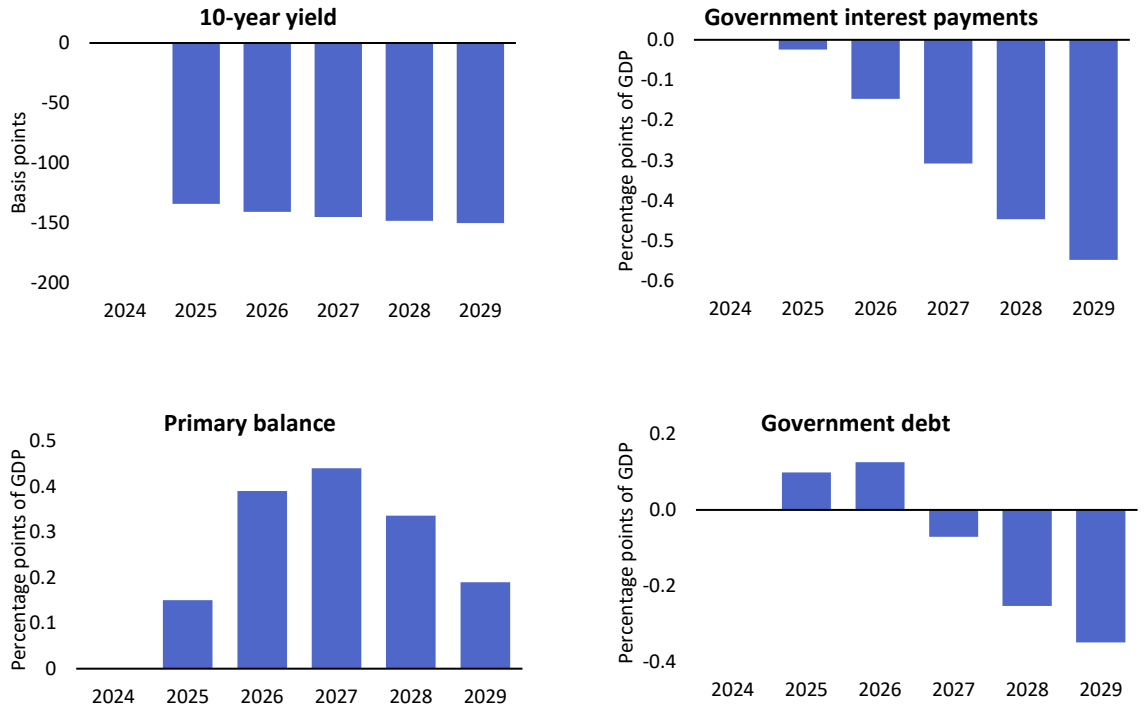
20 The first and third channels are difficult to estimate as they are conditional. Instead, we estimate the impact of a lower inflation target on fiscal balances to try to capture the short-term costs for economic agents with semi-fixed debt-service costs and high debt levels. It is important to emphasise, however, that over time, as interest rates fall with inflation and the debt stock gets renewed, the lower rates will generate permanent fiscal gains. Such gains put shorter-term costs in context.

$$yield_t^{10y} = \frac{1}{40} E_t \sum_{n=1}^{40} \left(rr_{t+n-1} + \pi_{t+n-1}^{cpi}\right) + tp_t^{10y} \quad (4)$$

where $yield_t^{10y}$ is the yield on 10-year government bonds, $rr_t$ is the real interest rate and $tp_t^{10y}$ is the term premium on 10-year bonds. $\frac{1}{40} E_t \Sigma_{n=1}^{40}$ is the expectation of average real interest rates and inflation over the next 40 quarters (i.e. 10 years).

With expectations of inflation falling, the resulting cheaper borrowing rates reduce government's interest payment burden on outstanding debt and help to generate a faster improvement in the main budget balance that determines the government's borrowing requirement and financing needs. Although government debt as a ratio to GDP briefly increases, as slower nominal GDP growth affects the ratio's denominator, debt ultimately falls, primarily from the marked decline in interest payments.

**Figure 11: QPM fiscal responses resulting from a 3% inflation target (changes from baseline)**

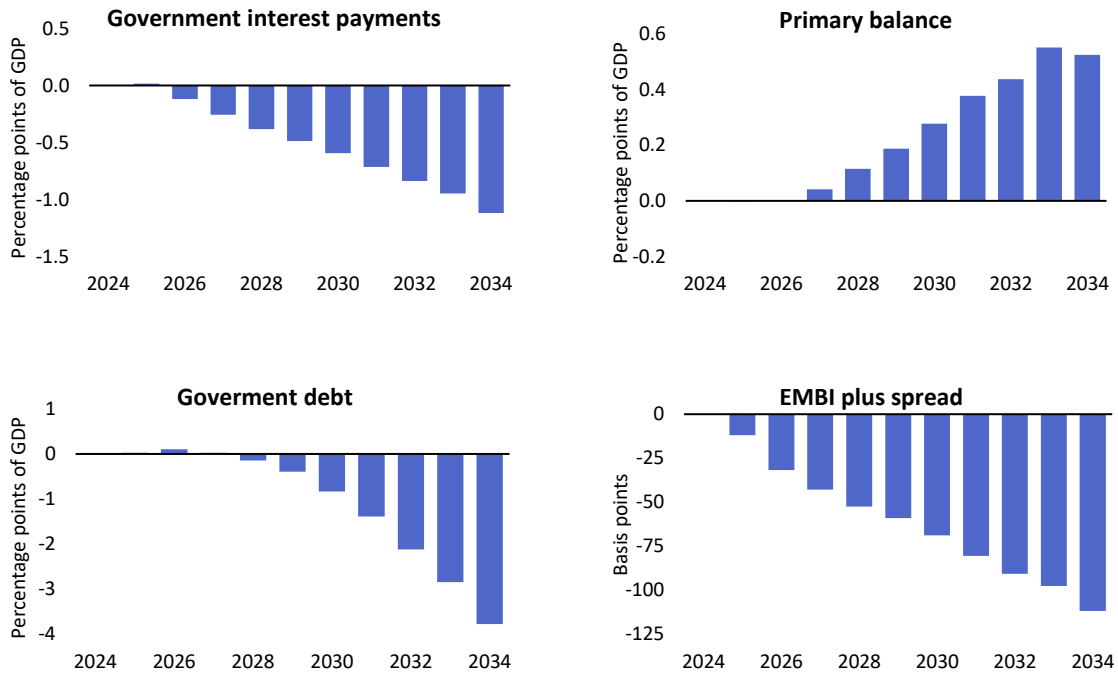



Source: SARB

Over time, as improved fiscal metrics and a lower debt profile increase the sustainability of the fiscal position, the country risk premium falls again, reinforcing the downward shift

in borrowing costs. We model these long-term gains through the core model, with fiscal dynamics also benefiting from primary surpluses as a result of stronger economic activity, improved tax revenue growth, and subdued government expenditure from key components such as wages and social grants that are indexed to lower inflation. The greater fiscal space resulting from lower inflation and increased economic growth would potentially allow increased government spending.

