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Working Paper

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WIDER Working Paper, No. 42/25

Provided in Cooperation with:
United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: Burger, Philippe (2025) : Twenty-five years of inflation-targeting in South Africa: Going from 6% to 3%?, WIDER Working Paper, No. 42/25, ISBN 978-92-9256-601-2, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki, https://doi.org/10.35188/UNU-WIDER/2025/601-8

This Version is available at:
https://hdl.handle.net/10419/322173

42
25

Twenty-five years of inflation-targeting in South Africa

Going from 6% to 3%?

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June 2025

WIDER WORKING PAPER

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Abstract: This paper proposes that the South African Reserve Bank should pursue a 3% inflation target, instead of the current 4.5% midpoint of a 3%-to-6% target range. Doing so may also result in lower inflation volatility, thereby reducing nominal exchange rate risk for investment and trade, and may thus support economic growth. Using a two-regime Markov-switching model, the analysis shows that since the global financial crisis, periods of higher inflation volatility are much shorter. Thus, inflation is relatively better anchored since the global financial crisis. But there are still shocks that coincide with periods of exchange rate volatility. Lastly, the analysis shows that the budget deficit/gross domestic product ratio, constraints on electricity supply, and administered prices contribute significantly to inflation, while the effect of real gross domestic product growth (as a demand variable) is limited. The analysis also argues that the sacrifice ratio, measuring the sacrifice of growth and employment that is required to reduce inflation, is of limited use once the potential role that other variables can play in the reduction of inflation and inflationary expectations is considered. The government has an especially significant role to play in supporting the South African Reserve Bank in lowering the inflation rate to an average of 3% by lowering the level and volatility of administered price inflation, reducing the budget deficit, and improving electricity supply.

Key words: inflation-targeting, administered prices, sacrifice ratio, budget deficit, budget deficit

JEL classification: E31, E52, E62

Acknowledgements: A version of this paper was presented at the South African Reserve Bank Biennial Conference ‘25 Years of Inflation Targeting: Lessons for the Future’, held on 27–28 March 2025 in Cape Town, South Africa.

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This study is published within the UNU-WIDER project **Southern Africa—Towards Inclusive Economic Development (SA-TIED)**.

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ISSN 1798-7237 ISBN 978-92-9256-601-8

https://doi.org/10.35188/UNU-WIDER/2025/601-8

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The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

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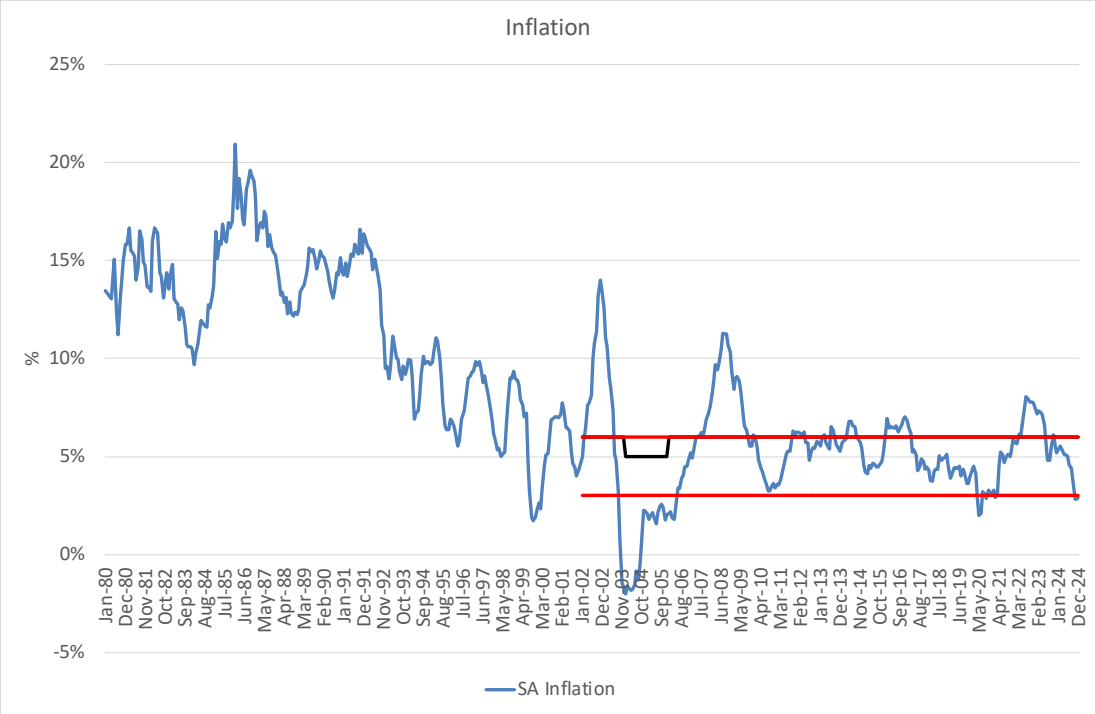
1 Inflation-targeting: an overview

Twenty-five years ago, on 23 February 2000, South African Minister of Finance Trevor Manuel, in the annual budget speech presented to parliament, announced inflation-targeting as the policy approach of the government and central bank. The government set the inflation target, and the South African Reserve Bank (SARB) has had instrument independence to pursue that target ever since. The target set by Manuel took the form of a target range of 3% to 6% to be achieved in 2002 (Figure 1). At a gala dinner that evening hosted for students participating in a budget essay competition, SARB Governor Tito Mboweni informally told a group of guests—which included me—that he supported an inflation-targeting policy, but that there were two aspects he would have stated differently. First, the 'escape clause' to be invoked when SARB missed the target range should have been called an 'explanation clause'. If SARB missed the target range, it would explain why it had missed the range and how it planned to return to it. He got his way in late 2003, when the escape clause was renamed the explanation clause (SARB 2003). Secondly, he argued, the target range should not have been stated as 3% to 6%, but as 6% to 3%, indicating the direction the policy intended inflation to go.

Figure 1: Inflation



Note: red lines represent the inflation target range of 3% to 6%, while the black line temporarily deviating from the 6% upper bound indicates the short-lived 3%-to-5% target range for 2004 and 2005, which was abandoned in 2002.

Source: author's illustration based on data from FRED (2025), SARB (2024), Manuel (2002), and author's calculations.

Although the target range has never been set in a high-to-low format, Mboweni's intention of lowering the inflation target materialized the next year, when the target range was adjusted to 3% to 5% for 2004 and 2005 (Figure 1). However, in 2002, following significant volatility of the rand and inflation, Manuel (2002) reverted to the initial 3% to 6% for 2004 and stated that it would remain there unless otherwise announced. That announcement never came, and more than two decades later the target

range is still 3% to 6%. However, since 2017 the Monetary Policy Committee has targeted the 4.5% midpoint of the 3%-to-6% target range. The question this paper seeks to answer is whether it is time to revive Mboweni's initial objective, with inflation going from its almost 6% average when inflation-targeting was implemented to an explicit 3% inflation target.

To consider this question, this paper first establishes the degree to which inflation-targeting has succeeded in stabilizing inflation within the 3%-to-6% range. As part of this analysis, the paper identifies the drivers of inflation and then considers which of these drivers serve as obstacles to stabilizing inflation within the 3%-to-6% range. The analysis includes both supply- and demand-side variables. Special attention is paid to fiscal variables, firstly in a Phillips curve setting, and secondly administered prices as a cost-push variable in a Granger causality type of estimation of the relationship between consumer price inflation (CPI) and administered price inflation. The findings then inform the discussion on whether the inflation target should be lowered to 3%, whose responsibility achieving this target should be, and how and over what period it should be done.

2 How successful has inflation-targeting been?

Ha, Ivanova, Ohnsorge et al. (2019: 46) show that inflation and inflation volatility were significantly lower under inflation-targeting regimes than under other exchange rate and monetary policy regimes for the period 1970 to 2017. For advanced economies average inflation was 2.1% in inflation-targeting countries versus 4.4% in non-inflation-targeting countries, while for emerging-market and developing economies it was 3.7% versus 7.4%. For inflation volatility the same is true for emerging-market and developing economies (a standard deviation of 2.0% for inflation-targeting countries versus 8.0% for non-inflation-targeting countries), although not for advanced economies, which registered a slightly higher volatility for inflation-targeting countries at a standard deviation of 1.3% versus 1.0%. Notwithstanding this better performance, Mishkin and Kiley (2025: 31) show that in the post-global financial crisis period, inflation rates in inflation-targeting emerging-market countries have nevertheless been higher than their stated target rates. In addition to inflation performance, Mohseni and Gharleghi (2021) show that the economic growth performance of emerging-market countries that adopted inflation-targeting is better than that in non-adopters.

In South Africa inflation-targeting is seen by the government and SARB as congruent with the mandate contained in Section 224 of the South African Constitution, which states:

> (1) The primary object of the South African Reserve Bank is to protect the value of the currency in the interest of balanced and sustainable economic growth in the Republic.
>
> (2) The South African Reserve Bank, in pursuit of its primary object, must perform its functions independently and without fear, favour or prejudice, but there must be regular consultation between the Bank and the Cabinet member responsible for national financial matters. (South Africa 1996)

Protecting the value of the currency implies low and stable inflation as a necessary (though not sufficient) condition for balanced and sustainable economic growth. The association between low and stable inflation and strong and stable economic growth and job creation is generally found across countries (Ha et al. 2022: 1). Since the implementation of an inflation-targeting policy approach in

2000, this objective has been pursued through an inflation target range of between 3% and 6%. With a 25-year track record, the question is: how successful has inflation-targeting been as an approach to keep inflation low and stable? Answering this question entails more than merely checking whether inflation has been contained within the 3%-to-6% range. It entails assessing whether inflationary expectations have been anchored, which includes answers to the following questions:[1]

- Has average inflation been contained within the 3%-to-6% range, and if so, has it been closer to the midpoint or to the lower or upper bounds of 3% and 6%?
- Has the volatility of the inflation rate declined?
- Is inflation subject to less inertia, meaning past inflation has less impact on current inflation?
- Has the pass-through effect from trade (exchange rates and foreign inflation) declined?
- Is inflation less sensitive to business cycle movements?

Table 1 shows that for the period 2000 to 2025, which is the period since the implementation of inflation-targeting, average inflation has been 5.3%, while the standard deviation of inflation, used to assess the volatility of inflation, has been 2.5%. While average inflation of 5.3% falls within the 3%-to-6% target range, it is halfway between the midpoint and upper bound of the target range. It is also not close to the 2%-to-3% level often seen as the norm in most of South Africa's largest trading partners (more on this below).

