INTERNATIONAL MONETARY FUND

Macroeconomic Effects of Lowering South Africa's Inflation Target

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WORKING PAPER

2025
NOV

WP/25/237

IMF Working Paper
African Department

Macroeconomic Effects of Lowering South Africa's Inflation Target
Prepared by Jana Bricco, Mario Mansilla, Delia Velculescu and Philippe Wingender*

Authorized for distribution by Andrea Richter Hume
November 2025

ABSTRACT: This paper explores the macroeconomic implications of lowering the inflation target in an Emerging Market such as South Africa using the IMF's Global Integrated Monetary and Fiscal model (GIMF). Model-based simulations indicate that lowering the inflation target from 4.5 to 3 percent, as recently announced by South Africa's central bank, may entail moderate near-term output costs (measured by the so-called "sacrifice ratio"), while leading to medium-term output gains and lower borrowing costs. The near-term costs critically depend on the credibility of the central bank, which determines the speed with which agents adjust their inflation expectations. Specifically, output costs are lower when inflation expectations adjust more rapidly following the announcement of the new target by the central bank. Similarly, higher sensitivity of risk premia to the announcement of a lower inflation target can further reduce these costs. Concurrent fiscal consolidation can help support the disinflation process and lower the marginal sacrifice ratio.

Macroeconomic Effects of Lowering South Africa's Inflation Target

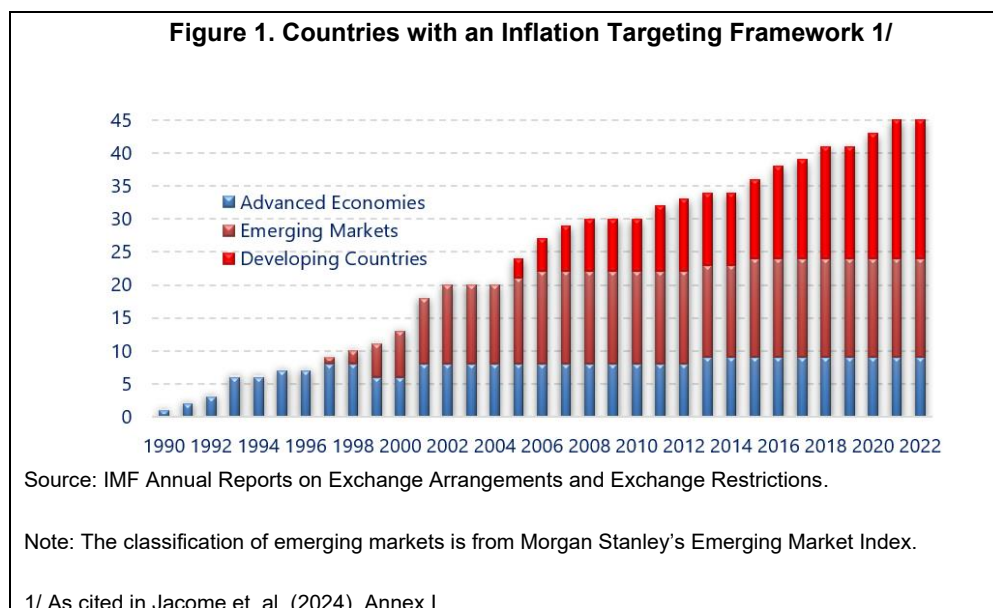Prepared by Jana Bricco, Mario Mansilla, Delia Velculescu and Philippe Wingender[1]

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I.   Introduction

Inflation targeting (IT) frameworks have been widely used around the world, given their record of supporting macroeconomic stability. Initially adopted primarily by advanced economies, such frameworks have been increasingly used by emerging markets (EMs) and developing economies, with 45 countries currently identified as having an IT monetary regime.[2] When well designed and credible, IT frameworks have been associated with lower inflation outcomes, and hence a more stable macroeconomic environment. Indeed, while country conditions vary from case to case and over time, successful inflation targeting countries have tended to face lower risk premia on their debt.[3] This effect is due to lower inflation levels and volatility among IT countries,[4] with the positive impacts being higher in EMs.

Figure 1. Countries with an Inflation Targeting Framework 1/

Source: IMF Annual Reports on Exchange Arrangements and Exchange Restrictions.

Note: The classification of emerging markets is from Morgan Stanley's Emerging Market Index.

1/ As cited in Jacome et. al. (2024). Annex I.

South Africa, an early IT adopter, has recently announced a change in the implementation of its framework by targeting a lower inflation rate. South Africa adopted inflation targeting in 2000, establishing a 3–6 percent band as the operational guide for monetary policy.[5] In 2017, the South African Reserve Bank (SARB) refined the implementation of its framework by announcing its preference for targeting the midpoint of its target range (4.5 percent). Following the example of other emerging markets, informed by recent reviews of its inflation targeting framework, and supported by favorable inflation developments, the SARB announced in July 2025 a preference for lowering its preferred target from the midpoint (4.5 percent) to the lower bound (3 percent) of its target band.

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[2] Jacome et.al. (2024) analyze the heterogeneity of inflation targeting countries and the importance of the inflation history in a country prior to IT adoption.

[3] In a panel study, Fouejieu and Roger (2013) find that IT lowers a country's risk premium relative to other monetary policy frameworks.

[4] Kiley (2007) shows that inflation levels and volatility are positively correlated.

[5] The inflation targeting framework is formally set by the National Treasury in consultation with the SARB.
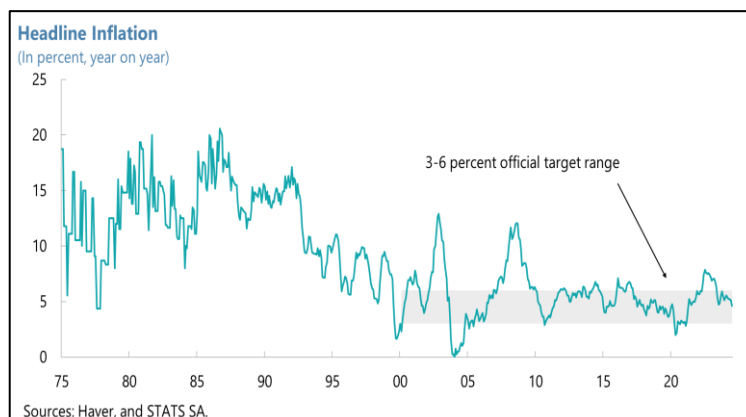
A key question is how such a policy change would affect macroeconomic outcomes. There is broad agreement that once achieved, low and stable inflation comes with significant macroeconomic benefits: higher confidence would support higher growth; stronger purchasing power would disproportionately benefit the poor, helping reduce inequality; lower inflation premia would reduce debt-financing costs and thus debt burdens; and lower inflation differentials with trading partners would lower pressures on the exchange rate and reduce exchange rate volatility.[6] However, bringing inflation expectations down usually necessitates a tighter monetary policy stance than would otherwise be the case, which could result in near-term economic costs via lower employment and output. Such costs could be lower if the central bank is independent and credible and the announcement of the new lower target can influence expectations without the need to raise policy rates.[7]

This paper aims to answer this question by applying the IMF's Global Integrated Monetary and Fiscal model (GIMF) to the case of South Africa. The GIMF is a multi-country general-equilibrium framework that captures monetary and fiscal policy interactions, which can help identify the channels of transmission of such policy changes to the economy and quantify their macroeconomic effects. Our modeling analysis points to three key results. First, near-term output costs (referred to in the literature as the "sacrifice ratio") depend strongly on inflation expectations: the more forward-looking expectations are—which in turn critically depend on the credibility of the central bank—the lower the sacrifice ratio. Second, the higher the sensitivity of inflation risk premia to the announcement of a lower inflation target, the lower the output costs. Third, concurrent fiscal consolidation can support the disinflation process.

The paper is organized as follows. Section II provides some context on South Africa's experience with its IT framework, recent studies of its effectiveness, and international experiences with lowering the inflation target. Section III presents the modeling framework, describing the structure and calibration of the GIMF model as tailored to the South African context. Section IV details the simulation scenarios, outlining the alternative assumptions regarding inflation expectations, risk premia, and fiscal policy. Section V concludes with a summary of the results and some policy implications.