**Figure 12: Fiscal metrics in the core model (changes from baseline)**




Source: SARB

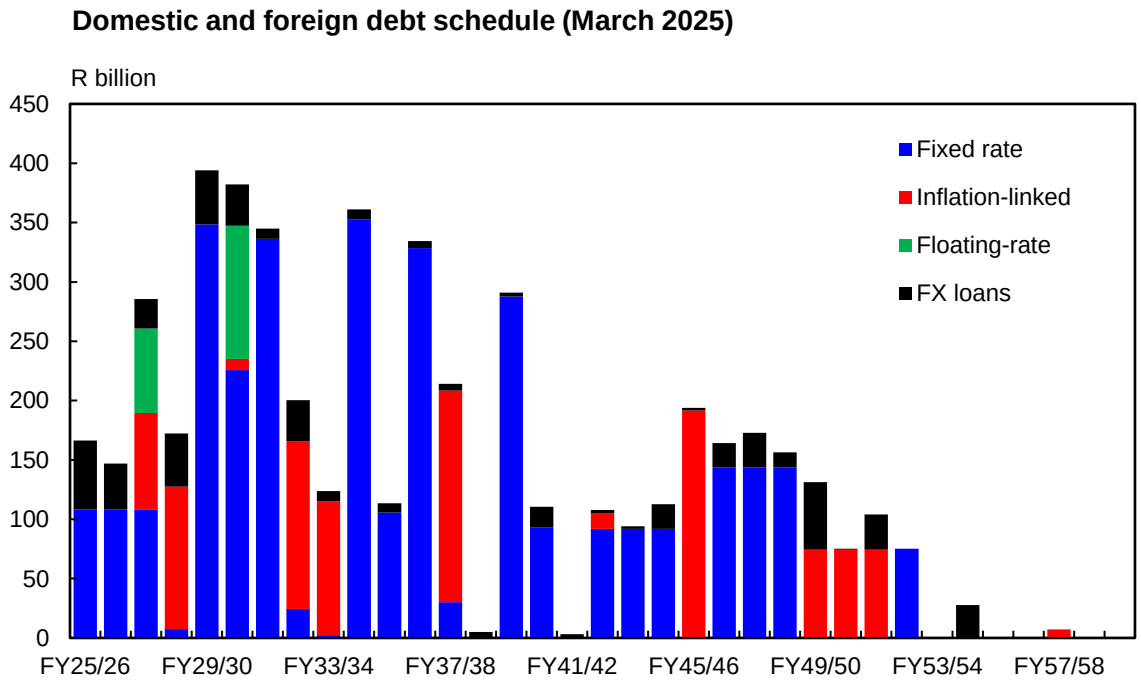
The prospective fiscal gains from a lower inflation target come at a time when the government faces significant refinancing demands and borrowing costs have risen in response to persistent fiscal pressures and the deteriorating debt dynamic. Over the next decade, about half of the government's long-term domestic debt (R2.2 trillion) and foreign currency debt (R340 billion) is set to mature (Figure 13),[21] and with marginal

[21] This figure is likely to rise further as the government's borrowing strategy uses a variety of shorter-dated debt instruments. Over the past five years, almost one third of fixed-rate bond issuance and inflation-linked borrowing, and both floating rate notes that have been issued, have had a duration of less than 10 years.

borrowing costs higher, this is set to impose sustained funding pressure on the government and keep debt-service costs elevated.[22]

Lowering the inflation target presents an opportunity to relieve some of this pressure and realise significant fiscal savings as new debt issuance benefits from a stronger rand, reduced interest rates and lower inflation in the medium term.[23] This provides the foundation for a decline in nominal yields, while declining inflation risks and improved fiscal metrics support a fall in real yields that gives additional impetus to the decline in debt-service costs.

**Figure 13: Maturity profile of South Africa's government debt**




Source: National Treasury, SARB

22 At current borrowing rates, the large redemption schedule and sustained issuance in the long-end of the yield curve implies that the fiscal cost of decreasing trend inflation will increase in the future. Over time, it will become increasingly difficult to quickly reduce the target as bond redemptions lock in high current inflation expectations and sovereign default risk premia.

23 The Fiscal Risk Statement published with the 2024 *Medium Term Budget Policy Statement* shows high sensitivity of government debt and debt-service costs to inflation, short-term rates and the exchange rate. For example, a R1 depreciation of the rand against the US dollar results in a R29.6 billion increase in gross loan debt, while a 1 percentage point fall in short- and long-term interest rates would save R7 billion in debt-service costs.

Using a simple framework for analysing the evolution of debt-service costs and debt dynamics after the adoption of a lower inflation target, we find that while initial fiscal savings from lower yields on debt-service costs are likely to be relatively small, over time these savings will gather momentum and grow significantly (Figure 14).[24] In the baseline, debt-service costs as a percentage of GDP decline from 5.4% in 2024/25 to 5.3% in 2029/30 and 4.8% in 2034/35. This compares to debt-service costs that fall to 5.1% of GDP in 2029/30 and 4.2% of GDP in 2034/35 as the move to a lower inflation target reduces inflation, lowers short-term interest rates, strengthens the currency and supports a decline in real yields, conferring significant savings.[25] The short-term costs to the fiscal position are small, as shown by the path for debt-service costs and debt accumulation, although a slower pace of nominal GDP initially results in a more modest pace of fiscal consolidation and delays the decline in the debt-to-GDP ratio. We estimate that about R130 billion of nominal fiscal savings would realise in the first five years, rising to R600 billion by the end of the decade, reflecting the compounding effect of achieving lower borrowing costs.

Almost 40% of historical government debt will benefit nearly instantaneously from lower inflation expectations.[26] Bigger fiscal savings could be achieved with a shift in the government's borrowing strategy to focus on more short-term debt and inflation-linked bonds. Historically, the government has relied on domestic long-term loans to meet its financing needs, with long-term domestic borrowing concentrated on fixed rate instruments.