Table 1: Average inflation and inflation volatility

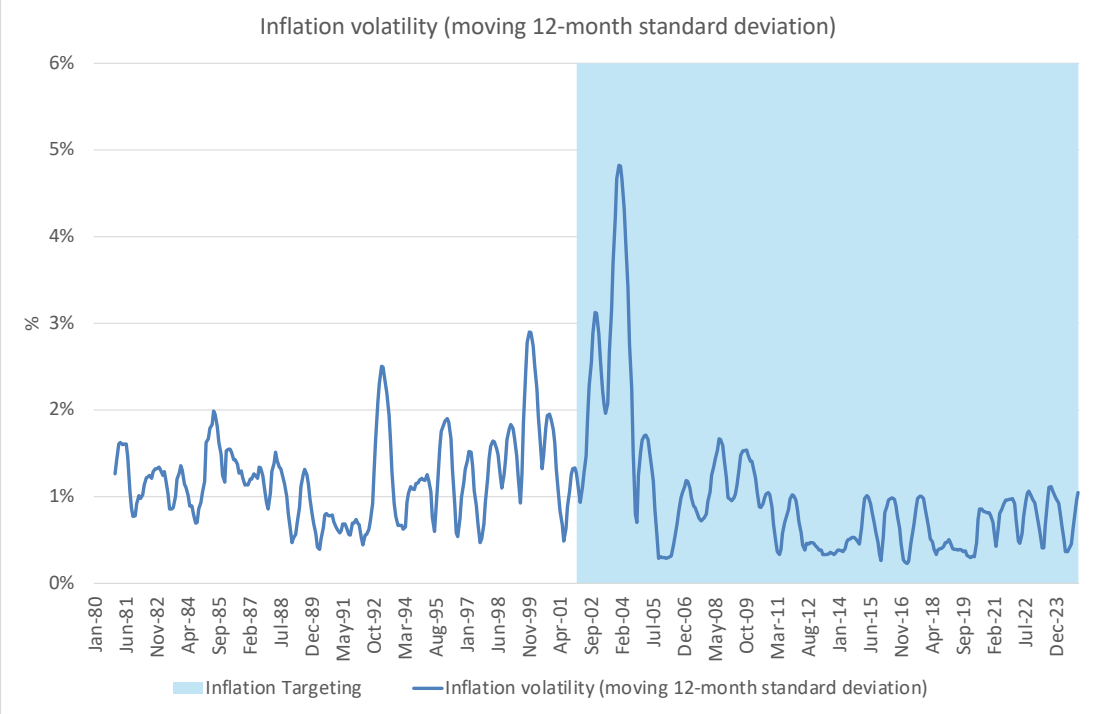
	2000–24	
Average (monthly y-o-y)	5.27%	
Standard deviation (monthly y-o-y)	2.54%	
	2000–09	2010–24
Average (monthly y-o-y)	5.47%	5.13%
Standard deviation (monthly y-o-y)	3.72%	1.24%

Source: author's calculations based on data from FRED (2025).

Table 1 also presents two subperiods, 2000 to 2009 and 2010 to 2024, which show that average inflation declined slightly, from 5.5% in the period 2000 to 2009, to 5.1% in the period 2010 to 2024. The most notable decline from the first to the second period, however, was in the volatility of inflation, with the standard deviation falling from 3.7% to 1.2%. The drop in volatility can also be observed in Figure 2, which shows the moving 12-month standard deviation of annual inflation. The blue shaded area in Figure 2 runs from 2002, which is the first year in which SARB had to reach its inflation target. Figure 2 shows that in 2002 to 2004, the first three years when inflation-targeting had to reach its target, inflation volatility was relatively high. The discussion below will elaborate on the reasons for this. However, from roughly 2005 onwards inflation volatility was significantly lower than in the pre-inflation-targeting era, and it stayed consistently below 1% from 2011 onwards. Inflation-targeting therefore coincided with a significant reduction in the volatility of inflation, which indicates better-anchored inflationary expectations.

[1] A relatively large literature exists seeking to answer these questions, with several studies focusing on emerging-market economies (Arsić et al. 2022; López-Villavicencio and Pourroy 2019; Stojanovikj and Petrevski 2021).

Figure 2: Inflation volatility (moving 12-month standard deviation)



Source: author's illustration based on data from FRED (2025) and author's calculations.

To assess whether inflation-targeting resulted in lower inertia of inflation, lower pass-through effects from trade (exchange rates and foreign inflation), and less sensitivity to business cycle movements requires the estimation of a Phillips curve relationship. The analysis starts with a version of Robert Gordon's (1984, 2013, 2018) basic triangle model, which augments the traditional Phillips curve model with supply-shock variables. For the US the basic triangle model thus includes (1) price inertia, (2) demand-side variables, and (3) supply-shock variables such as changes in the relative prices of food, energy, and imports, and the eight-quarter change in the trend rate of productivity growth (Gordon 2013). In the analysis for South Africa below, the triangle model is augmented with variables capturing expected inflationary pressure.[2] Thus, the model estimated for South Africa is:

$$p_t = \phi_{1R} + \phi_{2R}(L)p_{t-1} + \phi_{3R}(L)p_{t-1}^{US} + \phi_{4R}(L)EC_{t-1} + \phi_{5R}(L)D_{t-1} + \phi_{6R}(L)G_t + \phi_{7R}(L)NEER_t + \sum_{i=0}^{10}\theta_i S_i + \theta_1 Covid_t + \varepsilon_{Rt} \quad [1]$$

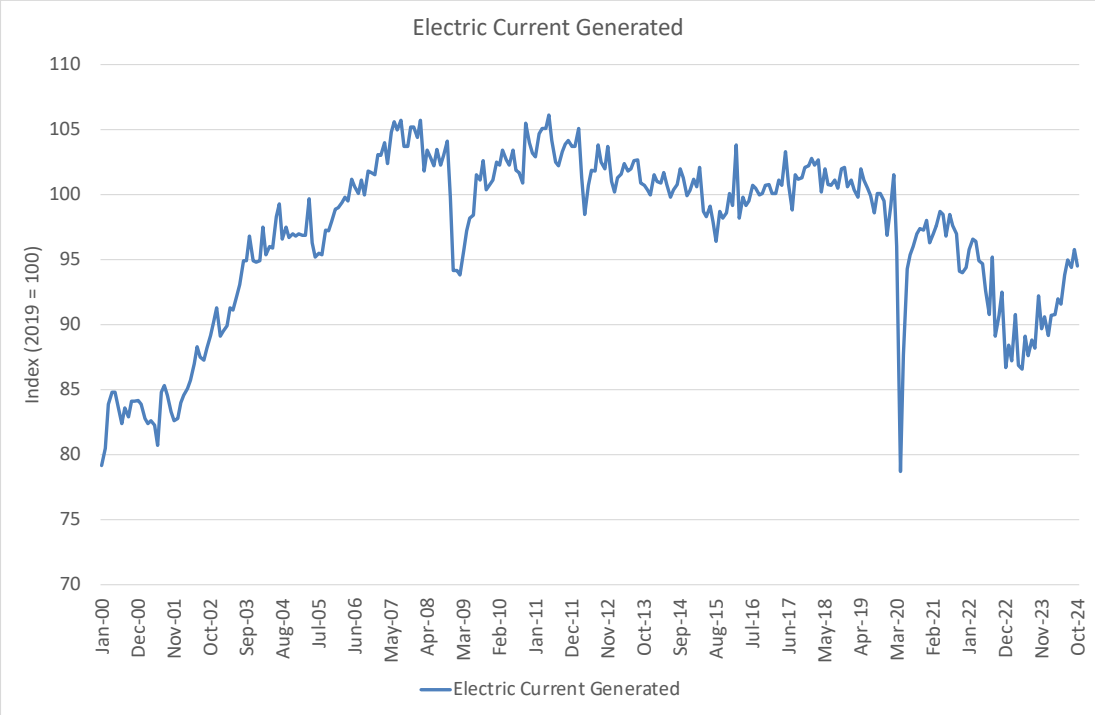
p_t is monthly inflation (month-on-month). p_t^{US} is US inflation (month-on-month) as a variable capturing inflationary expectation. EC_t is percentage change in electric current generated (included as a supply-shock variable). D_t is real gross domestic product (GDP) growth (month-on-month), included as a demand-side variable. Given the monthly frequency of the sample, monthly GDP growth values were generated from interpolated quarterly GDP (using a cubic spline). G_t is budget balance/GDP as a variable capturing inflationary expectations (surplus (+)/deficit(-), calculated with monthly data from the National Revenue Account). $NEER_t$ is percentage change in the nominal effective exchange rate

[2] For the various alternative Phillips curve specifications for South Africa, see Botha et al. (2020).

(included as a supply-shock variable). S_i is seasonal dummies. $Covid_t$ is a Covid dummy with March and April 2020 equal to one.

The Phillips curve model includes the month-on-month percentage change in the index for electric current generated as a supply-shock variable. Since 2007 South Africa has experienced periods of severely constrained electricity supply that have led to the electricity generating utility, Eskom, implementing a system of rotational electricity-rationing called 'load-shedding'. Periods during 2008, 2015, and 2023 saw significant reductions in electricity output (Figure 3), constraining economic activity and therefore creating supply-side shocks.

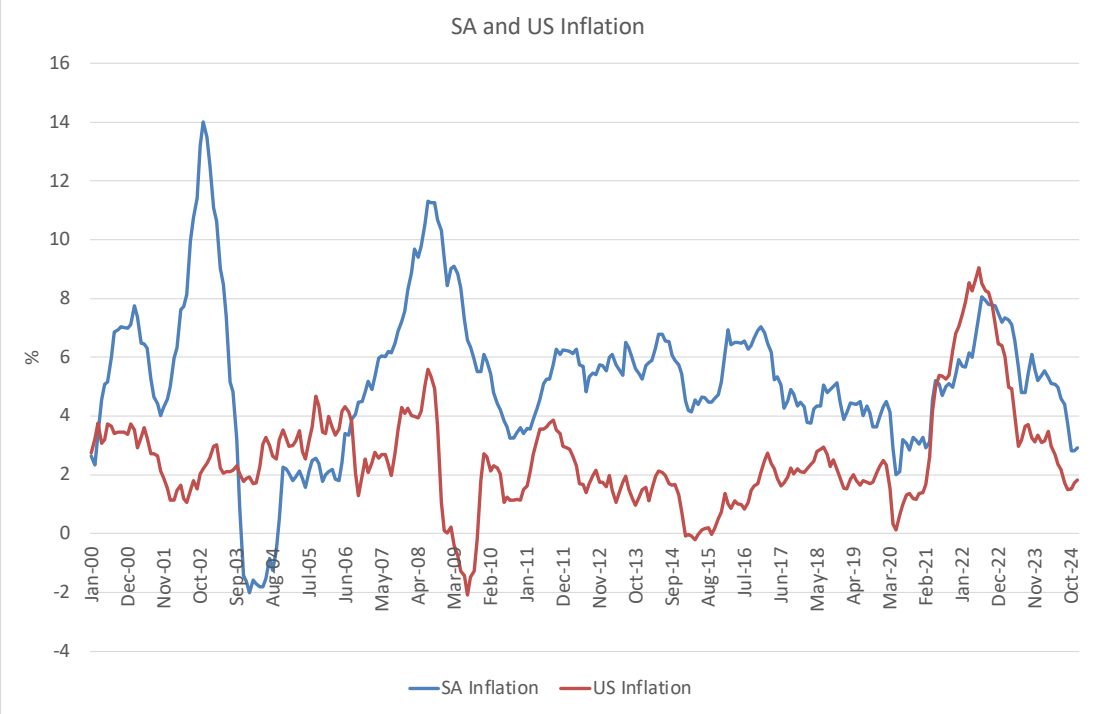
Figure 3: Electric current generated



Source: author's illustration based on data from SARB (2024).