II.   Context

Inflation targeting was introduced in South Africa in 2000. The framework, announced in August 1999,

established a 3–6 percent band as the operational guide for monetary policy intervention. Originally, the authorities intended to narrow the target range from 3–6 percent in 2002–03 to 3–5 percent in 2004–05. However, a spike in the Rand in 2001 accelerated inflation above the target range, and the planned switch was abandoned. Inflation accelerated again due to the commodity

Headline Inflation
(In percent, year on year)

3-6 percent official target range

Sources: Haver, and STATS SA.

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[6] See Hassan (2015) and SARB Conference Paper – Fourteen Years of Inflation Targeting in South Africa and the Challenge of a
    Changing Mandate (https://www.resbank.co.za/en/home/publications/publication-detail-pages/conference-papers/2015/6889).
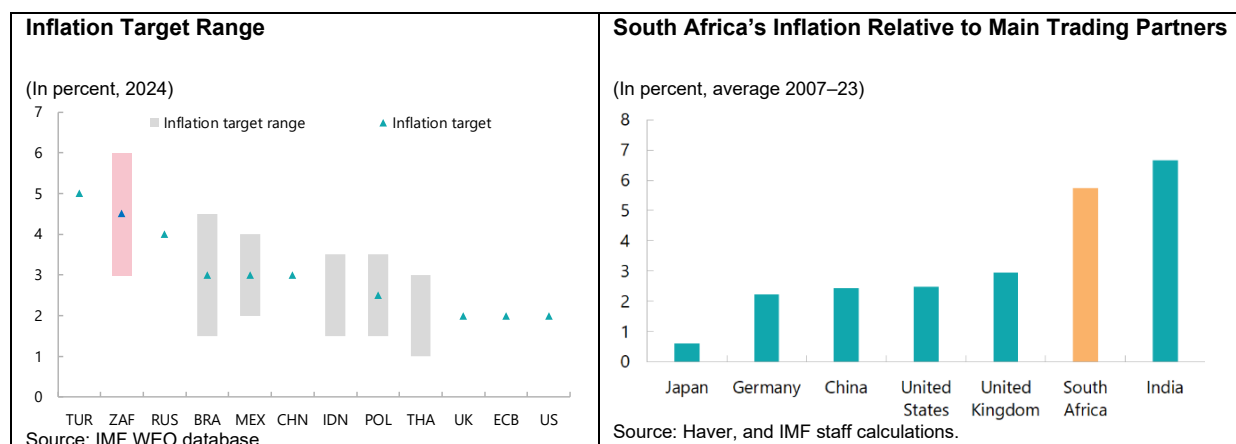
[7] See Vermeulen "Central Bank Independence, Inflation and Money Growth: Evidence from South Africa" (2024).

price surge in 2008 and subsequently declined. Between 2011–17, inflation hovered around the upper end of the target range.[8]

In 2017, the SARB communicated its preference for targeting the 4.5 percent midpoint of its target range.[9]

Following this communication, inflation and inflation expectations declined from around 6 to 4.5 percent without the need for the SARB to raise policy rates. However, following the global post- pandemic inflation surge, the SARB tightened monetary policy during 2021–23, which helped reduce inflation gradually to 4.4 percent in 2024.
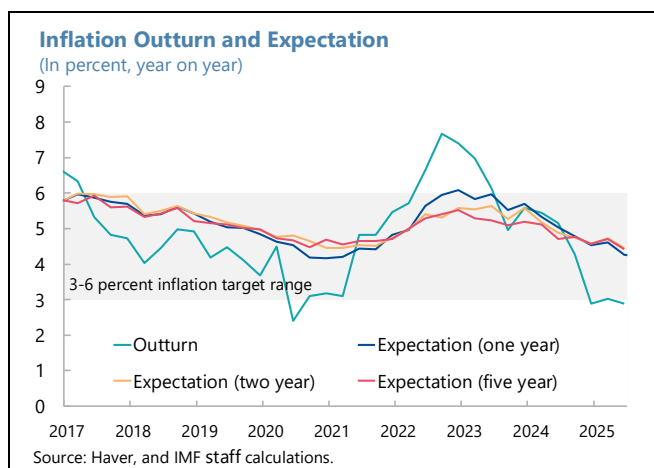
In July 2025, in the context of declining inflation and expectations, the SARB announced its preference for targeting the lower (3 percent) bound of its target range. Inflation continued to decline in 2025, averaging 3.1 percent in the first half of the year, with (two-year ahead) inflation expectations also on a declining trend, reaching 4.2 percent in

Inflation Outturn and Expectation
(In percent, year on year)

3-6 percent inflation target range

Outturn — Expectation (one year)
Expectation (two year) — Expectation (five year)

Source: Haver, and IMF staff calculations.

July 2025. The SARB took the opportunity of the lower inflation environment to announce its preference for a lower 3 percent preferred inflation target.[10] In making this decision, the SARB highlighted that South Africa's inflation target range had been generally higher and wider than that of peers and trading partners, which had resulted in higher inflation outcomes in South Africa than elsewhere.[11] Higher inflation affected disproportionately the poor and eroded purchasing power by putting downward pressure on the exchange rate.[12]

Inflation Target Range

(In percent, 2024)

Inflation target range ▲ Inflation target

Source: IMF WEO database.

South Africa's Inflation Relative to Main Trading Partners

(In percent, average 2007–23)

Japan   Germany   China   United States   United Kingdom   South Africa   India

Source: Haver, and IMF staff calculations.

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[8] In 2009, the reference inflation rate for the IT changed from the CPIX (CPI less the interest on mortgage bonds) to the CPI.

[9] Statement of the Monetary Policy Committee (resbank.co.za) July 2017.

[10] Statement of the Monetary Policy Committee (resbank.co.za) July 2025.

[11] See: https://www.resbank.co.za/content/dam/sarb/publications/speeches/speeches-by-governors/2025/kganyago-price-stability.pdf

[12] While the exchange-rate passthrough to inflation has been declining over time, estimates suggest it ranges between 15–20 percent--- see A Kabundi and M Mlachila, 'Monetary Policy Credibility and Exchange Rate Pass-Through in South Africa', South African Reserve Bank Working Paper Series No. WP/18/04, Pretoria: South African Reserve Bank, August 2018. Miyajima "Exchange Rate Volatility and Pass-Through to Inflation in South Africa" (2019) IMF Working Paper.

The SARB's decision has been informed by recent policy reviews and studies. The Independent Review of Monetary Policy conducted by Honohan and Orphanides (2022) found that monetary policy was successful in maintaining inflation within the target range and stabilizing inflation expectations, but noted that the wide target band allowed for too large variation over a long-term horizon, resulting in higher inflation risk premia.[13] Thus, the authors recommended moving from the 3–6 percent target band with an implicit midpoint target to an explicit point target of 3 percent. In its 2024 Macroeconomic Policy Review, the National Treasury also concluded that the inflation-targeting regime has been associated with a decline in average inflation and its volatility and was successful in anchoring expectations. However, the Review questioned whether "the current definition of the target is the most appropriate given inflation differentials," noting that further assessments of the appropriate level of the target and its form would be needed to inform policy decisions. Hall (2025) found that, while theory calls for a zero-inflation target, practical considerations suggest a target of 2–3 percent as appropriate. Burger (2025) also suggested a lower inflation target but advocates for a range of 1.5–4.5 percent with a midpoint of 3 percent.

South Africa's move toward a lower inflation target follows that of several other countries. Box 1 discusses the experiences of a number of countries with introducing and adapting their IT frameworks to anchor inflation and inflation expectations. For example, Canada and the UK, which are among the earliest adopters of an IT framework, have successfully implemented point inflation targets (2.5 to 2 percent) with narrow bands, which helped lower inflation and expectations. The Czeck Republic, which adopted IT around the same time as South Africa, managed to move from a 4.5 percent (+/- 1 percent) target in 2000 to a 2 percent (+/- 1 percent) target by 2010. More recently, other EMs such as Indonesia, the Philippines, and Brazil, have managed to reduce their inflation targets from 5–8 percent to 2.5–3 percent.