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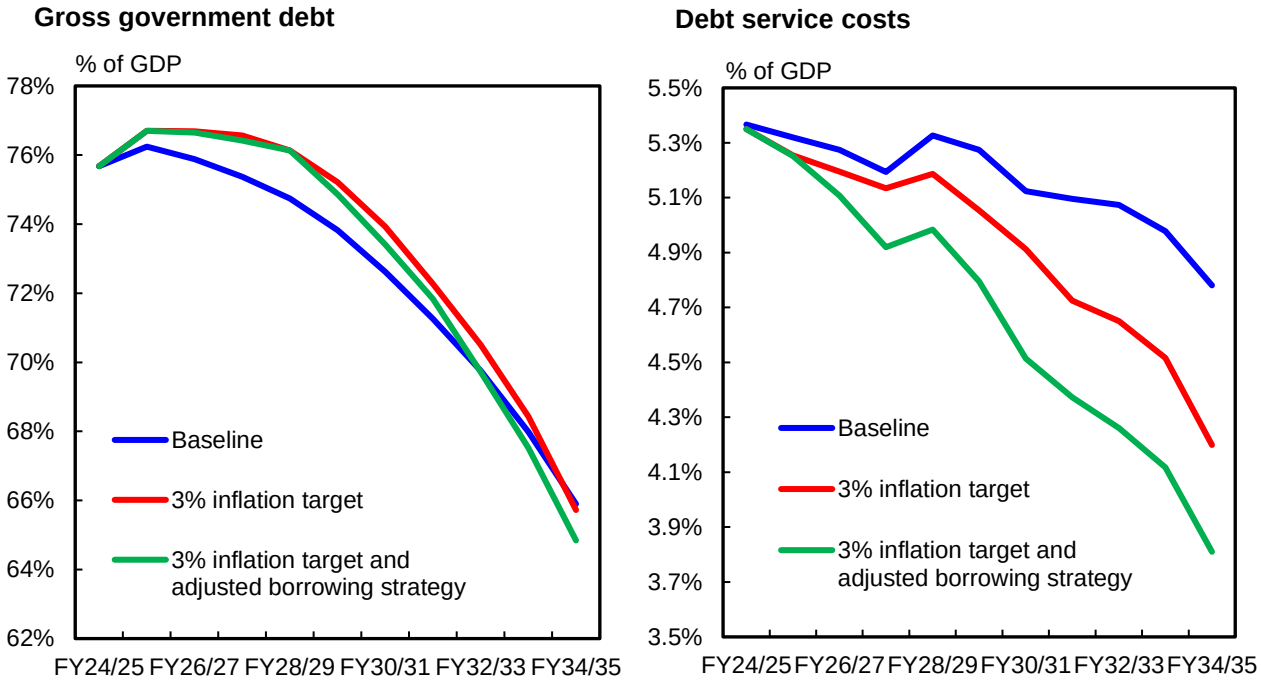
24 In this framework, the government's annual borrowing requirement is a function of the budget deficit and redemptions of domestic and foreign currency loans, adjusting for budgeted Eskom debt relief and drawdowns from the Gold and Foreign Exchange Contingency Reserve Account in 2025/26 and 2026/27. Financing is consistent with the government's recent funding behaviour, with foreign currency bonds covering foreign currency commitments, short-term domestic loans equal to 8% of total borrowing, and domestic long-term loans accounting for the remainder. For simplicity, we assume that all new domestic long-term debt and foreign debt is more than 10 years in duration. We estimate that the government's overall borrowing requirement could average about R550 billion per year over the next decade (equal to more than 5% of GDP annually), with a risk that funding pressures are even bigger if the government is unable to deliver sustained fiscal consolidation.

25 The fall in short-term interest rates, decline in long-term government bond yields, and less depreciated exchange rate are consistent with the estimates from the QPM and core model.

26 This includes foreign currency denominated debt which will benefit from a stronger rand, inflation-linked bonds and short-term debt.

**Figure 14: Estimating fiscal savings from a lower inflation target**




Source: SARB estimates

If more public debt is issued in short-term Treasury bills and inflation-linked bonds, whose nominal and real rates immediately decrease as inflation falls, then there are major savings on debt-service costs, even in the event of a worsening growth cost due to disinflation. One reason for this is that both inflation and the debt stock are high. A reduction in inflation when debt and inflation is already low will have much smaller effects on debt-service costs than in South Africa's present condition.

We estimate that over the course of a decade, a 3% inflation target in tandem with a borrowing strategy that emphasises short-term and inflation-linked borrowing could generate almost R870 billion in nominal cumulative savings on debt-service costs, rapidly reducing interest payments as a share of government revenue and GDP.[27] Debt-service costs would decline to about 4.8% of GDP by 2029/30 and 3.8% of GDP by 2034/35, absorbing a diminishing share of government revenue.

[27] In this scenario, about half of domestic borrowing is through short-term Treasury bills and inflation-linked bonds, compared with 22% in the baseline where there is an ongoing emphasis on fixed rate bonds, consistent with the current borrowing strategy.

If the debt stock is not changed, and the same proportion of long-term fixed rate debt is issued, then the debt level rises in the short term and it takes time for the lower long-term rates to feed into the debt stock and on to debt-service costs. Not moving sooner opens up the risk that the space that exists now to issue debt in the short-end of the yield curve will disappear as inflation stresses persist. This implies that bond switch auctions could be used to shift into shorter maturities more quickly.[28] From a debt strategy perspective, long-term debt issuance should be ramped up again once inflation expectations settle at a lower level.[29]

These savings would partly reflect the slower pace of debt accumulation related to the revaluation of inflation-linked and foreign currency debt for inflation and exchange rate changes. We estimate that inflation at 3%, rather than 4.5%, would result in a debt stock that is R150 billion smaller over a period of 10 years, while a slower pace of exchange rate depreciation would reduce the debt stock by about R170 billion in rand terms over a decade. A decline in real yields could help mitigate the discount that government pays from repeatedly issuing bonds below their par value, which has added R320 billion to the debt stock over the past five years (about 1% of GDP annually).

The scale of improvements in debt and debt-service costs could be even larger if the cost to the economy resulting from policy-induced disinflation – known as the sacrifice ratio – is smaller.

The next section provides a detailed analysis of the sacrifice ratio, but three recent estimates for South Africa provide some gauge of the sensitivity of fiscal metrics. For example, the IMF (2025) and Burger (2025) estimate the recent sacrifice ratio at 0.3%

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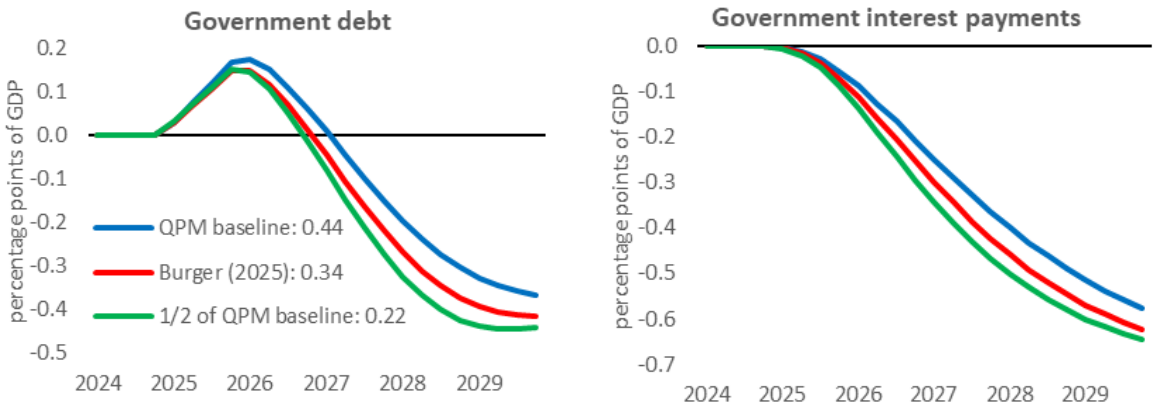
28 Doing this would also be better than asking the SARB to issue short-term reserves liabilities as part of the current discussion about the Gold and Foreign Exchange Contingency Reserve Account, not least by maintaining demand for short-term treasuries and that particular market.