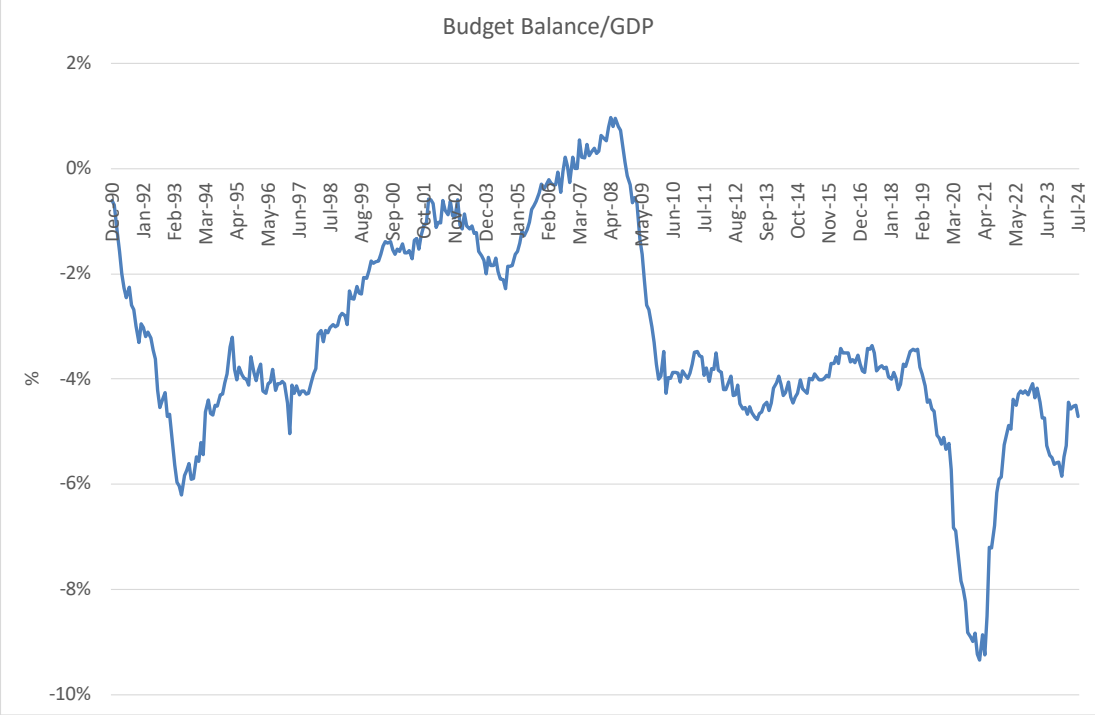
Normally one- or two-year-ahead expected inflation, as calculated by the Bureau for Economic Research (2025), would be included to capture expected inflation. However, the one- and two-year-ahead expected inflation series are only available in a quarterly frequency. The regression already includes interpolated real GDP growth as a demand-side variable, so including a variable available on a monthly frequency to capture inflationary expectations rather than a second interpolated variable was considered preferable. Preference was also given to variables that are determinants of inflationary expectations. Thus, preference was given to US inflation as a determinant of one-year-ahead expected inflation and the budget balance/GDP ratio as a determinant of two-year-ahead expected inflation (Figures 4 and 5). The Appendix contains the two models showing the relationship between expected inflation and these two variables.

Figure 4: US and South African inflation (year-on-year)



Source: author's illustration based on data from FRED (2025) and author's calculations.

Figure 5: Budget balance/GDP ratio

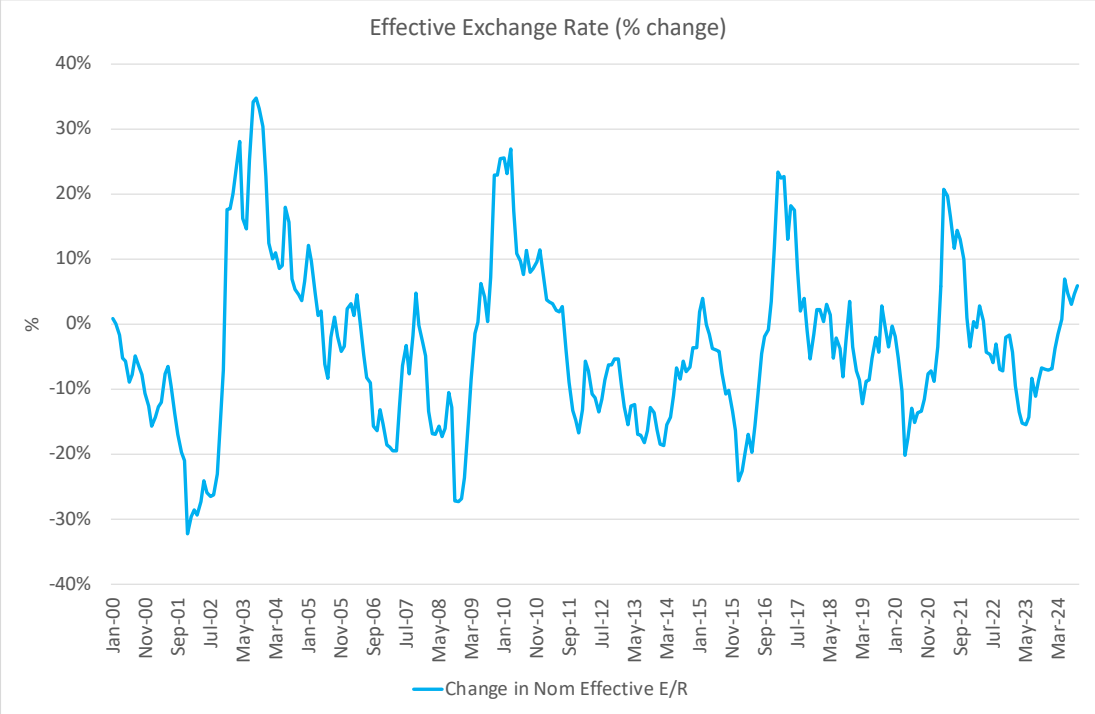


Source: author's illustration based on data from SARB (2024) and author's calculations.

The inclusion of the budget balance/GDP ratio to capture inflationary expectation follows from the work of Banerjee et al. (2023). Following Leeper (1991) and Bohn (1998), Banerjee et al. (2023) show that large fiscal deficits that contribute to rising debt/GDP ratios are likely to be inflationary if revenue and expenditure levels remain unchanged in future (meaning fiscal policy is unsustainable—this aspect will be discussed in more detail below). South Africa experienced a significant deterioration in its fiscal position from 2009, with the deficit widening (Figure 5) and the public debt-to-GDP ratio increasing from 23% to 73% by 2024. With a supply side often constrained by electricity shortages, the additional fiscal stimulus might thus a priori be expected to create inflationary pressure, not just through the demand side of the economy, but also through its impact on inflationary expectations.

Lastly, the Phillips curve model includes the nominal effective exchange rate. South Africa is an open economy that has experienced periods of very volatile exchange rate movements. Although exchange rate volatility has moderated in the period since 2000, the early 2020s still saw 20% year-on-year movements (Figure 6; the model, however, was estimated with month-on-month percentage changes).

Figure 6: Effective exchange rate (% change)



Source: author's illustration based on data from SARB (2024) and author's calculations.

The Phillips curve relationship was estimated as a Markov-switching model with two regimes for the period 2002m1 to 2024m10 (which is the inflation-targeting period, given that the first target was set in 2000 for 2002). Regime 0 had a higher volatility than Regime 1. All variables, including the variance but excluding the seasonal and Covid dummies, were regime-dependent. The diagnostics for serial correlation, normality, and autoregressive conditional heteroscedasticity (ARCH) effects were all sound. The null hypothesis of linearity was rejected, justifying the regime-dependent model. Table 2 and Figure 7 present the results.