III. Modeling Framework

This paper uses the IMF's Global Integrated Monetary and Fiscal Model (GIMF) to shed light on the macroeconomic effects of lowering the inflation target in an EM such as South Africa. The GIMF model is a multi-region dynamic stochastic general equilibrium (DSGE) model incorporating micro-founded behavior of households and firms and rich fiscal and monetary policy frameworks. The model features nominal and real rigidities and trade in intermediate, investment, and consumption goods. As such, it captures well the dynamics of inflation, output, and trade across countries and regions, making it a suitable tool to assess the macroeconomic impact of changing the inflation target in a large and open Emerging Market such as South Africa. For a comprehensive overview of the model, see Kumhof and others (2010) and Anderson and others (2013). Other recent applications of the GIMF can be found in IMF (2023) and Carton and Muir (forthcoming).

The model relies on a number of key assumptions across each country/region.

- Households: In each country/region households are divided into two groups: (i) those within an overlapping generation structure (OLG) who make decisions on consumption, savings, and labor supply, and (ii) liquidity-constrained households who consume all their income each period and follow the labor supply decisions of the OLG households. This configuration introduces non-Ricardian behavior, influencing short-term dynamics through habit persistence in consumption and labor supply.

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[13] In particular, they see long-term borrowers being disadvantaged by this uncertainty, especially if inflation outturns are lower than the upper bound of the band.

- Firms: Firms operate in monopolistically competitive markets, setting profit-maximizing prices subject to nominal rigidities and residual demand for their differentiated products. They employ Cobb-Douglas technology, combining labor and capital to produce output. Investment decisions are subject to real adjustment costs, and require inputs sourced both domestically and internationally. The financial accelerator mechanism, as outlined by Bernanke, Gertler, and Gilchrist (1999), plays a crucial role in investment dynamics, where firms must borrow from financial intermediaries due to insufficient retained earnings, and corporate risk premia are determined endogenously.
- Trade**:** Trade flows are modeled bilaterally, accounting for consumption, investment and intermediate goods, and responding to demand, supply, and pricing conditions, including terms of trade and real exchange rates. This framework captures the influence of international economic interactions on the domestic economy.
- Policies**:** Fiscal policy in each country aims to ensure stability of both government debt in the long-term and output in the short run. This is achieved by endogenously adjusting tax rates, expenditures, and transfers to provide countercyclical support in the short run and keep debt on a constant path in the long run through a fiscal deficit target. Monetary policy is designed to respond to economic shocks based on inflation targeting using a calibrated Taylor rule. The setting of monetary policy in GIMF shapes economic dynamics over a five to ten-year horizon without affecting long-term real economic outcomes.

The model's calibration relies on data from the OECD Inter-Country Input-Output Database (2023) and the IMF's Government Finance Statistics database. This ensures that the model accurately reflects the economic environment and policy framework specific to South Africa and its key trading partners, enabling robust analysis of macroeconomic trade-offs and policy impacts. In calibrating the GIMF model for South Africa, the following adjustments were made to reflect the economic characteristics of the country:

- Nominal rigidities are informed by South Africa-specific Phillips curve estimates, with a quarterly slope of 0.25, indicating the response of inflation to economic activity. [14]
- Markups in domestic goods markets are assumed to be higher compared to the baseline for advanced economies, reflecting structural market conditions.
- The share of liquidity-constrained households is set at 60 percent, greater than in advanced economies (25 percent), capturing the financial constraints faced by a significant portion of the South African population, which is one of the most unequal in the world (Table 1).
- Sectors, covering both tradables and non-tradables, include agriculture, mining, manufacturing, and services.

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[14] Kabundi, Schaling and Some (2019); Botha, Kuhn and Steenkamp (2020); Dladla and Malikane (2022); Reid and Siklos (2022).

Table 1. South Africa: Key Calibrated Parameters					
	South Africa	China	Euro Area	Rest of the World	United States
Nominal Rigidities (annual)					
Domestic goods prices	12.0	48.0	72.0	48.0	48.0
Imported goods prices	4.8	16.0	24.0	4.8	48.0
Wages	25.0	120.0	180.0	120.0	120.0
Markups					
Consumption goods	1.20	1.10	1.10	1.10	1.10
Investment goods	1.15	1.05	1.05	1.05	1.05
Intermediate goods	1.20	1.20	1.20	1.20	1.20
Imported goods	1.05	1.05	1.05	1.05	1.05
Wages	1.10	1.10	1.10	1.10	1.10
Share of Liquidity-constrained Households	0.60	0.25	0.25	0.40	0.25

Source: GIMF and IMF staff calibration.

IV. Simulation Results

The GIMF model is used to simulate the announced reduction in the SARB's inflation target from 4.5 to 3 percent. The analysis focuses on the impact of this policy change on key macroeconomic variables, with a focus on economic transmission channels and near-term output losses and medium-term gains. An important determinant of how the economy responds to the policy change is the behavior of inflation expectations. The model considers three key specifications: (i) "fully forward-looking" expectations, where changes in the inflation target are immediately and completely integrated into expectations; (ii) "rapidly-adapting" expectations, where expectations adjust swiftly to information about the central bank's new inflation target, which is the GIMF baseline calibration; and (iii) "gradual learning", where expectations evolve more slowly, as backward-looking agents take time to learn about and adapt to the new inflation target. [15] In addition, our analysis also includes two variations: (i) a lower inflation target combined with reduced country risk premium due to lower inflation risk, and (ii) a fiscal consolidation alongside the change in the inflation target and lower risk premia.

A. Policy Credibility: Implications of Different Inflation Expectations

Under the baseline specification of "rapidly adapting" inflation expectations, this policy change results in a lower real interest rate but also a moderately lower output level in the near term (Figure 1). Assuming rapidly (but not fully) adapting expectations, the level of output (and growth rate) declines in the first year following the implementation of the policy change (compared to a no-policy change scenario). In this scenario, the real interest rate falls immediately without the need to raise policy rates, as the policy announcement is sufficient to

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[15] In the model, fully forward-looking expectations are proxied by reducing the degree of nominal rigidities compared to the rapidly-adapting baseline scenario. This causes prices and wages to adjust more quickly to the change in the central bank's inflation target. Gradual learning assumes agents do not expect further inflation declines beyond the current year. The scenarios are offered as illustrative simulations. Quantifying the degree of "forward-looking-ness" of inflation expectations and credibility of the central bank in South Africa would require additional analyses. See for example IMF (2023c).

put inflation on a downward path. This supports private investment in the near term. However, private consumption declines on impact, as a result of two competing channels. A first channel operates through income effects, stemming both from lower interest income on household savings (due to the lower interest rate) and lower expected after-tax income (due to the expected fiscal policy response to lower inflation), which depresses current consumption for non-liquidity constrained individuals. Since nominal interest rates and hence debt servicing costs decline permanently, government consumption is expected to eventually increase to maintain the same overall deficit over the long run. Forward-looking non-liquidity constrained households expecting lower future income—since the higher government consumption must eventually be financed through higher taxes—are consuming less today and save more—the well-known Ricardian equivalence effect. A second channel operates in the opposite direction and pushes non-liquidity constrained consumers facing lower returns on future savings to consume more today—the so-called substitution effect. In the model, the two income effects dominate.[16] Real exports also fall, as lower inflation causes the real effective exchange rate to appreciate.

In the medium run, inflation and interest rates are permanently lower, while the level and growth rate of output increases. The lower real interest rates continue to support higher investment and output through capital accumulation over the medium run. This boosts private consumption as labor demand and incomes rise. The high share of hand-to-mouth consumers amplifies the effect of higher income on private consumption. Net exports, however, continue to drag down growth, given the appreciated real exchange rate. The government is assumed to maintain a constant overall fiscal balance, so that government consumption also increases over time, in line with the decline in interest costs, supporting output. While public debt is higher in the long run under the assumed fiscal rule, interest costs as a share of GDP are permanently lower (by 0.6 percent of GDP over the medium run).