29 One may argue that temporarily shortening the average maturity in South Africa's debt profile could raise the overall riskiness of South African debt. After all, the current structure has been designed around various risk management thresholds in order to reduce roll-over risk. However, it is worth noting that, at 10.9 years, South Africa's average term to maturity is in fact among the highest among middle-income countries, with a more typical profile closer to 7–8 years. The additional risk of a shorter maturity profile is often more than offset by the benefits of having lower inflation targets.

and 0.34% respectively – compared to 0.44% after two years in the QPM. Kima and Lesame (2025), in contrast, find a negative sacrifice ratio, which means that lowering the target has no short-run economic costs but rather raises output.[30]

Figure 15 compares the fiscal implications of using the QPM sacrifice ratio, Burger's 0.34% estimate and a 0.22% figure (half of the QPM's output sacrifice), illustrating that the decline in both the debt ratio and interest payments-to-GDP could be greater by up to one fifth. Fiscal savings would be even more pronounced under a negative sacrifice ratio, such as that estimated by Kima and Lesame.

**Figure 15: Public debt and interest payments under various sacrifice ratios**




Source: SARB

## 10. Disinflation costs – what sacrifice?

The preceding discussion has provided some sense of the short- and long-run net benefits of lower inflation. A focus on the short-term cost of disinflation commonly leads to the conclusion that disinflation costs are worth bearing if inflation is 'high', but that there are fewer benefits if inflation is 'moderate'.[31] South Africa's experience, however, demonstrates the cost of a higher inflation rate that results in a lower growth rate

30 The IMF (2025) estimate of the sacrifice ratio reflects the baseline simulation where the lower target also results in a decline in sovereign risk premia.

31 For instance, Khan and Senhadji (2001) suggest that the relationship between inflation and growth is positive between an inflation rate of 1–3% for advanced economies and 7–11% for developing economies, but negative for higher rates of inflation. However, using South African data and the same approach as Khan and Senhadji, Steenkamp (2019) finds that the relationship is entirely negative over the 1960Q1 to 2018Q2 estimation period – irrespective of the level of inflation.

(Fedderke and Liu 2018; Viegi and Dadam 2020; Loewald, Makrelov and Pirozhkova 2022). It is for this reason that the estimated output costs from disinflation, discussed in this section, are very low or even negative – that is, lower inflation raises real growth rates.

There is a large body of literature on the sacrifice ratio, which measures the cumulative output losses during the disinflation period divided by the overall fall in the inflation rate. Table 1 presents sacrifice ratios using the trend approach of Ball (1995). The last period (2016–2019) is associated with a negative sacrifice ratio, indicating no disinflationary costs.

**Table 1: Sacrifice ratio in disinflation episodes using the approach of Ball (1995) and quarterly data[32]**

| Episode | Length (quarters) | Initial inflation (%) | Decline in inflation (% pts) | Cumulative sacrifice ratio | Sacrifice ratio per quarter |
|---|---|---|---|---|---|
| 1981Q2–1983Q1 | 7 | 15.6 | 3.63 | 4.38 | 0.6 |
| 1986Q1–1988Q4 | 11 | 18.0 | 4.19 | -1.72 | -0.2 |
| 1991Q1–2000Q1 | 36 | 15.2 | 10.4 | 12.04 | 0.3 |
| 2001Q4–2004Q2 | 10 | 8.3 | 6.43 | 1.41 | 0.1 |
| 2008Q2–2010Q3 | 9 | 9.4 | 4.64 | 4.78 | 0.5 |
| 2016Q2–2019Q2 | 12 | 6.0 | 2.45 | -1.97 | -0.2[33] |

Source: SARB Economic Research Department calculations

The two recent periods that reflect monetary policy actions are the initial period when inflation targeting was introduced (2001 to 2004) and the most recent period from 2016. In the first case, the sacrifice ratio was 1.41, which includes other contributors to slower growth and is still below estimates for other countries that introduced inflation targeting around the same time. In the second period, the ratio is negative, and hence disinflation coincided with gains to output growth, possibly associated with improved central bank credibility, more forward-looking expectations and therefore a very low (even negative) sacrifice ratio. A major challenge with the Ball (1995) approach is that it does not distinguish between disinflationary episodes due to active monetary policy actions or

32 Using annual numbers significantly reduces the sacrifice ratio. For example, the ratio over the period 2008 to 2010 is 0.9.

33 The negative sacrifice ratio here is caused by trend growth that was below actual growth even though actual growth was decelerating.

other factors like positive supply shocks, shifts in consumption preferences or demographic factors.

Loewald, Makrelov and Pirozhkova (2022) calculated the sacrifice ratio using a structural vector autoregressive (SVAR) approach proposed by Cecchetti and Rich (2001). The results show a sacrifice ratio of 0.5 in the post-apartheid period.[34] This implies that a permanent lowering of inflation by 1 percentage point is associated with a cumulative loss of output following the start of a disinflation episode of 0.5% of GDP, on average. The estimates beyond the first year are insignificant, indicating that there are very small short-run costs. This result is very similar to the estimates by the IMF (2025) and Burger (2025) noted in the previous section. Yet another approach relies on Phillips curve estimates, which suggest that the sacrifice ratio has declined as improved policy communications increased the credibility of monetary policy, and as a result, inflation has moderated because expectations have been better managed and guided, rather than due to any output loss.[35] Movements in inflation often are relative price changes, and therefore result in capital and labour reallocation rather than a larger output gap (Reis 2021).

The results from the QPM simulation suggest that the sacrifice ratio associated with lowering the inflation target is around 0.4% of GDP after two years, rising to 0.5% at the five-year horizon. The sacrifice ratio from the core model is lower still: its results suggests that there are very few costs after five years, while the longer-term growth benefits more than offset initial output losses (Figure 16).

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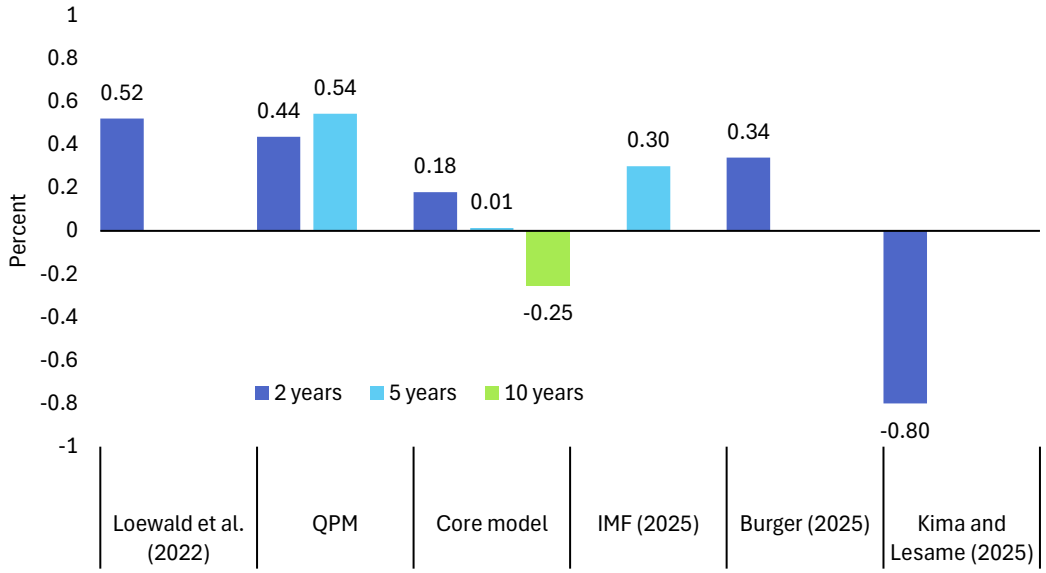
34 Using the same approach, Gereziher and Nuru (2021) find that the average sacrifice ratio over the period from 1998 to 2019 is 0.031, with a minimum value of zero and maximum value of 0.23.