Table 2: Phillips curve model (2002m1 to 2024m10)

	Regime 0 (volatile inflation)			Regime 1 (stable inflation)		
Regime switching	Coefficient	t-prob	LT coeff	Coefficient	t-prob	LT coeff
Constant	0.0037***	0.0100	*0.0051*	0.0006	0.1060	0.0010
Inflation $_{t-1}$	0.2737***	0.0060		0.0968**	0.0410	
Inflation $_{t-2}$	0.2986***	0.0020		0.0971*	0.0600	
Inflation $_{t-12}$	-0.2888**	0.0130		0.1661***	0.0000	
US inflation $_{t-1}$	0.1148	0.2560	0.1603	0.3603***	0.0000	*0.5630*
US inflation $_{t-3}$	-0.0566	0.5700	-0.0790	-0.3242***	0.0000	*-0.5066*
Electr gen (%) $_{t-2}$	-0.0374	0.2660	-0.0522	-0.0196***	0.0070	*-0.0306*
Electr gen (%) $_{t-3}$	-0.1086***	0.0050	*-0.1515*	-0.0307***	0.0000	*-0.0480*
Real GDP (%) $_{t-3}$	-0.2025	0.2470	-0.2826	0.0283**	0.0480	*0.0442*
Budget balance/GDP $_{t-7}$	0.0436	0.6170	0.0608	-0.1129***	0.0000	*-0.1764*
Budget balance/GDP $_{t-11}$	-0.2051**	0.0160	*-0.2862*	-0.1040***	0.0000	*-0.1625*
Ex rate nom effective $_{t-7}$	-0.0278**	0.0310	*-0.0388*	0.0052	0.3330	0.0081

Non-regime switching	Coefficient	t-prob
Covid dummy $_{t}$	-0.0051***	0.0010
Seasonal $_{t}$	0.0032***	0.0000
Seasonal $_{t-2}$	0.0021***	0.0010
Seasonal $_{t-6}$	0.0047***	0.0000

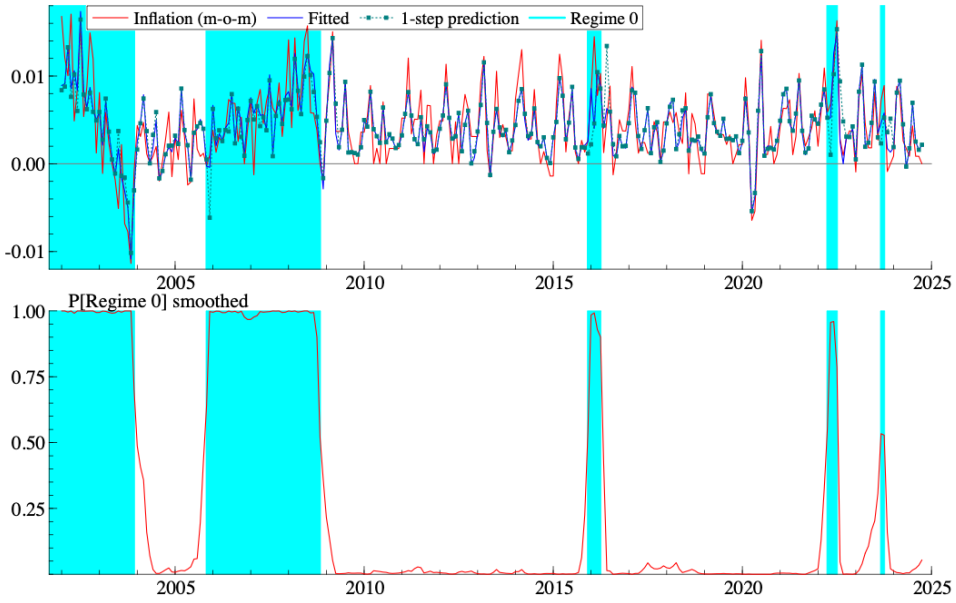
	Coefficient	Std error	Diagnostic test			prob
Sigma(0)	0.0034	0.0003	Normality test	Chi^2(2) =	1.717	0.4237
Sigma(1)	0.0020	0.0001	ARCH 1-1 test	F(1,240) =	0.074	0.7856
p_{0|0}	0.9323	0.0328	Portmanteau(36)	Chi^2(36) =	38.346	0.3636
p_{1|1}	0.9788	0.0127	Linearity LR-test	Chi^2(15) =	99.097	0.0000

Regime classification based on smoothed probabilities	Regime 0	Mth	Avg prob	Regime 1	Mth	Avg prob
	2002(1) – 2003(12)	24	0.985	2004(1) – 2005(10)	22	0.891
	2005(11) – 2008(11)	37	0.969	2008(12) – 2015(11)	84	0.982
	2015(12) – 2016(4)	5	0.870	2016(5) – 2022(3)	71	0.980
	2022(4) – 2022(7)	4	0.815	2022(8) – 2023(8)	13	0.925
	2023(9) – 2023(10)	2	0.531	2023(11) – 2024(8)	10	0.971
	Tot: 72 mths (26.3%), avg: 14.4 mths			Tot: 202 mths (73.7%), avg: 40.4 mths		

Note: long-term coefficient (LT coeff) equals the coefficient of the independent variable divided by (1 - sum of the coefficients of the lags of inflation). ***, **, and * indicate statistical significance at 1%, 5%, and 10%.

Source: author's calculations.

Figure 7: Regime classification



Source: author's illustration based on author's calculations.

Figure 7 shows two regimes, with Regime 0 (blue area) being a more volatile regime, with a sigma of 0.34%, than Regime 1 (white area), with a sigma of 0.2%. The two earlier occurrences of Regime 0, in the 2000s, were longer in duration than the last three, suggesting that periods of high inflation volatility have become shorter, which serves as an indicator of the improved anchoring of inflation.

Did inflation-targeting result in a lower inertia of inflation, a lower pass-through effect from trade, and less sensitivity to demand-side movements? Inertia did not decrease. Specifically, the sum of the long-run coefficients of lagged inflation is 0.28 in Regime 0 and 0.36 in Regime 1, or 0.26 if calculated with coefficients that are statistically significant at 5%. Regarding movements in the demand side of the economy, the analysis shows a modest role for movements in real GDP growth, pointing to a flat Phillips curve and a significantly stronger inflationary effect of the budget balance/GDP. Specifically, the coefficient for real GDP growth is insignificant in Regime 0, i.e. during periods of volatile inflation, with a modest long-run parameter of 0.04 in Regime 1. The budget balance/GDP ratio, however, remains inflationary in both regimes, with a long-run coefficient at lag 11 in Regime 0 at -0.21 and the sum of long-run coefficients (lags 7 and 11) in Regime 1 at -0.34, indicating a larger impact in the stable inflation regime. Given the much larger budget deficits since 2009 (Figure 5), fiscal policy has fed inflationary expectations and created significant inflationary pressure that monetary policy must offset to ensure inflation remains within its target range.

Added to this pressure are supply-side constraints. The analysis shows that the percentage change in electricity current generated is statistically significant and is inflationary when electricity current generated decreases. It has a long-run coefficient at lag 3 in Regime 0 of -0.2, while the sum of long-run coefficients (lags 2 and 3) in Regime 1 is -0.08. Given the significant limits on electricity generation South Africa has experienced since 2007, with electricity current generated falling by as much as 18% between 2011 and 2023 (Figure 4), its inflationary pressure has been significant. Thus, from both the demand and supply sides of the economy, the government's actions result in upward inflationary pressure. This raises the question of whether keeping inflation within its target range is the sole responsibility of SARB.

The percentage change in the nominal effective exchange rate only has an impact in the volatile inflation regime, with a long-run coefficient of -0.04 in Regime 0 and a statistically insignificant coefficient in Regime 1. A comparison of Figures 6 and 7 suggests that periods of high inflation volatility coincide with periods of high nominal effective exchange rate volatility, which corresponds with the effect of the nominal effective exchange rate during Regime 0. It is also noticeable that while the exchange rate impacts on inflation during the period of high inflation volatility (Regime 0), inflationary expectations as captured by the US inflation rate are not statistically significant. However, US inflation is statistically significant with a sum of long-run coefficients of 0.06 in Regime 1 (but the temporary effect is 0.56 at lag 1 and -0.51 at lag 3). Thus, during volatile inflation periods, the pass-through effect of the exchange rate dominates—in short, the focus is on the exchange rate volatility and crisis, and the impact of normal inflation expectations on inflation is suspended.

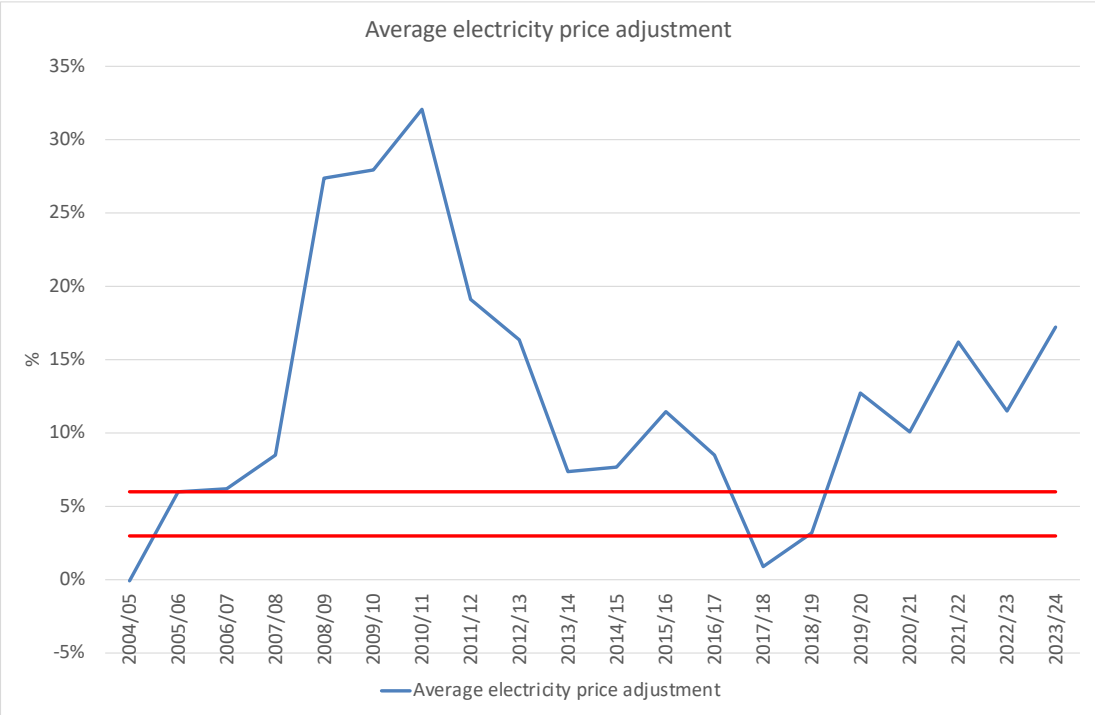
Therefore, does inflation-targeting result in lower inertia of inflation, lower pass-through effects from trade, and less sensitivity to demand-side movements? The results are positive but mixed. Inertia remains, while both supply- and demand-side variables related to government actions (i.e. the deficit and electricity supply) continue to exert inflationary pressure even in the stable inflation regime and therefore stable inflation periods. However, inflation volatility has been largely associated with periods of exchange rate volatility and has become much shorter since 2008. The exchange rate, in addition, has no impact during periods of stable inflation. Note that periods of inflation volatility and the associated exchange rate volatility do not disappear. Thus, inflation is still exposed to the effect of exchange rate volatility. But with a better-anchored inflation target, the effect is limited, with the periods of volatility being shorter.

3 Administered prices

The previous section highlighted the inflationary impact of government actions on both the demand and supply sides of the economy. On the supply side the analysis highlighted the impact of constrained electricity supply. Coinciding with the constrained electricity supply were increases in the price of electricity that far exceeded overall CPI and the 6% upper bound of the inflation target range (Figure 8). What is also notable from a comparison of Figures 3 and 8 is that periods when price increases accelerated coincided with periods of falling electricity current generation.