The model-implied "sacrifice ratio" (output loss per percent inflation decline) under the baseline scenario is 0.6, broadly in line with estimates in the literature.[17] SARB's 2024 Monetary Policy Review and Loewald et al. (2025) analyze the switch from the 3-6 percent band to a point target of 3 percent utilizing SARB's open economy quarterly projections model (QPM). The papers found a sacrifice ratio of around 0.4-0.5 (over a period of 2-5 years). In another study, Burger (2025) estimated a sacrifice ratio of around 0.3 (over a two-year period). Previously, Loewald et al. (2022) employed a structural vector autoregression approach (as in Cecchetti and Rich, 2001), estimating a sacrifice ratio of just over 0.5 (over a two-year period). However, using a trend analysis approach (as in Ball, 1994), the same paper found that the reduction in trend inflation between 2016–19 was not associated with any output loss.

Sacrifice ratio estimates for South Africa			
	Target Change	Target Change + Lower Risk Premium	Target Change + Lower Risk Premium + Fiscal Adjustment
Fully forward-looking expectations	0.13	0.03	-0.25*
Rapidly adjusting expectations	0.56	0.19	0.5*
Gradually learning expectations	1.22	1.12	0.8*
Notes: * Marginal sacrifice ratio.			
Loewald et al. (2022)	0.52**		
SARB's QPM & Loewald et al. (2025)	0.44**		
Burger (2025)	0.34**		
** Sacrifice ratios calculated over 2 years			

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[16] In GIMF, liquidity-constrained households are not allowed to save, and hence their consumption is directly linked to current income. For these households, lower ag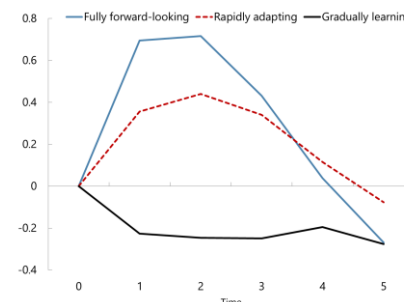gregate demand depresses real wages and hence their current consumption. Given the high share of liquidity constrained consumers in South Africa, this compounds the initial slowdown in overall private consumption.

[17] The sacrifice ratio in our model is estimated over a three-year period.

The sacrifice ratio declines to close to zero if inflation expectations are fully forward looking; conversely, output costs could be higher if expectations adjust slowly (Figure 2). If agents are fully forward looking—corresponding to a high degree of credibility of the central bank—the sacrifice ratio would fall to around 0.1, implying little to no cost to output from the reduction in the inflation target. In this scenario, inflation and the real interest rate fall faster, supporting a sharper increase in investment compared to the baseline scenario, which supports aggregate demand and income. In this context, private consumption declines by less in the near term. Moreover, as the exchange rate appreciates less, exports do not fall as sharply as in the baseline scenario. Conversely, in a scenario where agents only gradually come to believe that the inflation target change is permanent, the transition costs of the policy change would increase, with the sacrifice ratio estimated at just above 1. The more pronounced output decline in the near term relative to the baseline reflects the impact of higher initial nominal policy rates needed to counteract the more sluggish inflation behavior. The higher real interest rate reduces investment and consumption, as households have a higher incentive to save. In this scenario, the interest cost savings for the government are also significantly lower than in the other two scenarios, pointing to the importance of policy credibility to secure gains from disinflation.

Figure 1. Impact of Inflation Target Change Under Baseline Scenario

Real GDP Level

(Deviation from steady state level, percent)
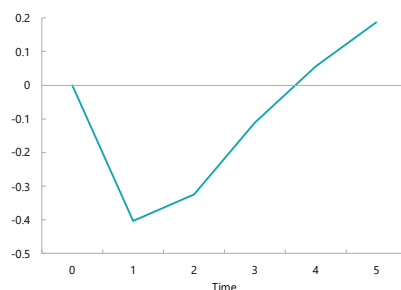
Real GDP Growth Rate Decomposition

(Deviation from steady state growth rate, percent)
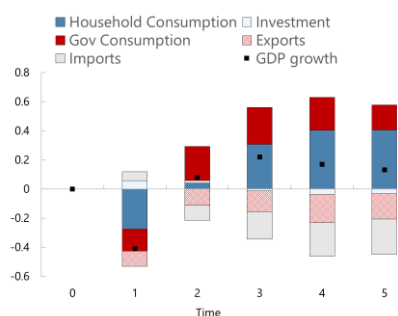
Inflation (Percent)
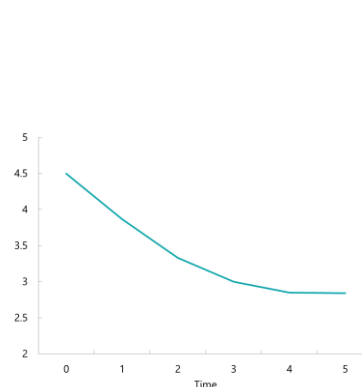
Nominal and Real Interest Rates
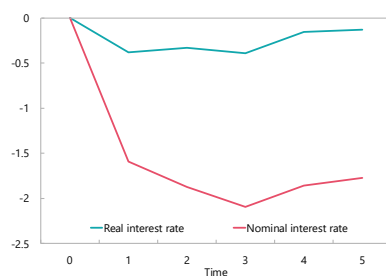
(Deviation from steady state level, percent)

Changes in the Real Effective Exchange Rate *(Deviation from steady state level, percentage points)*
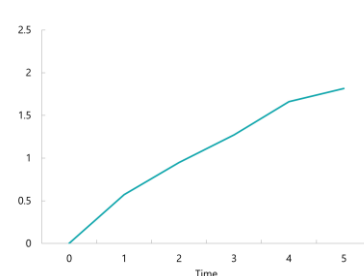
Real Net Exports *(Deviation from steady state level, percent)*
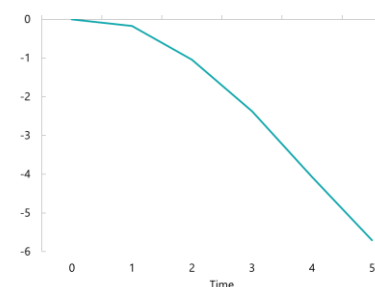
Real Investment

(Deviation from steady state level, percent)
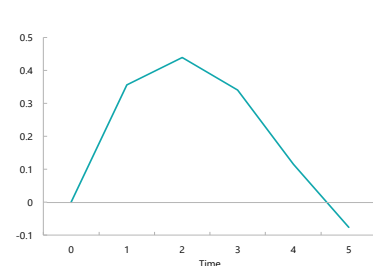
Real Consumption

(Deviation from steady state level, percent)
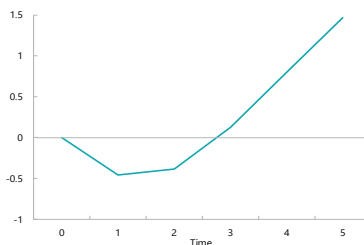
Interest Cost on Public Debt

(Deviation from steady state level, percent of GDP)
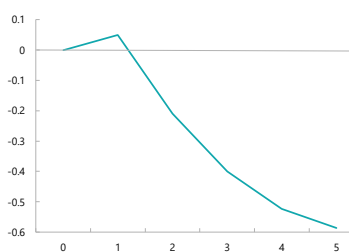
Source: IMF staff calculations using GIMF.