35 The increased role of expectations in guiding economic activity is reflected in recent estimates of the Phillips curve. See, for example, Botha, Kuhn and Steenkamp (2020).

**Figure 16: The cost of disinflation: a comparison of sacrifice ratio estimates**




Source: Burger (2025), Kima and Lesame (2025), IMF (2025) and SARB

Estimates using the trend approach are small but in line with recent sacrifice ratios calculated for other countries. Table 2 provides the sacrifice ratios for a set of countries calculated by Mazumder (2014). These results also show that sacrifice ratios were generally larger across countries in the 1980s and 1990s, when many central banks introduced frameworks to reduce trend inflation and central bank credibility was still low.

**Table 2: Sacrifice ratios for a selected set of countries (using the trend approach of Ball (1995))**

| Country | Start of episode | Length (years) | Sacrifice ratio |
|---|---|---|---|
| Australia | 1981 | 5 | 2.43 |
| | 1995 | 3 | 0.17 |
| Brazil | 2002 | 6 | 1.72 |
| Germany | 1981 | 7 | 2.14 |
| | 1993 | 7 | 0.91 |
| India | 1991 | 4 | 1.75 |
| | 1997 | 6 | 0.41 |
| Ireland | 1990 | 5 | 3.32 |
| | 2001 | 4 | -0.65 |
| New Zealand | 1986 | 8 | 2.44 |
| | 1995 | 4 | 1.06 |
| Lesotho | 1992 | 4 | 2.55 |
| | 2003 | 3 | 0.43 |
| Namibia | 1988 | 4 | 1.21 |
| | 2004 | 4 | -0.27 |
| Sri Lanka | 2002 | 2 | -0.14 |

Source: Mazumder (2014)

The ratio calculated using the SVAR approach is in line with those generated for other emerging market countries that use inflation targeting. Table 3 lists the estimates produced by Torres (2005), with the results indicating that inflation-targeting countries have lower sacrifice ratios than those that do not target inflation.

**Table 3: Sacrifice ratios for a selected set of countries (using the SVAR approach)**

| | Quarters | | | | |
|---|---|---|---|---|---|
| | 4 | 8 | 12 | 16 | 20 |
| Brazil | -0.044 | -0.022 | -0.019 | -0.021 | -0.022 |
| Chile | -0.269 | -0.181 | -0.047 | -0.229 | -0.103 |
| Israel | -0.015 | -0.083 | -0.205 | -0.246 | -0.294 |
| Korea | 0.378 | 0.409 | 0.353 | 0.361 | 0.361 |
| Mexico | 0.364 | 0.515 | 0.351 | 0.433 | 0.381 |
| South Africa | 1.498 | 0.485 | 2.024 | 0.757 | 1.479 |

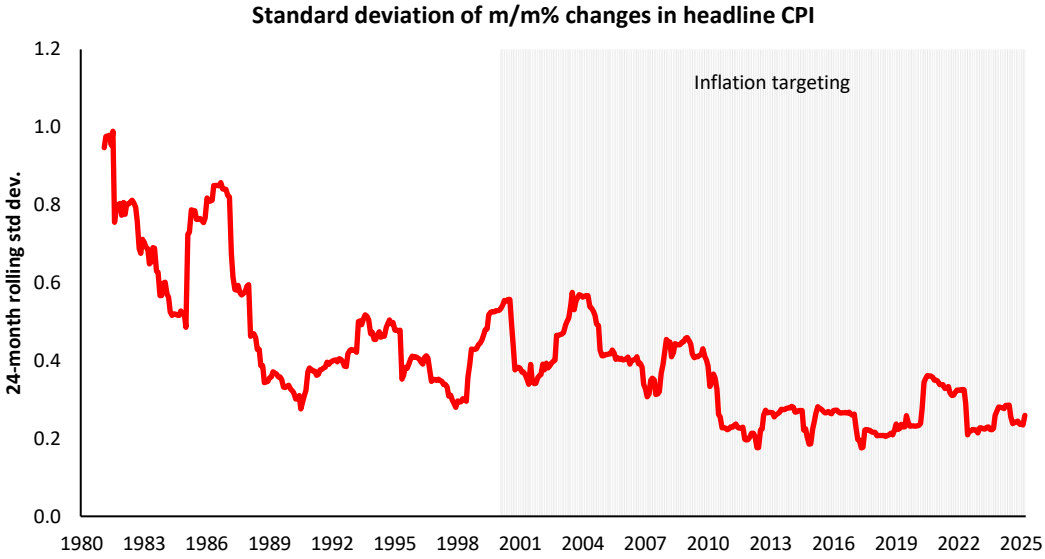
Source: Torres (2005)

Sticky inflation expectations derive from the various drivers of price inertia, most commonly wage and price-setting practices – in South Africa's case, primarily nominal wage determination and administrative prices. The more backward-looking or adaptive these practices are, the slower the disinflationary process and the more economic cost is imposed. This cost materialises because adaptive price setters require inflation to be reduced through policy actions before they begin to reduce the pressure they themselves exert through price and wage decisions. In contrast, forward-looking expectations reduce that inertia and the trade-off between inflation and output, with high credibility lowering it to zero (Belke and Böing 2014). Finally, a weaker central bank commitment to keeping inflation low increases inertia and the size of the sacrifice ratio.

The credibility of the central bank's inflation forecast and policy commitment therefore can serve as a powerful tool for lowering inflation and reducing the economic costs of disinflation. A credible central bank has this effect even in the presence of wage and price rigidities. In the model developed by Ball (1995), a fully credible central bank can affect inflation instantly, as firms reduce their inflation expectations and start renewing contracts that embed lower inflation projections (Chadha, Masson and Meredith 1992). These technical points are backed up by the lived experiences of many economies, and help to account for the widespread adoption and subsequent reduction of inflation targets.

In summary, greater central bank credibility, along with more forward-looking inflation expectations, increases the impact of central bank communication on inflation and inflation inertia, reducing the sacrifice ratio.[36] Recent South African literature shows that central bank credibility and communication have improved and inflation expectations are more focused on central bank forecasts.[37] Pass-through of inflation from import prices and/or exchange rate depreciation has also moderated in recent years, further indicating a higher level of policy credibility.[38] These credibility gains are reflected in South Africa's most recent inflationary experience, where lower inflation expectations resulted in a smaller surge, and lower inflation volatility, than has historically been the case (Figure 17).