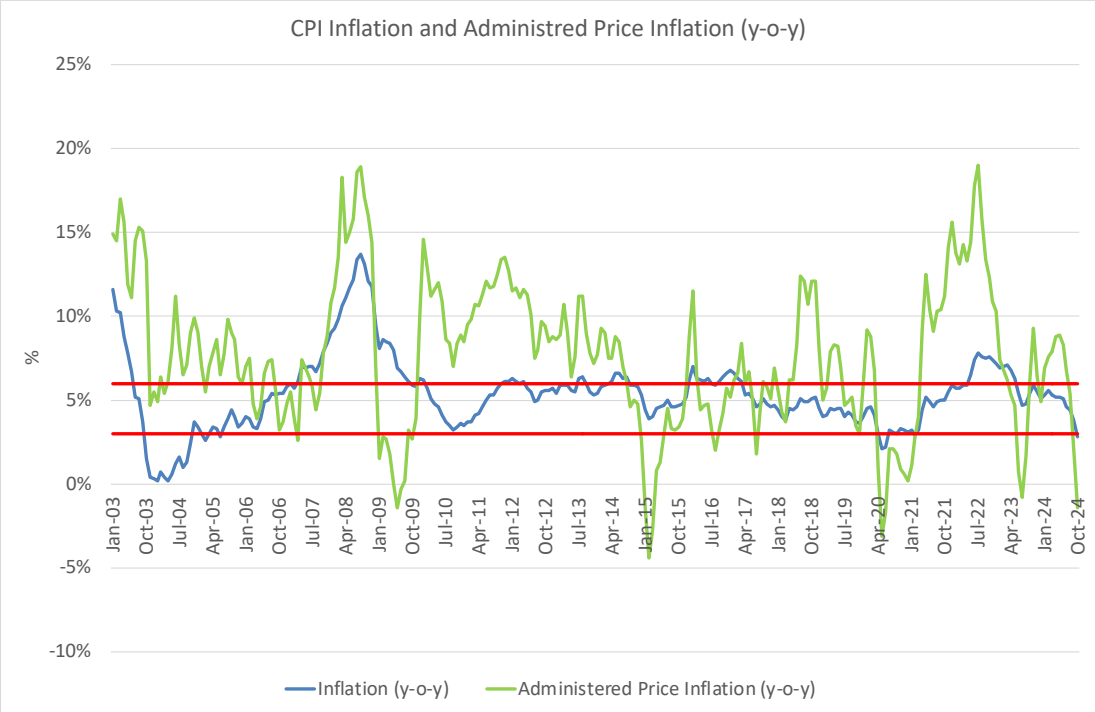
Electricity forms part of the administered prices that households and businesses pay, which means that electricity prices can exert inflationary pressure and render the achievement of the inflation target more difficult. StatsSA (2025: 9) defines an administered price as a ‘price of a product or service set directly or significantly influenced by the government, either directly or through its agencies, without relying on market forces’. Note that administered prices include prices in the private sector that are controlled by the government. Administered prices cover ‘water supply, refuse collection, sewage removal, assessment rates, electricity, gas in cylinders, paraffin, prescription medicine, dispensing fees, diesel, petrol, toll fees, motor vehicle licence and registration fees, train fares, local bus fares, primary education (public), secondary education (public), tertiary education (public) and university boarding fees’ (StatsSA 2025: 9). Figure 9 shows that administered price inflation is on average much higher than CPI and the 6% upper bound of the inflation target range. It is also significantly more volatile.

Figure 8: Average electricity price adjustment



Source: author's illustration based on data from Eskom (2025).

Figure 9: CPI and administered price inflation (year-on-year)



Source: author's illustration based on data from FRED (2025) and SARB (2024).

The discussion about the impact of administered prices is not new, with Schaling and Schussler (2001) and Du Plessis (2005) highlighting the impact of administered prices. In the early 2000s there was even a proposal to introduce inflation targets and tariff restraints on administered prices in the shareholder compacts of government with state-owned enterprises, a proposal that the Minister of Finance rejected (National Treasury n.d.: 2–3). More recently Loewald et al. (2022) studied the impact of administered prices. They used a Granger causality test to show bidirectional causation between CPI and administered price inflation. The estimation of the system model, contained in Equation 2, updates the sample of Loewald et al. (2022) to include the recent higher inflation periods of 2022 and 2023. The system model of CPI p_t and administered price inflation ap_t is estimated with full information maximum likelihood and general-to-specific methodology, the latter to ensure a parsimonious model containing only statistically significant lags. The results, contained in Table 3, show that administrative price inflation significantly impacts on CPI, although the effect dissipates after about half a year (see the bottom-left impulse response function in Figure 10).

$$p_t = \theta_{p1} + \theta_{p2}(L)p_{t-1} + +\theta_{p3}(L)ap_{t-1} + \varepsilon_t^p$$

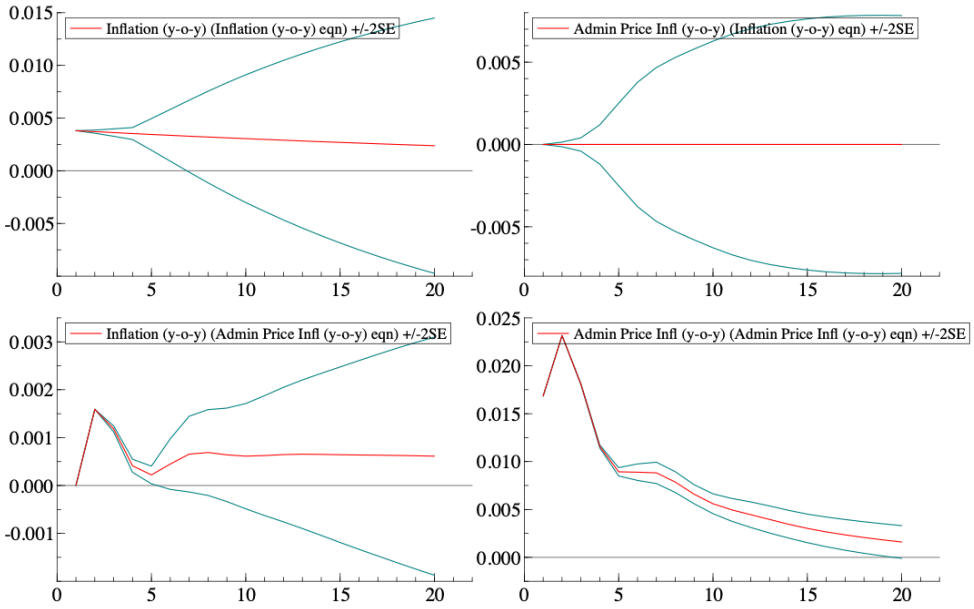
$$ap_t = \theta_{ap1} + \theta_{ap2}(L)p_{t-1} + +\theta_{ap3}(L)ap_{t-1} + \varepsilon_t^{ap} \quad [2]$$

Table 3: CPI and administered price inflation (2013m1 to 2024m8)

Equation for: inflation (y-o-y)	Coefficient	t-prob	
Inflation (y-o-y) $_{t-1}$	0.9756***	0.0000	
Admin price infl (y-o-y) $_{t-1}$	0.0945***	0.0000	
Admin price infl (y-o-y) $_{t-2}$	-0.1520***	0.0000	
Admin price infl (y-o-y) $_{t-3}$	0.0635***	0.0007	
Constant (unconstrained)	0.0008	0.4430	
Sigma	0.0038		
Equation for: admin price (y-o-y) infl	Coefficient	t-prob	
Admin price infl (y-o-y) $_{t-1}$	1.3753***	0.0000	
Admin price infl (y-o-y) $_{t-2}$	-0.8180***	0.0000	
Admin price infl (y-o-y) $_{t-3}$	0.3364***	0.0001	
Constant (unconstrained)	0.0069**	0.0179	
Sigma	0.0168		
Diagnostic test			prob
AR 1-7 test for inflation (y-o-y)	AR 1-7 =	1.59	[0.1434]
AR 1-7 test for admin price infl (y-o-y)	AR 1-7 =	1.66	[0.1253]
Vector SEM-AR 1-7 test	F(28,242) =	1.1525	[0.2792]
Vector ARCH 1-7 test	F(28,236) =	0.6634	[0.9027]
Vector normality test	Chi^2(4) =	5.8817	[0.2082]
Vector hetero test	F(72,338) =	1.0812	[0.3199]
LR test of overidentifying restrictions	Chi^2(17) =	24.315	[0.1111]

Source: author's calculations.

Figure 10: Impulse-response functions for CPI and administered price inflation



Source: author's illustration based on author's calculations.

4 Going from 6% to 3%

When inflation-targeting was introduced in 2000, the initial challenge was to contain inflation within the upper bound of 6%. In the period 2010 to 2024, inflation averaged 5.1%, and in 2017 SARB indicated that it would target the 4.5% midpoint of the 3%-to-6% target range. The question is whether the target should go from the 4.5% midpoint target in a range of 3% to 6%, to a midpoint target of 3% in a lower range.

4.1 Why go to a 3% target?

In a meeting of the US Federal Open Market Committee on 2–3 July 1996, then Federal Reserve Chair Alan Greenspan stated that 'price stability is that state in which expected changes in the general price level do not effectively alter business or household decisions' (Federal Reserve 1996: 51). Janet Yellen—at the time one of the board members of the Federal Reserve, and later Federal Reserve Chair and Secretary of the Treasury—then asked Greenspan to put a number on his statement, to which Greenspan responded that if inflation is properly measured, that number should be 0%. Yellen in turn responded that improperly measured, and based on literature, the number to pursue is 2%, and that this number should be approached slowly to look at what happens along the way. Although the Federal Reserve subsequently pursued this target, it did not make it public for 15 years. Only in 2012 did Greenspan's successor as Federal Reserve Chair, Ben Bernanke, make the inflation target of 2% public, having argued in favour of doing so since 2003.

Bernanke argued in favour of a target not lower than 2%, as a 2% target allowed the Federal Reserve room to still stimulate the economy in a low inflation period and not run into the zero lower bound problem for interest rates (Bernanke 2003; Mishkin and Kiley 2025; Wells 2024). This is one of a few long-standing arguments, going back almost three decades, in favour of pursuing not a 0% target, but rather a slightly positive inflation target (Debelle 1997; Leidy and Tokarick 1998). Other arguments include the quality and productivity bias in the measurement of relative price changes of goods over time,[3] as well as the existence of downward rigidity in prices and wages, in which case a little inflation allows for improved real adjustments in prices and wages without a nominal price or wage reduction. To this list Summers (2018) added that a low but still positive rate reduces the probability of falling into deflation, a danger that exists with a 0% target. The European Central Bank (2025) cites the same arguments for setting a 2% target.