Figure 2. Impact of Inflation Target Change Under Different Inflation Expectations Assumptions

Real GDP Level

(Deviation from steady state level, percent)
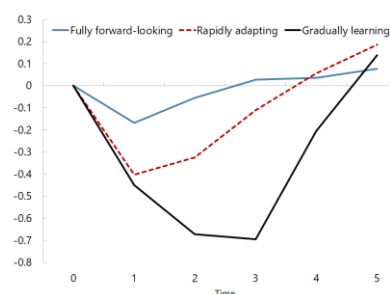
Real GDP Growth Rate

(Deviation from steady state growth rate, percent)
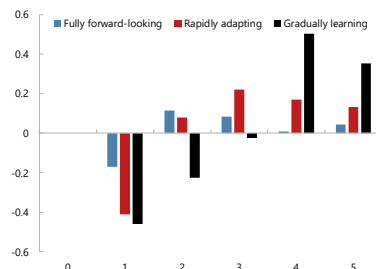
Sacrifice Ratio of an Inflation Target Change *(Cumulative GDP losses per percent inflation decline over three years)*

Inflation

(Percent)

Changes in the Real Interest Rate

(Deviation from steady state level, percentage points)
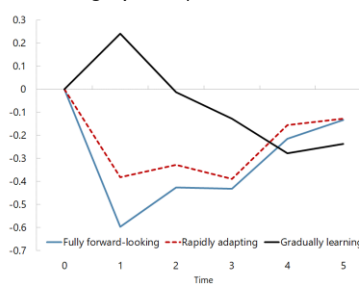
Changes in the Real Effective Exchange Rate *(Deviation from steady state level, percent)*
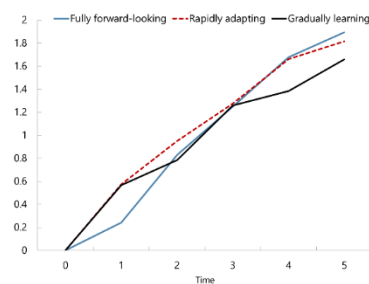
Real Investment

(Deviation from steady state level, percent)

Real Consumption

(Deviation from steady state level, percent)

Interest Cost on Public Debt *(Deviation from steady state level, percent of GDP)*
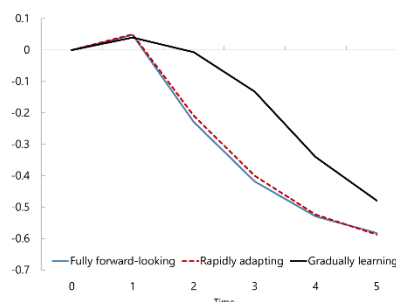
Source: IMF staff calculations using GIMF.

B. Market Reaction: Implications of Lower Inflation Risk Premia

Lower risk premia due to lower expected inflation would significantly reduce the sacrifice ratio under the baseline case. A (credible) commitment to a lower target would be expected to translate into lower variability in expected and realized inflation, which would likely transmit to lower inflation risk premia. Since the model does not allow for endogenous responses of risk premia to policy changes, we simulate this effect by reducing the Uncovered Interest Rate Parity (UIP) exogenous premium for South Africa by 25 basis points gradually and permanently over 5 years. The change in the inflation target still results in a decline in output in the first year, similar to the baseline scenario without lower premia though the decline is slightly lower with stronger GDP growth rates over the medium term (Figure 3). This is driven by a sharper fall in the real interest rate, which supports investment, income, and private consumption in the near term, though the risk premium reduction leads to stronger declines in exports due to a larger appreciation of the real effective exchange rate it is not sufficient to offset the positive impact from higher investment and private consumption. As a result, the sacrifice ratio under the baseline scenario, at 0.2, is significantly lower than in the scenario without lower premia (Figure 4).

As before, the sacrifice ratio declines further under forward looking expectations, while it is higher under gradual learning. With forward-looking expectations and declining risk premia, a faster decline in the real interest rate supports stronger investment and private consumption in the near term than under the baseline specification of expectations (i.e. rapidly adapting), supporting output (Figure 4). As a result, the sacrifice ratio is reduced to zero, implying no output costs of disinflation. This highlights the importance of central credibility in influencing both inflation expectations and market perceptions of risk premia. However, with more sluggish inflation expectations, the beneficial effects of lower risk premia on the sacrifice ratio are dampened, with the sacrifice ratio (1.1) only slightly lower than in the scenario without UIP.

Lower risk premia due to the lower inflation target result in larger medium-term gains to output and lower borrowing costs. In the scenarios with rapidly adapting or fully forward-looking expectations, higher temporary medium-term output gains (0.6–0.8 percent) would be achieved due to higher investment and private consumption induced by the lower real interest rate. In these scenarios, public interest costs also decline more markedly (by up to 0.8 percentage points of GDP) in the medium term.
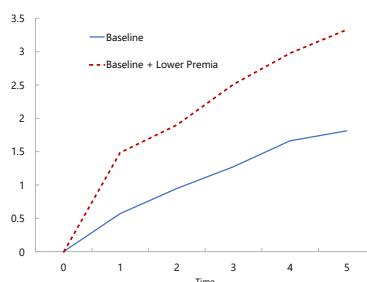
Figure 3. Impact of Inflation Target Change under Baseline Assumptions with and without Lower Risk Premia

Real GDP Level

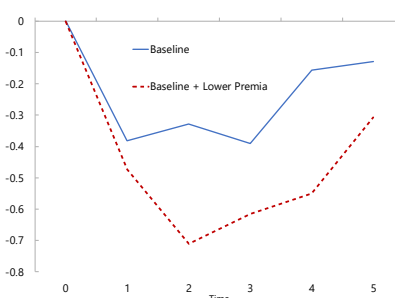*(Deviation from steady state level, percent)*
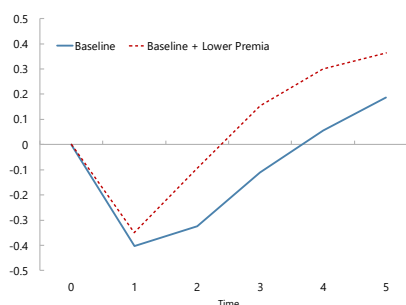
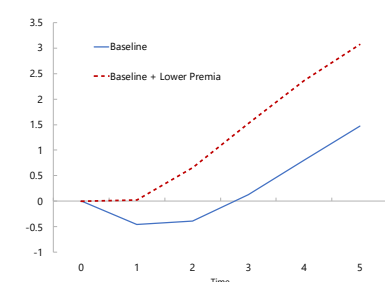**Changes in the Real Effective Exchange Rate** *(Deviation from steady state level, percentage points)*

Real Interest Rates

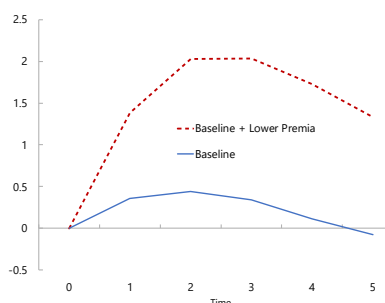*(Deviation from steady state level, percent)*

Real Consumption

(Deviation from steady state level, percent)

Real Investment *(Deviation from steady state level, percent)*

Government Consumption *(Deviation from steady state level, percent)*

Real Exports

(Deviation from steady state level, percent)

Real Imports

(Deviation from steady state level, percent)

Interest Cost on Public Debt *(Deviation from steady state level, percent of GDP)*

Source: IMF staff calculations using GIMF.

Figure 4. Impact of Inflation Target Change with Lower Risk Premia under Different Inflation Expectation Assumptions

Real GDP Level

(Deviation from steady state level, percent)

Real GDP Growth Rate Decomposition for Rapidly Adapting Scenario

(Deviation from steady state growth rate, percent)

Sacrifice Ratio of an Inflation Target Change

(Cumulative GDP losses per percent inflation decline over three years)

Inflation

(Percent)

Changes in the Real Interest Rate

(Deviation from steady state level, percentage points)

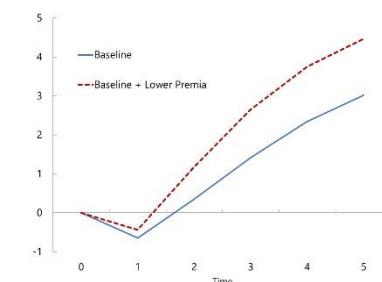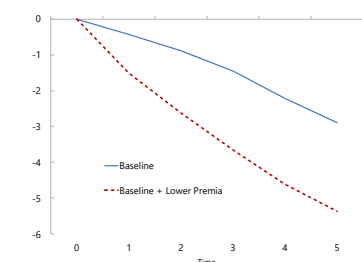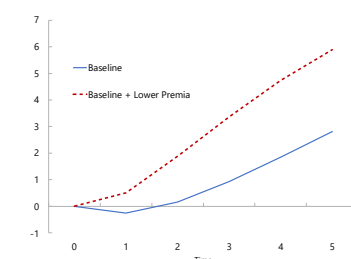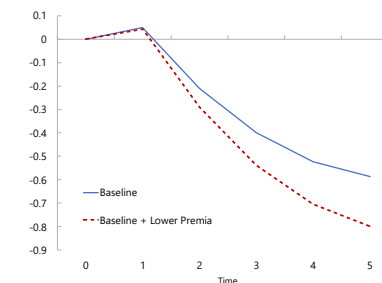**Changes in the Real Effective Exchange Rate***(Deviation from steady state level, percent)*