**Figure 17: Inflation volatility remained low during the recent inflation surge**




Source: Stats SA and SARB

The discussion above shows that shaping inflation expectations is important to the policy framework, primarily through the degree to which the expectations formation process is forward-looking or backward-looking. The determinants of expectations

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36 See Eggertsson and Woodford (2003) for a discussion on the relationship between communication, inflation expectations and actual inflation.

37 See Coco and Viegi (2020) and Reid and Siklos (2020). See Miyajima and Yetman (2018) and Reid and Siklos (2021).

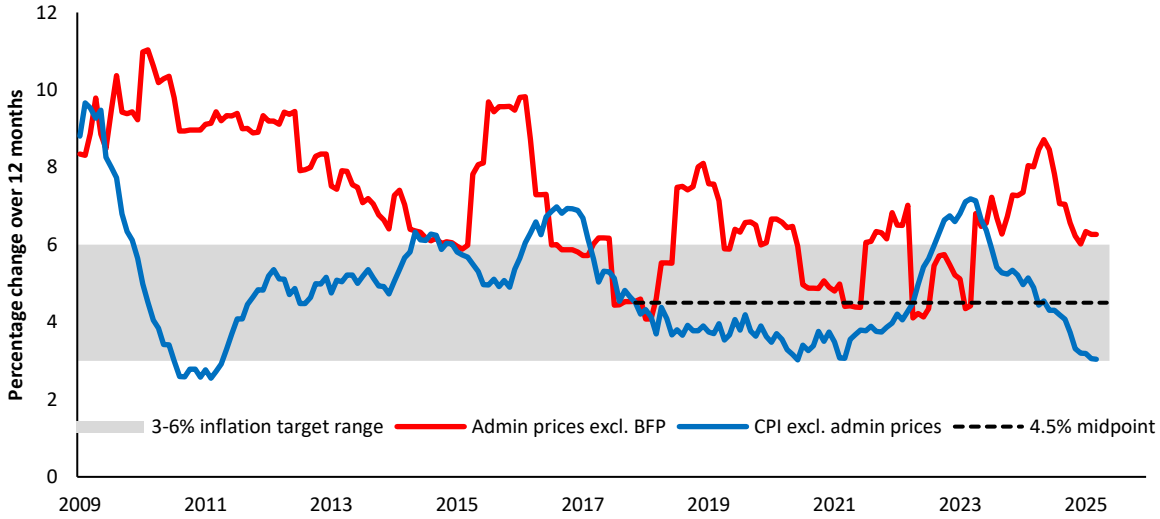
38 See Kabundi and Mlachila (2018).

formation therefore also matter, and here, the primary areas of sticky prices in South Africa have been in wages and in administered prices. Wages have become less sticky in recent years, and it would be useful for policy going forward to prevent a resurgence of backward-driven rigidity in the labour market. We discuss the role of administered prices in trend inflation next.

## 11. Administrative price inflation

One of the most important drivers of inflation inertia in South Africa is administrative price inflation, which has a strong impact on expectations formation (Figure 18). The prices of goods that people purchase often (such as groceries), or that receive a lot of publicity (such as oil prices), have a larger impact on expectation formation than others (Coibion and Gorodnichenko 2015). And, because of its insensitivity to economic conditions, any given inflation target requires more flexibility from non-public sector prices and increases uncertainty there. For example, De Wet (2021) argues that a 3% inflation target and administrative price inflation of 6% require non-administrative prices to increase by only 2.4% to achieve the new target, given their weightings in the headline basket.[39]

**Figure 18: Administered and consumer price inflation**




Note: BFP: basic fuel price

Source: Stats SA and SARB

[39] Using the latest weights in the headline inflation basket, administrative price inflation of 6% requires non-administrative prices to increase by only 2.6% to achieve a 3% inflation target.

However, such static arguments neglect the role that headline inflation plays in determining administrative prices.[40] In addition, a wide range of input costs, both domestic and imported, feed into the various regulatory approaches to determine administrative prices.[41] In short, a decline in headline inflation lowers administrative price inflation – and this response can be quick if the signals from headline to administered prices are clear.[42] If they are not, then supply costs and administered prices can diverge, as found in a series of recent studies for the SARB.[43] It is also clear that wage inflation plays a key role in administered price formation. Wage-related costs, which constitute about 28% of total municipal operating expenditure, have increased significantly faster than headline inflation over the past 10 years.[44]

The relationship between lower inflation and administered prices should be strengthened with administrative price reforms to improve efficiency in regulated sectors, reduce inflation inertia and ensure that administered prices under most conditions align with the inflation target.[45] Regulatory frameworks should clearly articulate the costs of supply and incentivise efficient consumption. This can help enhance efficiencies in regulated sectors (including municipalities) and support economic activity. Lower headline inflation would also reinforce moderation in electricity pricing as Eskom's own profitability improves with lower debt-service costs.

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40 This is a particularly important channel for administrative price components that are highly sensitive to exchange rate or/and wage growth changes, such as petrol prices and municipal tariffs.

41 See for example Storer and Teljeur (2003) for a review of administrative price setting in South Africa.

42 Analysis by the Economic Research Department using the Granger Causality test, OLS regression and panel regressions confirms the two-way relationship between headline inflation and administrative price inflation. The contemporaneous or lagged headline CPI inflation is found to have a significant positive effect on inflation of prices for electricity, education, communication, tax rates, university boarding fees, TV licences, motor licences and paraffin.

43 See Venter (2023), Ismail and Wood (2023a, 2023b) and Walsh (2023a, 2023b). All this research was commissioned by the SARB.

44 Water tariffs and property rates are set as part of municipal budget processes, which focus on overall revenue generation.

45 Generally, there is much that can be done to improve administrative price setting. For example, Heinrich and Crompton (2020) and Crompton et al. (2020) illustrate how changes to regulatory mechanisms for setting petrol prices can reduce the overall price level and volatility and support economic activity.

## 12. An optimal transition to permanent economic gains

The disinflation achieved over the 2016 to 2019 period was achieved by signalling the SARB's preference for a point target of 4.5%, a stronger and more stable currency and fall in oil prices, a sharp secular moderation in housing-related services inflation, and an endogenous rise in the real policy rate as inflation moderated.[46] The fall in inflation in recent years did not require substantial tightening of monetary policy, and the output gap remained largely unchanged.[47] In this period, the sacrifice ratio was around zero (see Table 3 above).

One reason for this low output loss may be simply that inflation expectations were adjusting in a relatively forward-looking manner, guided by clear communication by the SARB about its intention to move inflation towards 4.5%. This implied little or no surprise disinflationary shock to economic agents and their decisions. In short, a highly credible commitment to disinflate quickly should have very little real economic impact. Going back to Kydland and Prescott (1977), the economics literature emphasises that the credibility of monetary policy determines how fast inflation expectations adjust and therefore how large the costs associated with disinflation are. If a central bank's credibility is strong and its objective is clear, faster adjustment will occur with fewer output losses.[48]

The current circumstances, with inflation having moderated towards the lower end of the target range, implies that lower inflation expectations will help reduce transition costs. Announcing a new target would help weaken the link between food and energy prices to core inflation and build on additional steps in the public space that would moderate those spillovers.

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46 See Honohan and Orphanides (2022).