Not all inflation-targeting central banks target 2%. Indeed, 2% is, with the exception of Switzerland, the lowest rate targeted.[4] The European Central Bank, Japan, Canada, the UK, New Zealand, and Peru have targets of 2%, while in Australia it is 2% to 3% (Figure 11) (Central Bank News 2025). Poland, Serbia, and Romania pursue a 2.5% target; Chile, Colombia, Hungary, and Thailand pursue a 3% target; for China it is approximately 3%. In Brazil it is 3.75%, 4% in India, 5% in Kenya, Malawi, United Republic of Tanzania, and Uganda, and 6% in Pakistan. Figure 11 shows that there are several countries with inflation targets lower than South Africa, many of which are also emerging-market economies. Some central banks also specify a margin around the point target. For instance, in Brazil, the target is 3.75% ± a margin of 1.5%, while in Colombia it is 3% ± a margin of 1%, and in India it is 4% ± a margin of 2% (for detail see Central Bank News 2025).

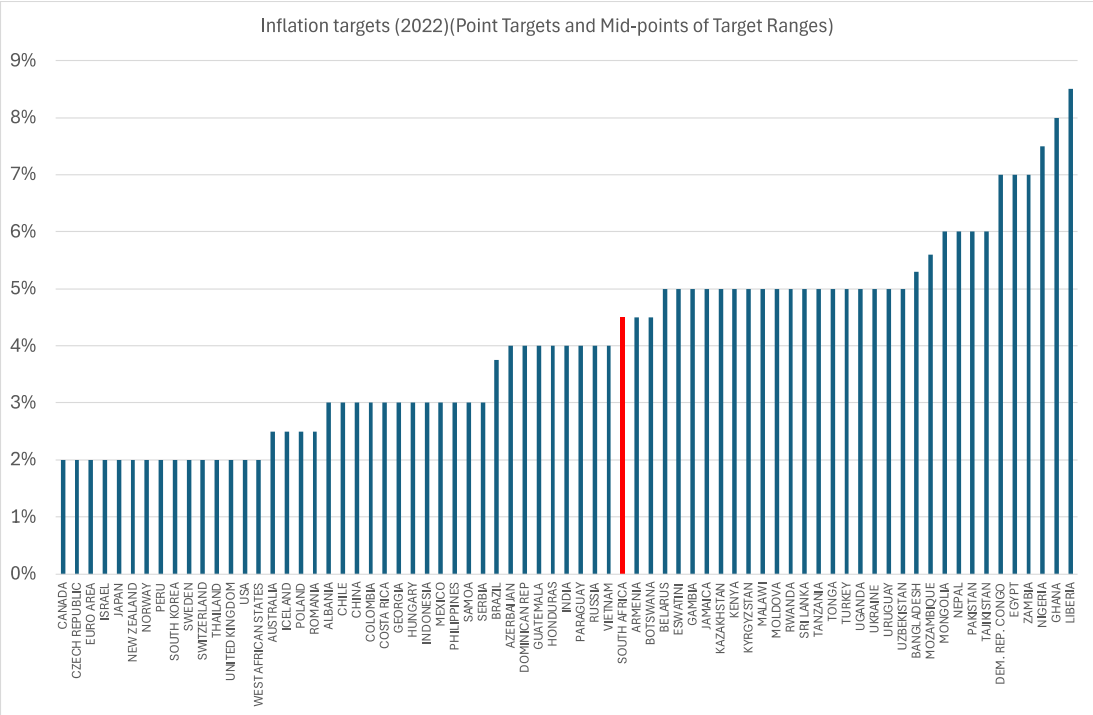
Arguably, the higher the inflation rate, the higher the probability that expected changes in the general price level will alter business or household decisions. At 5.1%, the average inflation rate in South Africa for the period 2010 to 2024, prices double every 14.1 years, while achieving a target of 3% extends the period of doubling to 24 years (it is 36 years with a 2% target reached). If, along with such a lowering, the variability of inflation can also be narrowed, businesses and households have more certainty regarding where the purchasing power of their money might end up in two or three decades. That should support businesses and households taking longer-term portfolio and real investment decisions while not significantly worrying about inflation—meaning inflation will not alter their long-term decisions.

A lower inflation target would also align more closely to South Africa's trading partners. As the discussion above has indicated, South African and US inflation are already relatively correlated, with US inflation acting as an indicator of one-year-ahead inflation expectations in South Africa. But while the movements of the South African and US inflation rates are to some extent aligned, their averages are not. Therefore, reducing the South African inflation target to 3% while the US is targeting 2% means that these averages will align more closely.

[3] The classic example is that of a computer today being much more powerful than, say, ten or 20 years ago: a computer today is not the same as a computer ten years ago, yet, in calculating inflation, we compare the price of a computer today with the price of a computer in the past.

[4] In the case of Switzerland, the target is set as less than 2%.

Figure 11: Inflation targets (2022): point targets and midpoints of target ranges



Note: values reflect the point targets or midpoints of target ranges. In the case of Switzerland, the target is < 2%, but it is marked as 2% on the graph.

Source: author's illustration based on data from Central Bank News (2025).

Furthermore, a lower inflation target will also align more closely with South Africa's largest trading partners and the world's most important reserve currencies.[5] Table 4 shows that South Africa's inflation target is higher than the target in any of its largest trading partners, while Figure 12 shows that South Africa's inflation rate has (with the exception of India in general, and Germany and the UK for the period 2022 to 2023) always exceeded the inflation rates of its largest trading partners by quite some margin. South Africa's largest trading partners, with the exception of Japan to the downside and India to the upside, have always achieved inflation rates between 1.5% and 3%. A target rate of 3% would align South Africa more closely with both the inflation targets and the actual inflation performance of its largest trading partners.[6]

[5] The largest trading partners are the European Union, China, the US, Japan, and India. This is also reflected in the composition of the effective exchange rate, which is the weighted average exchange rate of the rand based on trade in, and consumption of, manufactured goods between South Africa and its most important trading partners. Since 2 January 2015 the weighted average exchange rate of the rand has been calculated against 20 currencies (SARB 2020: 84). The weights of the five major currencies are in brackets: euro (30.68), Chinese yuan (24.53), US dollar (10.56), Japanese yen (4.95), Indian rupee (4.85). Index: 2015 = 100.

[6] A 3% target might also align more closely to current fears globally that future inflation rates in the US might be higher than the 2% target and even exceed 3%, given the inflationary effects expected from US tariffs announced in April 2025.

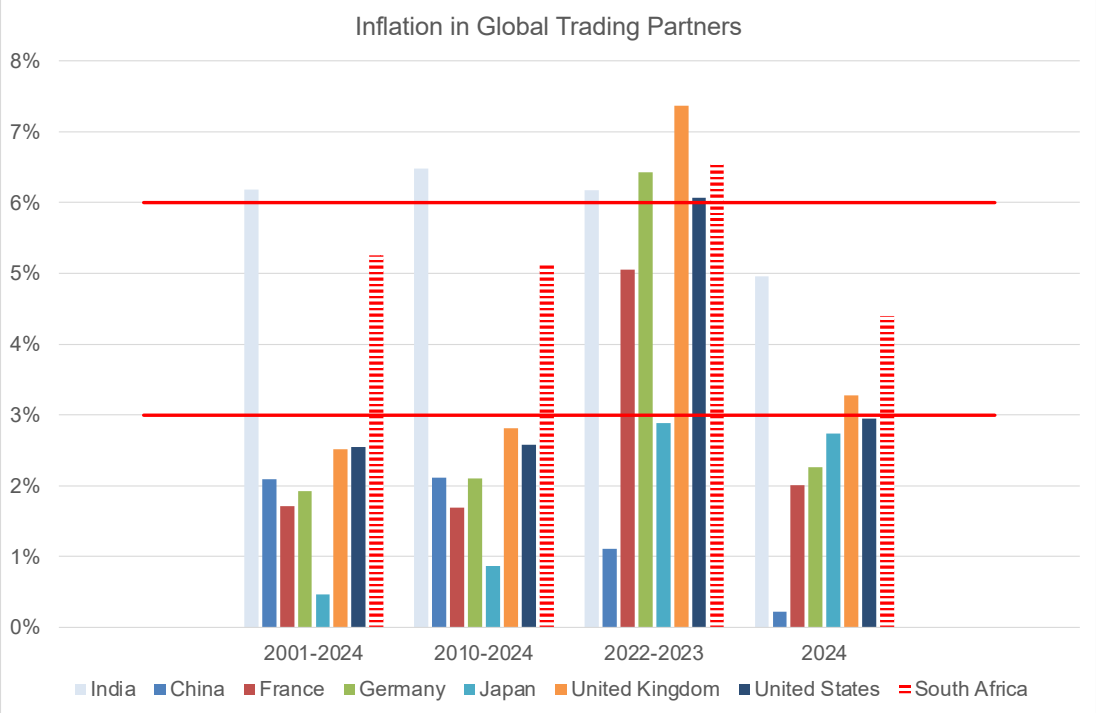
Table 4: Inflation targets of South Africa's largest trading partners

China[#]	Around 3%
Euro area	2%
India	4% +/-2%
Japan	2%
UK	2%
USA[##]	2%
South Africa	4.5% midpoint in range of 3% – 6%

Note: [#] set by the Chinese Communist Party National Congress, unchanged since 2015. [##] In August 2020 the Federal Reserve adopted a flexible form of inflation-targeting that seeks inflation that averages 2% over time.

Source: author's compilation based on data from Central Bank News (2025).

Figure 12: Inflation in South Africa's global trading partners



Source: author's illustration based on data from IMF (2025).

As discussed above, Ha, Ivanova, Ohnsorge et al. (2019: 46) have shown that especially in emerging-market and developing economies, a lower inflation rate is associated with lower inflation volatility. Lower inflation volatility would, all else equal, reduce nominal exchange rate volatility and therefore reduce exchange rate risk. Lower risk improves the investment and trade climate and therefore supports economic growth. This in turn aligns with SARB's mandate set in Section 224(1) of the South African Constitution, according to which 'the primary object of the South African Reserve Bank is to protect the value of the currency in the interest of balanced and sustainable economic growth in the Republic'. Note, however, that lower inflation and inflation volatility would be a necessary but not sufficient condition for higher investment and better growth, as growth and investment are dependent on a whole host of factors.