Real Investment

(Deviation from steady state level, percent)

Real Consumption

(Deviation from steady state level, percent)
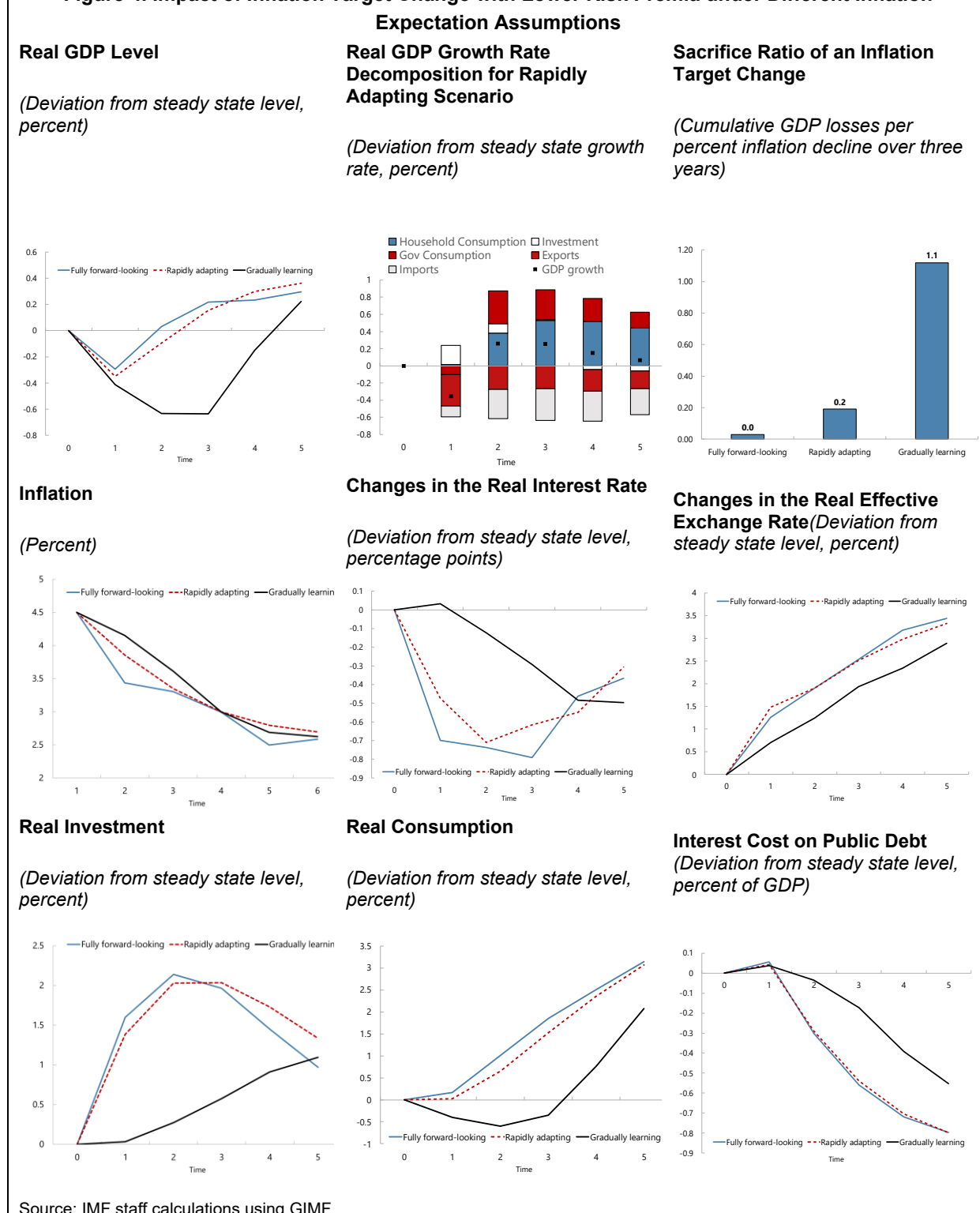
Interest Cost on Public Debt
(Deviation from steady state level, percent of GDP)

Source: IMF staff calculations using GIMF.

C. Monetary-Fiscal Interactions: Implications of Fiscal Consolidation

A question that often arises is how interactions between fiscal and monetary policy affect the economy when both consolidation and disinflation are pursued simultaneously. This scenario explores the implications of a spending-based fiscal consolidation (of 1.8 percentage points of GDP over three years, broadly in line with the authorities' recent budgets), implemented concomitantly with the change in the inflation target. Lower UIP risk premia (declining by 25 bp as in the previous scenario) are also assumed to be associated with these policy changes. Fiscal consolidation is expected to lower government consumption and output in the near term compared to the scenarios with no consolidation (Figure 5). While interest rates with consolidation decline relatively more, lower aggregate demand depresses private consumption and investment compared to the scenario without consolidation. The appreciation of the REER is moderated in the near term by lower government consumption, which reduces demand for non-tradable goods, and hence their prices relative to tradables. As a result, exports fall by less in this scenario compared to scenarios without consolidation.
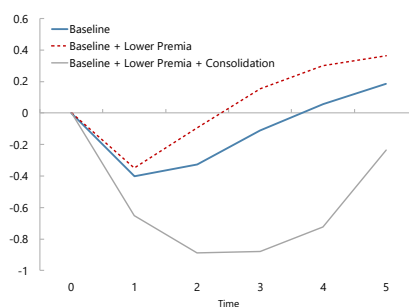
Our model analysis suggests that fiscal consolidation helps reduce the marginal sacrifice ratio associated with lowering the inflation target under all inflation expectations assumptions.[18] Real output declines more in scenarios with both fiscal consolidation and inflation reduction than in the absence of consolidation under all inflation expectation assumptions (Figure 6). Indeed, the implicit fiscal multiplier associated with the fiscal consolidation in the model is 0.4 for fully forward-looking expectations, 0.6 for rapidly adapting expectations and 0.7 for gradually learning expectations. However, the output costs of the combined policy changes are lower than the sum of the costs of implementing each of these initiatives, given that fiscal consolidation helps with the disinflation process, which in turn supports monetary policy achieving the lower inflation target. Moreover, lower risk premia are expected to help with both the fiscal consolidation and inflation target reduction. Thus, the marginal sacrifice ratio of the inflation target change conditional on fiscal consolidation becomes negative (-0.3) under fully forward-looking expectations and turns positive (0.5 and 0.8) for rapidly adapting and gradually learning expectations respectively, but still lower than what it would be in the absence of consolidation. The sacrifice ratio could also be reduced further if administered prices for public utilities—electricity, water, some transportation, which account for around 16 percent of the consumption basket—would rise more slowly under the consolidation scenario (this effect is not currently captured in our model and is left for future research) or if risk premia fall more in response to fiscal policy.