47 The output gap shifted from about -0.38 in 2016Q2 (and CPI averaged 6.2%) to -0.41 by 2019Q2 (CPI at 4.5%).

48 Credibility suggests that the SARB is viewed as able and willing to achieve its objectives. It is, however, also important to recognise that when the target is changing there will be a need to ensure that this new goal is communicated to and understood by the public. This will require deliberate efforts to communicate with all societal groups.

These gains could be enhanced if there are concrete steps towards ensuring administered prices that are consistent with the inflation target, with the fiscal authorities managing a public accountability framework that reports on alignment and deviations, and the reasons for them. If fiscal policy delivers real consolidation, it will generate gains for long-term rates, the currency, inflation and short-term rates, and its disinflationary effects will be a tailwind to monetary policy, which may not need to adjust much, if at all, to bring inflation down to the new target. Larger macro-fiscal gains would accrue if the government avoids locking in high interest costs for the public debt that will be sold and rolled over in the coming years.

Communication and credibility are the keys to ensuring this outcome. A first-best scenario sees lower inflation integrated into the fiscal framework and some administrative prices immediately, and government adjusting its bond issuance strategy over the transition period to take advantage of lower inflation over the medium term through more inflation-linked bonds and instruments with short maturity.

An alternative scenario is if the public sector fails to provide explicit support in better-controlled administered prices. In this case, administrative prices will adjust more slowly and tension with fiscal policy could generate volatility. Tensions between fiscal and monetary policy were evident in Brazil, where the inflation target was being reduced in increments of 0.25 percentage points over a period of six years from 4.5% in 2019 to 3% in 2024 and 2025, but was later abandoned. The Brazilian experience illustrates that moving very slowly can be costly as fiscal policy decisions change, the economy experiences shocks and markets do not see the move as credible (Carvalho and Nechio 2023). If implementation is drawn out, the expected costs will rise and the risk of policy reversal will increase.

## 13. Conclusion

The adjustment costs to the economy and specific agents from policy changes are almost invariably easier to perceive than the benefits and beneficiaries. This is as true of reforms to monetary policy frameworks as nearly any other reform area. There are, however, three important reasons for moving now to further reform the inflation-targeting framework.

One is that South Africa's expressed ambition to grow non-traditional exports has not been matched with appropriate policy efforts, which must centre on increasing competitiveness, investment and skills development in those areas. This will continue to be handicapped by a price level rising faster than that of trading partners, not least because it entails an unnecessarily higher cost of capital, raising the hurdle rate for and placing limits on investment.

Second, much of the total yield paid on debt, both public and private, is created by inflation itself, expected inflation rates and a real premium formed by the higher inflation rate. This has kept interest rates of the economy higher than they need to be and is embedded in the structure of the fiscus. This debt-service cost should be lowered, irrespective of any short-run cost to the fiscus as the real debt level temporarily rises, because it will generate large and permanent long-term gains for fiscal space and enable a redistribution of spending from debt service to critical social and economic needs.

With a shift in debt strategy to focus more on short-term and inflation-linked issuance, before realising long-term issuance gains from the lower borrowing rates, the pressure to use foreign currency reserves or to shift interest liabilities to the central bank balance sheet will also fall away. This has the additional benefit of avoiding medium-term currency and inflation risk and preserves the integrity of the short-term treasury market.

Third, and most importantly, high inflation weighs most heavily as a tax on poorer households, while reinforcing their exclusion from economic activity. The economic literature shows clearly and repeatedly that there is no lasting trade-off between higher inflation and jobs that can be exploited. Indeed, the evidence for South Africa clearly goes the other way – lower inflation begets stronger economic growth and more job creation. Since high inflation deepens the plight of poorer households, macroeconomic authorities can make lasting policy choices that reduce the overly high inflation rate that keeps these households from a decent standard of living and better job prospects. Other efforts should be made to make it easier to create jobs for less-skilled workers.

From an implementation standpoint, inflation expectations are the critical, forward-looking variable for policy. Anchoring them, a prerequisite for a flexible inflation target, requires a clear target as a determinant. This observation supports the case for an unambiguous point target rather than a band.

Now is a compelling time to reform South Africa's inflation-targeting framework. The inflation target should be moved from its current band to a point target. This target should be a headline consumer price inflation rate of 3%, equivalent to prevailing inflation targets in emerging market trading partners. With inflation currently at the lower end of the target range and SARB credibility high, we estimate the cost of setting the new target at around zero. As nearly all countries have found in setting inflation targets at around 3%, any temporary costs prove to be heavily outweighed by the permanent welfare gains associated with lower inflation.

## Annexures

### Modified core model equations

Key equations that have been modified for this simulation are shown below, with changes indicated in blue. All variables are in natural log form, except for interest rates and BER two-year expectations.

### 1. Inflation expectations

| Long-run equation | | | Comment |
|---|---|---|---|
| $BER\ 2yr\ expectations_t$ | = | $0.9 * target_t + 0.1 * CPI\ inflation_{t-1}$ | Stronger weight on the target as a long-run (LR) driver relative to inflation outcomes |
| | + | $LR\ residual_t^{BER\ 2yr\ expectations}$ | |
| **Short-run equation** | | | |
| $\Delta\ BER\ 2yr\ expectations_t$ | = | $-0.16 * LR\ residual_{t-1}^{BER\ 2yr\ xpectations}$ | Inflation outcomes drive short-run (SR) movements |
| | + | $0.10 * \Delta\ CPI\ inflation_t$ | |
| | + | 0.19 | |

### 2. CPI excluding food and administered prices

| Long-run equation | | | Comment |
|---|---|---|---|
| $CPI_t^{excl.food\ and\ admin}$ | = | $1.0 * BER\ 2yr\ expectations\ deflator_t$ | Replaces the GDP deflator in the LR |
| | + | $LR\ residual_t^{CPI\ excl.food\ and\ admin}$ | |
| **Short-run equation** | | | |
| $\Delta\ CPI_t^{excl.food\ and\ admin}$ | = | $-0.06 * LR\ residual_{t-1}^{CPI\ excl.food\ and\ admin}$ | |
| | + | $0.002 * output\ gap_{t-3}$ | |
| | + | $0.06 * \Delta\ import\ price\ deflator_{t-1}$ | New in the SR |
| | + | $0.68 * \Delta\ GDP\ deflator_t$ | |
| | + | $0.26 * \Delta\ unit\ labour\ costs_{t-1}$ | New in the SR |
| | - | 0.02 | |

### 3. CPI food inflation

| Long-run equation | | | Comment |
|---|---|---|---|
| $CPI_t^{food}$ | = | $0.5 * FAO\ world\ food\ prices_t^{ZAR}$ | |
| | + | $0.5 * BER\ 2yr\ expectations\ deflator_t$ | Replaces ULC and petrol prices in the LR |
| | + | $LR\ residual_t^{CPI\ food}$ | |
| **Short-run equation** | | | |
| $\Delta\ CPI_t^{food}$ | = | $-0.08 * LR\ residual_{t-1}^{CPI\ excl.food\ and\ admin}$ | |
| | + | $0.004 * output\ gap_{t-1}$ | |
| | + | $0.02 * \Delta\ oil\ price\ in\ rand_t$ | New in the SR |
| | + | $0.55 * \Delta\ BER\ 2yr\ expectations_t$ | New in the SR |
| | + | $0.43 * \Delta\ unit\ labour\ costs_{t-1}$ | |
| | - | 0.14 | |

### 4. Administered price components

a. Basic fuel price: determined by the rand/dollar exchange rate and international oil price changes, as before.

b. Fuel taxes, electricity prices and other administered prices: no longer exogenous; influenced by CPI inflation over the simulation.