While the above constitutes an argument in favour of a lower inflation target rate than the current 4.5% midpoint of the target range, a related question is: why 3%, and not the 2% of most advanced

and many emerging-market economies? With inflation in emerging-market and developing economies that target inflation being significantly more volatile on average than in advanced economies, an inflation target should be low enough to not influence decision-making by businesses and households, but also not so low that with a more volatile rate inflation runs the risk of spending significant time in negative territory.

Also, note that Ha, Ivanova, Montiel et al. (2019: 338) found that compared with advanced economies, a significantly larger component of the variation in core inflation in emerging-market and developing economies is explained by global core price shocks—that is, 56.1% in emerging-market and developing economies versus 13.5% in advanced economies.

How to deal with such external price shocks, as well as with periods of excessive exchange rate volatility? As the discussion above indicates, periods of high inflation volatility (Regime 0) coincide with periods of high exchange rate volatility. Mishkin and Kiley (2025: 20–21) propose that emerging-market central banks should be wary of focusing too much on smoothing exchange rate movements as this might effectively displace the inflation target and turn the exchange rate into the nominal anchor. Nevertheless, in countries with high levels of foreign-denominated debt, a need exists to also attempt to smooth exchange rate movements. How the central bank reacts depends on the nature of the shock (Mishkin and Kiley 2025: 20). If it is a depreciation following portfolio outflows or a positive price shock to imported goods that might create cost-push inflation, the appropriate policy step is raising interest rates, while the opposite step is taken when the depreciation results from a deterioration in the terms of trade following a drop in export prices and thus a drop in aggregate demand. Mishkin and Kiley (2025: 20) therefore propose that following such events, central banks should follow Svensson (1997) and allow the inflation rate to temporarily deviate from target, but then use inflation-targeting to navigate the inflation rate back to target. They also argue that transparency will be important to explain policy decisions.

Unlike many other emerging-market economies, South Africa has relatively well-developed financial markets, which means that most debt, public and private, is rand-denominated. In addition, although its exports are still dominated by commodity exports, South Africa has a more diversified export basis than many other emerging-market economies, which are dependent on only one or two commodities. However, its relatively well-developed financial markets have exposed it to larger portfolio outflows during international financial instability when international investors rebalance portfolios in favour of less risky advanced-economy assets. In reaction to such exchange rate pressure, SARB largely follows an approach similar to the one Mishkin and Kiley (2025: 20) and Svensson (1997) propose. It allows temporary deviations of inflation and uses the explanation clause to guide inflation back to its target range. This would be a sound practice to continue. The inflation target should therefore allow room for such deviations, including to the downside of the inflation target and in the setting of the lower bound of the inflation target range.

Table 1 shows that the standard deviation of inflation during the period 2010 to 2024 was 1.2%. But as Table 5 shows, the 5.1% average inflation for the period 2010 to 2024 meant that with a one standard deviation increase in the inflation rate, the inflation rate already exceeded the upper bound of the inflation target range (although a one standard deviation *decrease* still fell well within the target range). Should monetary policy have succeeded in achieving the midpoint of the target range on average, and assuming the same 1.2% standard deviation held, both a one standard deviation increase and a one standard deviation decrease (68% of all inflation movements) would have fallen within the inflation target range. Two standard deviations of movement (i.e. movements of 2.4%), however, would have fallen outside the range and triggered the explanation clause.

Table 5: Inflation targets, averages, and standard deviations

	Upper bound	Lower bound
Policy target range	6.00%	3.00%
2010–24 average +/- standard deviation	6.38%	3.89%
4.5% midpoint +/- 2010–24 standard deviation	5.74%	3.26%
3% midpoint +/- 200–24 standard deviation	4.24%	1.76%
Target range with 3% midpoint	4.50%	1.50%

Source: author's calculations.

Should inflation volatility remain at a 1.2% standard deviation with average inflation falling to a midpoint of 3%, a lower inflation target range of 1.5% to 4.5% will be sufficient to encompass one standard deviation change. A 3% target will, however, also be sufficiently high to allow for a decrease of two standard deviations (thus encompassing 95% of all deviations) from average inflation at the 3% target without running the risk of inflation turning negative (two standard deviations will be equal to 2.4%, if inflation volatility remains at the 1.2% standard deviation registered for the period 2010 to 2024). Falling outside the 1.5% to 4.5% target range, such deviations will trigger the explanation clause, with SARB explaining how it will return inflation to the 3% midpoint target.

4.2 How to get to a 3% target?

To manage inflation expectations and move from the current midpoint target of 4.5% in an inflation target range of 3% to 6%, to a midpoint target of 3% in an inflation target range of 1.5% to 4.5%, would require a clear announcement by the Minister of Finance (recall that the government sets the target, while SARB has the instrument independence to pursue that target). Similar to Greenspan's suggestion in 1996, but also to the approach that SARB followed with the introduction of inflation-targeting in 2000, the lowering of the midpoint target of 4.5% to 3% should be done gradually. In 2000 the Minister of Finance announced a target range of 3% to 6% to be achieved by 2002, i.e. only two years later. A midpoint target of 3% can therefore be set for two to three years into the future. Whether intermediate targets for the inner years of this target should also be set is debatable, but approaching the 3% midpoint target should not be left to the last year of the medium term. Progress in approaching it should thus be registered annually over the two-to-three-year medium term to support the resetting of inflation expectations.

Reducing the midpoint target raises a question about the size of the sacrifice ratio, defined as the loss of output registered while the inflation rate is being reduced. A positive sacrifice ratio, meaning a reduction in both output and inflation, means that lowering average inflation might require higher unemployment and lower real GDP growth if the lower inflation anchor is not strong enough.

Loewald et al. (2022) argue that the sacrifice ratio in South Africa fell because (1) SARB's credibility improved, (2) inflation expectations became more forward-looking, and (3) exchange rate pass-through was lower. As the analysis above has shown, this is true during stable-inflation periods (Regime 1), when inflation is less volatile and exchange rate pass-through is statistically insignificant (although inflation inertia is still significant). The analysis above has furthermore shown that stable inflation periods have also been much longer in duration since the global financial crisis. Thus, overall, SARB's credibility is much improved.

But did the sacrifice ratio fall? There are various ways to calculate the sacrifice ratio. These include the trend analysis of Ball (1994) and the structural vector autoregression approach of Cecchetti and Rich (2001). Loewald et al. (2022) applied both these approaches to South Africa and found that the sacrifice ratio fell significantly. However, IMF (2024) data suggests that the sacrifice ratio in South Africa increased in the post-Covid era. Horn et al. (2025) and Du Rand et al. (2023) argue that the higher sacrifice ratio in the post-Covid era will render the achievement of a lower inflation target more difficult.

To consider whether the sacrifice ratio increased in the post-Covid era, the analysis below calculates a crude sacrifice ratio (inspired by Ball 1994) for episodes that fulfil the following simple algorithm:

- Inflation reduction: average inflation (inflation calculated year-on-year) for a period of two years falls by 1.5 percentage points year-on-year.
- Sacrificed output: average GDP growth (growth calculated year-on-year) for a year, minus average GDP growth (growth calculated year-on-year) for seven years, lagged by a quarter.

Table 6 presents the results and shows that the relationship between real GDP growth and inflation has not been constant. From November 2003 to May 2005, the sacrifice ratio was even negative. This was a period during which inflation fell while output growth accelerated. During the period January to July 2018, it was also negative but very small, virtually negligible. The two periods registering a non-negligible positive sacrifice ratio are October 2009 to June 2011 and March 2024 to July 2024. Note that these two periods both followed periods of global economic turmoil, the first in the aftermath of the global financial crisis and the second in the aftermath of the Covid crisis and the inflationary effect of the Russia-Ukraine war. In both periods both inflation and real economic growth slowed down. The positive sacrifice ratio in the second, post-Covid-19 period concurs with the IMF's (2024) findings.

Table 6: Sacrifice ratio

Nov 2003 – May 2005	-0.219
Oct 2009 – June 2011	0.894
Nov 2015 – Dec 2015	0.028
Jan 2018 – July 2018	-0.033
March 2024 – July 2024	0.344

Source: author's calculations.

However, accepting the sacrifice ratio at face value might be misleading. The sacrifice ratio, in essence, is a crude bivariate correlation measure. Therefore, as with correlation coefficients, the sacrifice ratio does not necessarily mean causation, with third factors possibly causing the movement in both (or, alternatively, the correlation being spurious). Being a bivariate measure, the sacrifice ratio also does not control for the movement in any other variables. The results contained in Table 2 do just that, measuring the relationship between inflation and output growth while controlling for other variables. It shows that although in the stable inflation periods (Regime 1) the relationship is positive and statistically significant, the coefficient is rather small—thus a case of a statistically significant but economically insignificant relationship. This suggests indeed a very flat Phillips curve, and therefore a very high sacrifice ratio (Hobijn et al. 2023), but only when considered in isolation from other variables in the model and therefore ignoring the shifts of the Phillips curve due to expectations. Of much more importance are inflation persistence, the effect of a constrained electricity supply, and the impact of the budget balance/GDP ratio and US inflation, both of which capture inflationary expectations.

Thus, far more important than the sacrifice ratio is the role of government, through both the supply and demand sides of the economy, and importantly its effect on expected inflation. This means that reducing the inflation target is not only the responsibility of SARB. The inflation target is set by the government in consultation with SARB, so the government needs to play a significant role. That role consists of coordinating fiscal and monetary policy and ensuring a monetary-led monetary-and-fiscal policy mix (Banerjee et al. 2023) by running a budget balance that supports lower inflation expectations. It also entails relieving the supply constraint imposed by a limited electricity supply and reining in administered price inflation.

Banerjee et al. (2023) demonstrate the different impacts of the budget balance/GDP ratio on inflation depending on the combination of fiscal prudence/profligacy and high/low levels of monetary independence. Fiscal policy is either prudent (where the government's primary balance reacts to an increase in the debt/GDP ratio) or profligate (where the primary balance does not react to an increase in the debt/GDP ratio), while monetary policy is either weakly or highly independent. Banerjee et al. (2023) define a monetary-led regime as a combination of a prudent fiscal policy and a highly independent monetary policy, while a fiscally led monetary-and-fiscal policy mix is characterized by a profligate fiscal policy and a weakly independent monetary policy. Two additional cases also exist: one that combines a prudent fiscal policy with a weakly independent central bank, and another that combines a profligate fiscal policy with a highly independent central bank. Of the four categories Banerjee et al. (2023) define, the latter might provide the closest description of South Africa after the global financial crisis, i.e. a fiscal policy with a primary balance that does not react to an increase in the debt/GDP ratio, and a highly independent monetary policy. Burger (2024) has shown that although South African fiscal policy since 2009 has reacted to an increase in the debt/GDP ratio by increasing the primary balance, that reaction has been too small to prevent the debt/GDP ratio from continuously increasing. In addition, Burger (2024) shows that fiscal policy displays signs of fiscal fatigue, meaning that the government finds it increasingly difficult to adjust revenue and expenditure to increase the primary balance/GDP ratio.[7] Thus, following Banerjee et al. (2023), the a priori expectation is that the budget balance/GDP ratio will put upward pressure on inflation and inflation expectations. The results in Table 2 and Table A2 in the Appendix bear this out.