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[18] The marginal sacrifice ratio is defined as output loss per percent inflation decline holding the fiscal impulse constant.
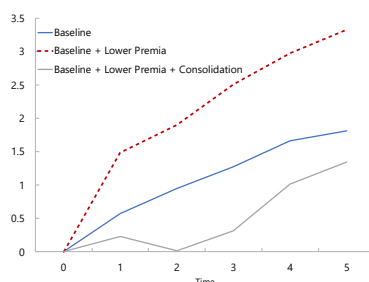
Figure 5. Impact of Inflation Target Change under Baseline Assumptions with and without Lower Risk Premia and Fiscal Consolidation

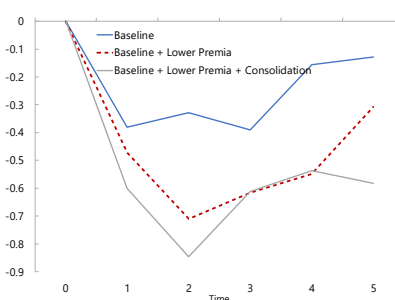**Real GDP Level**

(Deviation from steady state level, percent)

Changes in the Real Effective Exchange Rate *(Deviation from steady state level, percentage points)*
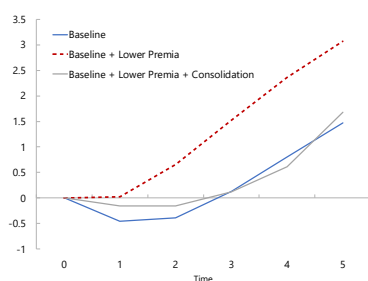
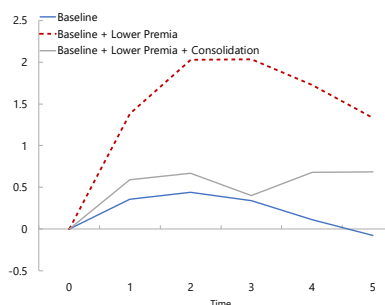**Real Interest Rates**

(Deviation from steady state level, percent)

Real Consumption

(Deviation from steady state level, percent)

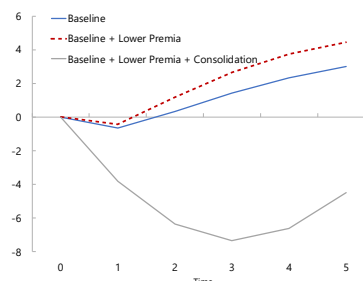**Real Investment** *(Deviation from steady state level, percent)*
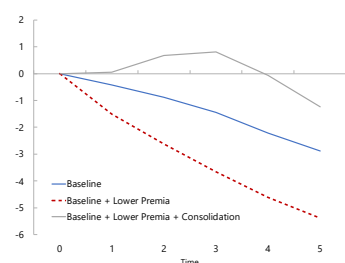
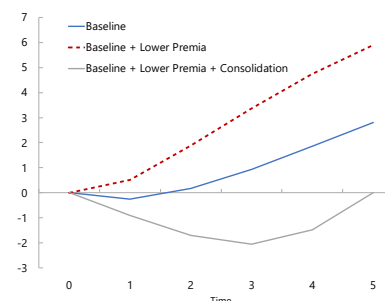**Government Consumption** *(Deviation from steady state level, percent)*

Real Exports
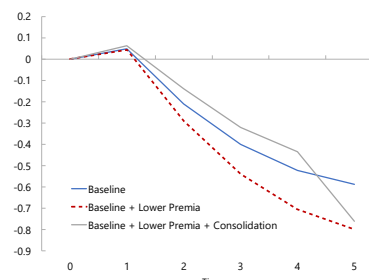
(Deviation from steady state level, percent)

Real Imports

(Deviation from steady state level, percent)

Interest Cost on Public Debt *(Deviation from steady state level, percent of GDP)*

Source: IMF staff calculations using GIMF.

Figure 6. Impact of Inflation Target Change Under Differing Inflation Expectation Assumptions with Lower Premia and Fiscal Consolidation

Real GDP Level

(Deviation from steady state level, percent)
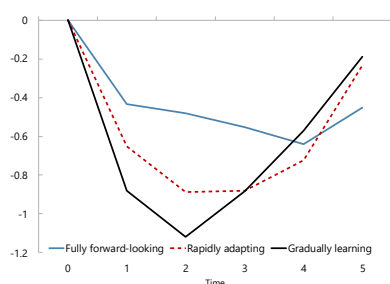
Real GDP Growth Rate Decomposition, Rapidly Adapting Expectations

(Deviation from steady state growth rate, percent)
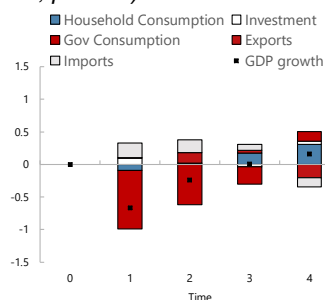
Marginal Sacrifice Ratios *(Cumulative percent GDP losses per percent inflation decline)*
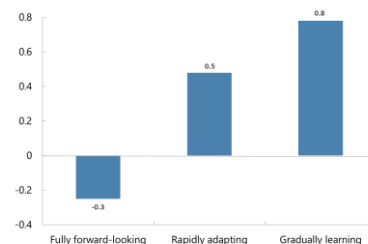
Inflation

(Percent)
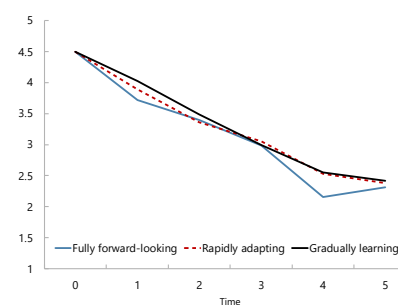
Changes in the Real Interest Rate

(Deviation from steady state level, percentage points)
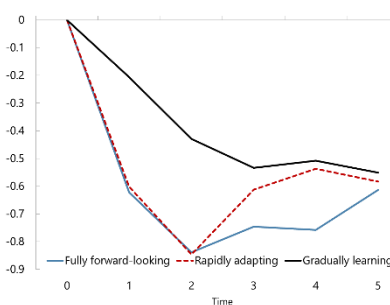
Changes in the Real Effective Exchange Rate *(Deviation from steady state level, percent)*
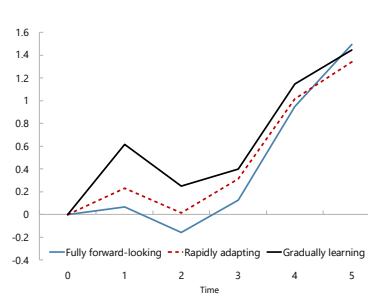
Real Investment

(Deviation from steady state level, percent)
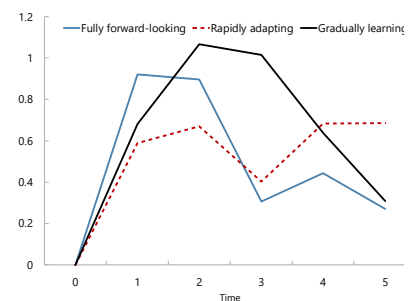
Real Consumption

(Deviation from steady state level, percent)
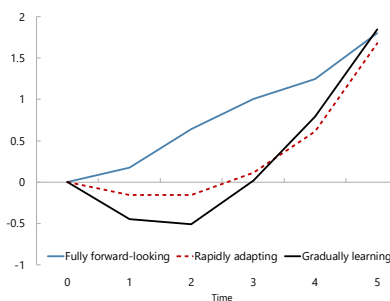
Interest Cost on Public Debt *(Deviation from steady state level, percent of GDP)*
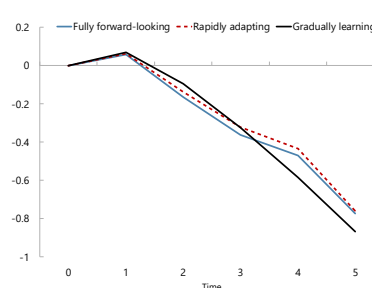
Source: IMF staff calculations using GIMF.

V. Conclusions

This paper explored the macroeconomic effects of a change in South Africa's inflation target. Our analysis highlights a number of factors that affect the transmission of such a policy change to the economy. First, the credibility of the central bank in influencing the behavior of inflation expectations is shown to be a key determinant of the evolution of macroeconomic variables and outcomes in response to this policy change. Second, the ability of the central bank to affect the market's views of inflation risk premia can equally influence macroeconomic outcomes. Third, monetary-fiscal interactions are very important, as they can act to reinforce and support each other.

Our analysis suggests that lowering the inflation target has important benefits in the medium term, while transition costs can be reduced significantly when policy credibility is preserved.[19] Our model indicates that moving toward a lower inflation target can support investment and output and reduce financing costs for the private sector and government over the medium run. However, such a policy change may imply near-term transition costs. Importantly, such costs depend on the credibility of the central bank in influencing inflation expectations and risk premia. Indeed, our model suggests that the more credible the central bank is in reducing inflation expectations and inflation risk premia, the lower the transition costs of the policy change. This points to the importance of maintaining central bank independence and credibility.