### 5. Producer price inflation

| Long-run equation | | | Comment |
|---|---|---|---|
| $PPI_t$ | = | $0.8 * BER\ 2yr\ expectations\ deflator_t$ | Replaces the ULC |
| | + | $0.2 * import\ prices_t$ | |
| | + | $LR\ residual_t^{PPI}$ | |
| **Short-run equation** | | | |
| $\Delta\ PPI_t$ | = | $-0.28 * LR\ residual_{t-1}^{PPI}$ | |
| | + | $0.003 * output\ gap_{t-1}$ | |
| | + | $0.06 * \Delta\ other\ import\ price\ deflator_t$ | Replaces total import defl. |
| | + | $0.10 * \Delta\ oil\ price_t^{ZAR}$ | New in the SR |
| | + | $0.61 * \Delta\ unit\ labour\ costs_t$ | New in the SR |
| | + | $0.25 * \Delta\ BER\ 2yr\ expectations_t$ | New in the SR |
| | - | 0.002 | |

## 6. Private sector salaries

| Long-run equation | | | Comment |
|---|---|---|---|
| $salaries_t^{private}$ | = | $1.0 * CPI_t$ | Replaces BER 2yr expectations |
| | + | $1.0 * productivity_t$ | |
| | + | $LR\ residual_t^{private\ salaries}$ | |
| **Short-run equation** | | | |
| $\Delta\ salaries_t^{private}$ | = | $-0.13 * LR\ residual_{t-1}^{private\ salaries}$ | |
| | + | $0.008 * \Delta\ BER\ 2yr\ expectations_t$ | New in the SR |
| | - | 0.12 | |

## 7. Private sector employment

Private sector employment follows an Okun's Law type specification in the simulation that strengthens its link to GDP.

## 8. Potential growth

| Equation | | | Comment |
|---|---|---|---|
| $potential\ GDP_t$ | = | $0.75 * capital\ stock_t^{private}$ | Current version of the core model takes potential GDP as given |
| | + | $0.25 * labour\ force_t$ | |
| | + | 1.73 | |
| | + | $residual_t^{potential\ GDP}$ | |

### 9. Private investment

| Long-run equation | | | Comment |
|---|---|---|---|
| $real\ private\ investment_t$ | = | $1.0\ * real\ GDP_t$ | |
| | - | $0.02 * (10yr\ yield_t - CPI\ inflation_t)$ | |
| | + | $0.20 * business\ confidence_t$ | New in the LR |
| | + | $LR\ residual_t^{real\ private\ investment}$ | |
| **Short-run equation** | | | |
| $\Delta\ real\ private\ investment_t$ | = | $-0.25 * LR\ residual_{t-1}^{real\ private\ investment}$ | |
| | - | $0.015 * \Delta(10yr\ yield_t - CPI\ inflation_t)$ | New in the SR |
| | + | $0.30 * \Delta\ real\ broad\ credit\ extension_{t-1}$ | |
| | - | $0.76$ | |

### 10. Business confidence

| Long-run equation | | | Comment |
|---|---|---|---|
| $business\ confidence_t$ | = | $8.38\ * (potential\ GDP_t - \ potential\ GDP_{t-4})$ | Current version of the core model takes business confidence as given |
| | - | $0.03 * EMBI\ plus\ spread_t$ | |
| | + | $LR\ residual_t^{business\ confidence}$ | |
| **Short-run equation** | | | |
| $\Delta\ business\ confidence_t$ | = | $-0.23 * LR\ residual_{t-1}^{business\ confidence}$ | |
| | + | $2.99 * (\Delta\ potential\ GDP_t - \Delta\ potential\ GDP_{t-1})$ | |
| | - | $0.02 * \Delta\ EMBI\ plus\ spread_t$ | |
| | - | $1.04$ | |

### 11. Repo rate

The Taylor rule is broadly unchanged, focusing on forecasted inflation and the output gap. The weight on interest rate smoothing is, however, set to zero. This is motivated by the assumption that during the disinflation period, implementing gradual changes to the policy rate is less important.

## 12. 10-year bond yields

| Long-run equation | | | Comment |
|---|---|---|---|
| $10yr\ yield_t$ | = | $1.0 * (real\ repo_t + BER\ 2yr\ expectations_t)$ | New in LR |
| | + | $1.02 * EMBI\ plus\ spread_t$ | New in LR |
| | + | $LR\ residual_t^{10yr\ yield}$ | |
| **Short-run equation** | | | |
| $\Delta\ 10yr\ yield_t$ | = | $-0.19 * LR\ residual_{t-1}^{10yr\ yield}$ | |
| | + | $0.20 * \Delta\ real\ repo_t$ | |
| | + | $0.41 * \Delta\ CPI\ inflation_t$ | |
| | + | $0.59 * \Delta\ BER\ 2yr\ expectations_t$ | New in SR |
| | - | $0.31 * \Delta\ EMBI\ plus\ spread_t$ | New in SR |
| | - | 0.03 | |

## 13. EMBI plus spread

| Long-run equation | | | Comment |
|---|---|---|---|
| $EMBI\ plus\ spread_t$ | = | $0.03\ * government\ debt\ ratio_t$ | |
| | - | $0.24 * potential\ growth_t$ | New in LR |
| | + | $0.03 * VIX_t$ | New in LR |
| | + | $0.23 * 10yr\ yield_t$ | New in LR |
| | + | $LR\ residual_t^{EMBI\ plus\ spread}$ | |
| **Short-run equation** | | | |
| $\Delta\ 10yr\ yield_t$ | = | $-0.551 * LR\ residual_{t-1}^{EMBI\ plus\ spread}$ | |
| | - | $0.14 * budget\ balance\ to\ GDP_t$ | |
| | + | $0.02 * \Delta\ VIX_t$ | New in SR |
| | + | $0.44 * \Delta\ 10yr\ bond\ yield_t$ | New in SR |
| | - | 1.22 | |

## 14. Real exchange rate

| Long-run equation | | | Comment |
|---|---|---|---|
| $real\ exchange\ rate_t$ | = | $0.02 * real\ UIP_t$ | Real 10-year yield deflated by BER 2yr expectations replaces repo deflated by PPI |
| | + | $LR\ residual_t^{real\ exchange\ rate}$ | |
| **Short-run equation** | | | |
| $\Delta\ real\ exchange\ rate_t$ | = | $-0.17 * LR\ residual_{t-1}^{real\ exchange\ rate}$ | |
| | - | $0.04 * \Delta\ EMBI\ plus\ spread_t$ | |
| | + | $0.1 * \Delta\ foreign\ commodity\ prices_t$ | Replaces terms of trade |
| | + | $0.81$ | |

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