Our paper also shows that monetary-fiscal interactions present both challenges and opportunities with respect to lowering inflation and public debt at the same time. The combined output costs of these two policy changes could weigh more on the economy in the near term. However, the two policies would be reinforcing, as fiscal consolidation can support the disinflation process, while lower inflation can help reduce borrowing costs, supporting debt reduction. Thus, the output costs of the combined policy changes would be lower than the sum of the costs of implementing each of these initiatives. Indeed, fiscal consolidation is shown in our model to reduce the marginal sacrifice ratio of disinflation. Moreover, the two policy initiatives can support stronger macroeconomic outcomes and significantly lower debt and borrowing costs for the public and private sectors in the medium term. This points to the importance of close coordination between monetary and fiscal authorities.

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[19] This conclusion and the related policy implications are in line with the [2024 South Africa Article IV Consultation Staff Report](#).

Box 1. Selected Country Examples of Experiences with Lowering Inflation Targets

- **Brazil.** In 1999 Brazil adopted the IT framework with a band of +/- 2 percent around a mid-point of 8 percent. During the first few years of the IT regime authorities announced several downward adjustments to the bandwidth and mid-point. Starting in 2005, the announced target became more stable at 4.5 percent (+/- 2 percent). In 2017 the band was tightened to +/-1.5 percent and the authorities decided to start reducing the target over a period of 6 years by 0.25 percent each year (down to 3 percent). Authorities kept their glide path through this period, including during the monetary tightening cycle of the post pandemic period, and actual inflation fell within the target range except in 2021–22 due to the pandemic. In mid-2023 the National Monetary Council replaced the previous practice of setting medium term targets three years in advance every calendar year for a continuous 3 percent target (+/- 1.5 percent) from 2025 onwards. This change was established by presidential decree[1], and is deemed to have helped re-anchor medium term expectations. At the same time, policy action and communication have been geared to build credibility around the continuous target. In recent quarters inflation has once again deviated from the target and the central bank is responding within the framework with a new monetary tightening cycle.

- **Czech Republic.** IT was officially introduced in the Czech Republic in 1999, following a detailed assessment of the necessary prerequisites, and in the context of the country's integration into the EMU. At that point it was established that the target established for year 2000 (4.5 percent +/- 1 percent) would gradually move to the long-term target until 2005 (2 percent +/- 1 percent), which was considered the price stability level.[2] This implied a yearly glide of half a point. Underlying this decision was the consensus between the government and the Czech National Bank that price and monetary stability was a major policy objective. The Czech framework defines its targets in terms of 'net inflation', which is derived from the overall CPI adjusted for regulated prices, i.e. prices affected by administrative interventions and for indirect tax changes. This was later replaced by the full CPI and since 2010 the target was set at 2 percent (+/- 1 percent of tolerance). At the same time, a set of exceptions were established that allowed authorities not to react immediately creating counterproductive effects on the real economy. The exceptions are mainly exogenous and unforeseeable factors: substantial changes in global prices, deviation of the exchange rate unrelated to domestic monetary policy, agricultural shocks, and natural disasters.

- **Indonesia.** Following the reforms in the aftermath of the Asian Crisis, the Bank of Indonesia officially adopted an IT framework in 2005. The transition to an IT framework has been successful, and the country has gradually reduced the midpoint of the target band from 6 to 2.5 percent. Specifically, the initial glide path from the originally announced 6 percent (+1 percent) was later revised and raised in response to shocks associated with volatile oil prices and the global financial crisis of 2008/2009. By 2015, headline inflation was in the mid-single digits, and for 2016 a band of +/- 1 percent was announced around a target of 4 percent. Subsequent announcements in 2018 and 2020 lowered the midpoint target to 3.5 and 3 percent respectively, and actual inflation has remained within or below the target band since then, except in 2022. The target band was again lowered in 2024, with the midpoint set at 2.5 percent. While several shocks over the past 20 years, as noted above, have led to periods of deviations from the target band, Bank Indonesia (BI) has been consistently successful at returning inflation to the target range, including following the post-COVID-19 inflation surge. The importance of several factors that have complicated monetary policy, including episodes of capital flow volatility and exchange rate pressures, have attenuated over time. Exchange pass through is now relatively moderate and inflation expectations well anchored. Private sector FX denominated debt has declined as a share of GDP since the mid 2010's, including due to BI's complementary policy efforts.

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[1] IMF (2023) and Banco Central do Brazil (2024).

[2] While slightly higher than the ECB's target, this initial target was also seen as appropriate given the distortions still in place for a transitioning economy (Czech National Bank and IMF (2000)).

Box 1. Selected Country Examples of Experiences with Lowering Inflation Targets (concluded)

- **Philippines.** Inflation targeting, defined in terms of a range, was formally adopted as the framework for monetary policy in January 2002. For 2005–2006 the range was 4–5 percent. In December 2006, the inflation target was re-specified from a range target to a point target with a tolerance interval of +/- 1 percentage point starting with the target for 2008. The inflation target in 2010 was 4.5 percent with a tolerance of +/- 1 percent, and the target announced from 2011 onwards was 4 percent (+/- 1 percent). After 2015, the target was set at 3 percent (+/- 1 percent) and has remained unchanged[3] except for 2018 and the post pandemic period, headline inflation has fluctuated within the target range. For 2025, inflation is expected to remain within the target band.

- **Canada.** When the country initially adopted an inflation target in 1991, the inflation rate was around 4–5 percent. The new framework aimed to bring down inflation to lower levels more consistent with price stability. Hence the government and the Bank of Canada agreed to a glide path to take inflation (measured by CPI) gradually to 3 percent by the end of 1992, then 2.5 percent by mid-1994, and finally 2 percent by the end of 1995 with a band of +/-1 percent around the target. The glide path targets were not treated as rigid commitments and the Bank emphasized flexibility in the horizon to achieve its targets. It was further agreed that at that point the framework's performance would be reviewed periodically to reconsider the target rate for the future. Subsequent reviews included explicit language clarifying the importance of the midpoint of the target band, emphasizing that the band should be interpreted "as a reflection of […] short-run uncertainty" rather than "a measure of […] indifference". Other elements have also been incorporated in the agreements. For instance, the 2001 agreement provided more detail on operational aspects of the monetary policy framework, especially concerning the role that measures of core inflation played in the Bank of Canada's decision making, and incorporation of financial stability considerations in exceptional circumstances.[4] Renewals are presently carried out every five years and are normally preceded by a research program focused on specific issues. For instance, the 2001 agreement provided more detail on operational aspects of the monetary policy framework, especially concerning the role that measures of core inflation played in the Bank of Canada's decision making, and incorporation of financial stability considerations in exceptional circumstances.[5] Renewals are presently carried out every five years and are normally preceded by a research program focused on specific issues.

- **UK.** The IT framework of the UK is often cited as an example of how a well-defined point target can effectively anchor inflation expectations. The UK was one of the early adopters of IT framework in 1992. The initial target was announced as a range of 1–4 percent ("with the intent to be in the lower part of the range")[6] and "2 percent or less" for the long run. In the initial years actual inflation fluctuated around 2–3.3 percent, but inflation expectations and risk premiums signaled long-run credibility issues. Then, following a period in which inflation expectations were systematically above both the target range and actual inflation outcomes, the regime was modified to a 2.5 percent point target in 1997 (+/- 1 percent range) and expectations fell accordingly relatively quickly and the inflation premium on long-term bonds aligned with the target as well. The announcement on IT was part of a broader monetary framework reform that assigned instrument independence to the Bank of England.[7] Further changes were introduced in 2003, when a different index was introduced though the essential elements were kept, which left the IT at 2 percent point target with +/- 1 percent band.

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[3] Bangko Sentral ng Pilipinas (2020).
[4] Amano et. al. (2024).
[5] Amano et. al. (2024).
[6] Amano et. al. (2020).
[7] IMF (2005) Chapter 4. See also IMF (2018).

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