With a sum of long-term parameters on the budget balance/GDP equal to -0.339 (i.e. the sum of -0.1764 and -0.1625 in Table 2), improving the budget balance/GDP ratio by one percentage point reduces inflation by 0.34%. Improving the budget balance will be a first step towards a prudent fiscal policy that will also support lower inflation. In addition, introducing the reduction of the inflation target to 3% over a two-to-three-year period allows the government to align its budgetary policy to support a reduction of the inflation target through medium-term budget policy-planning, a process that is also done with a three-year horizon. If this reduction in the budget balance/GDP ratio strengthens the reaction of the primary balance/GDP ratio to an increase in the debt/GDP ratio, and therefore establishes a sustainable fiscal policy, fiscal policy as a determinant of inflationary expectations will decline and strengthen the credibility of monetary policy. This in turn leads to a more monetary-led monetary-and-fiscal policy mix characterized by a prudent fiscal policy and a highly independent monetary policy, and subsequently a more anchored inflation target. Anchoring inflationary

[7] The political events surrounding the 2025–26 budget—the Minister of Finance's intention to raise the value added tax (VAT) rate by two percentage points in the 2025–26 and 2026–27 fiscal years, the government's reluctance to consider expenditure cuts as alternatives to increasing the VAT rate, and the minister's ultimate withdrawal of the VAT increase proposal—are indicative of fiscal fatigue.

expectations is therefore not only a monetary responsibility, given the impact of fiscal policy on expected inflation.

The analysis above also showed that improving electricity supply by 10% reduces inflation by 0.8% (given that the sum of long-term coefficients on electricity current generated equals -0.079; Table 2). In addition, Table 3 shows that administered price inflation is a significant determinant of CPI, at least in the short run. Reining in the effect of administered prices will require significant reform. As the discussion above has indicated, in the early 2000s there was even a proposal to introduce inflation targets and tariff restraints on administered prices. This would have been done through the shareholder compacts of the government with state-owned enterprises. The Minister of Finance, however, rejected the proposal (National Treasury n.d.: 2–3).

When state-owned enterprises set administered prices, they most often do so as monopolies or near-monopolies. Examples include electricity and freight tariffs. Although subject to regulation (e.g., the National Energy Regulator of South Africa regulates electricity prices), these monopolies often set their prices using a cost-reflective or cost-plus approach (Mohlakoana and Wolpe 2023: 14–18; Steyn 2004: 27). There is no competition driving prices down, and there are no incentives for state-owned enterprises to introduce efficiencies that will assist lowering prices. The setting of the petrol price operates in a similar fashion, with the price merely being adjusted monthly to reflect the change in the price of imported crude oil (Department of Mineral Resources and Energy 2025; StatsSA 2021). Administered price reform will therefore require market reforms that introduce competition and commence a process of transforming the most important administered prices into market-determined prices.[8]

5 Conclusion

The above analysis argues in favour of South Africa going from a 6% inflation rate to an average of 3%. Thus, the analysis argues in favour of reducing the inflation midpoint target from its current 4.5% to 3%. Doing so may also result in lower inflation volatility (relative to South Africa's trading partners), which will also translate into a less volatile nominal exchange rate, thereby reducing exchange rate risk for investment and trade.

The analysis has shown that since the global financial crisis, periods of higher inflation volatility have been much shorter. Thus, inflation has been relatively well anchored since the global financial crisis. But there are still shocks that coincide with periods of exchange rate volatility.

A 3% midpoint target in a 1.5%-to-4.5% inflation target range will result in inflation that is low enough not to affect the decisions of businesses and households, but also not so low that inflation risks

[8] In the electricity sector, the large-scale introduction of renewable energy providers that compete with Eskom in power generation and municipalities in power distribution will play such a role. A further step would be to separate Eskom power generation into separate power-generating companies operating individual power stations. Similar competition can be introduced in rail and port management, introducing private rail and port operators.

spending significant time in negative territory. It would also align with the inflation rates in South Africa's major trading partners.

From a policy implementation point, the question is how to reduce average inflation to a 3% target in the least economically disruptive manner. If inflation expectations are well anchored, meaning monetary policy is credible, announcing the target will suffice. But if they are not well anchored, the economy will need to be forced to a lower inflation rate through lower economic growth and higher unemployment. Once the lower inflation rate is reached, expected inflation will hopefully follow. This implies a positive sacrifice ratio used to lower expected inflation. As the discussion above indicates, recent analysis suggests that the sacrifice ratio may have increased in the aftermath of the Covid crisis. But, as the discussion also shows, the sacrifice ratio might be an overly simplistic indicator. It is a bivariate indicator, which, when considered in isolation, ignores third factors affecting inflation and inflation expectations. If expected inflation can adjust relatively fast, the size of the sacrifice ratio becomes immaterial to the adjustment to a lower inflation target (in simple terms, when the whole Phillips curve shifts due to a change in expectations, the slope of the curve becomes of lesser importance).

The analysis in this paper highlights several aspects regarding the extent to which inflation expectations are anchored in South Africa. Although average inflation has been on the higher side of the 3%-to-6% inflation target range, it nevertheless has fallen within the range. In addition, the much lower volatility of inflation since the mid-2000s compared with periods prior to the introduction of inflation-targeting suggests that SARB has been able to contain inflationary movements much more than in earlier periods. This indicates the better anchoring of expected inflation. Related to this, exchange rate pass-through also disappears in periods of stable inflation, although it temporarily pushes inflation outside its range in volatile periods. However, periods of volatile inflation were much shorter in the period 2010 to 2024 compared with the first years of inflation-targeting in 2000 to 2009. This indicates improved central bank credibility and trust in the ability and willingness of SARB to bring inflation back into its target range when an event pushes it outside the range. Therefore, inflation expectations are today much better anchored than at the time inflation-targeting was introduced in 2000. This also means that SARB is today in a much better position to reduce the inflation target (and hence average inflation) to a midpoint of 3% in a 1.5%-to-4.5% target range than it was to contain inflation within a 3%-to-6% target range in 2000. This implies a smaller sacrifice of output and employment needed to move to a 3% target (again, because the whole Phillips curve can move, reducing the sacrifice of growth needed, irrespective of the size of the sacrifice ratio suggested by the coefficient of growth in the Phillips curve).

Attention, then, needs to shift to what determines expected inflation. The budget balance/GDP ratio appears as quite an important driver of especially two-year-ahead expected inflation, particularly since 2012, when it became increasingly clear that fiscal policy was on an unsustainable path. Therefore, moving to a more sustainable path will reduce the importance of the budget balance/GDP ratio as a determinant of expected inflation, and better anchor expectations.

The role of fiscal policy and the government in supporting monetary policy also extends to the lowering of the level and volatility of administered price inflation and increasing the electricity supply. Therefore, SARB is not the only author of the going-from-6%-to-3% story. There is also a fiscal side to that story.

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Appendix

To establish the determinants of one-year-ahead and two-year-ahead expected inflation, two quarterly models, one for one-year-ahead expected inflation and the other for two-year-ahead expected inflation, were estimated using the general-to-specific methodology. The two general unrestricted models were estimated with four lags of all the variables included. The variables included were one-year or two-year expected inflation (year-on-year) as dependent variables, US inflation (year-on-year), South African inflation (year-on-year), administered price inflation (year-on-year), and the budget balance/GDP ratio. South African inflation was included as an explanatory variable of expected inflation since, as Horn et al. (2025) have shown, expected inflation and inflation in South Africa are correlated, indicating that South African inflation expectations are backward-looking. The model also included seasonal dummies and impulse indicator saturation dummies to control for outliers.

The final model for one-year-ahead expected inflation, estimated for 2004q1 to 2024q3, only retained the first lags of one-year-ahead expected inflation and US inflation, and three impulse dummies (Table A1). This suggested that US inflation, with a lag, influences one-year-ahead inflation expectations in South Africa. US inflation was therefore included in the Phillips curve model as the variable capturing expected inflationary pressure.

Table A1: One-year-ahead expected inflation (2004q1 to 2024q3)

	Coefficient	t-prob	Part.R^2	LT coeff
One-year-ahead inflation $_{t-1}$	0.9701	0.0000	0.9951	
US inflation $_{t-1}$	0.0571	0.0001	0.1744	1.9097
II#2005(1)	-0.0161	0.0000	0.3293	
II#2008(1)	0.0095	0.0005	0.1467	
II#2008(2)	0.0118	0.0000	0.2090	
Sigma	0.0026	RSS	0.0005	
Log-likelihood	379.48			
No. of observations	83	No. of parameters	5	
Mean	0.057	se	0.0100	
Diagnostic test			prob	
AR 1-5 test	F(5,73) =	0.9144	0.4766	
ARCH 1-4 test	F(4,75) =	1.9672	0.1082	
Normality test	Chi^2(2) =	4.7769	0.0918	
Hetero test	F(4,75) =	1.4320	0.2317	
RESET23 test	F(2,76) =	1.4004	0.2528	

Note: long-term coefficient (LT coeff) equals the coefficient of the independent variable divided by (1 - coefficients of the lag of one-year-ahead inflation).

Source: author's calculations.

The sample period for the two-year-ahead expected inflation model started for the period 2004q1 to 2024q3. For this sample period the budget balance/GDP ratio did not appear in the final model. The sample was successively shortened by adding a year to the start date. Then, from 2012q1 the budget balance/GDP ratio appeared as a statistically significant variable with the expected sign. (Estimates starting from 2013q1 and 2014q1 also contained the budget balance/GDP as a statistically significant variable. These were run to check for robustness, i.e. to ensure that the model running from 2012q1 was not an exception.) The appearance of the budget balance as statistically significant from 2012

onwards reflects the deteriorating fiscal situation that started in the aftermath of the global financial crisis (see Figure 5, which shows the widening budget balance/GDP ratio). The final model included the first lags of two-year-ahead expected inflation, inflation, and the budget balance/GDP ratio (Table A2). This suggested that the budget balance/GDP ratio, with a lag, influences two-year-ahead inflation expectations in South Africa. It was therefore also included in the Phillips curve model as the variable capturing expected inflationary pressure. Note that the lag of inflation is also a determinant of two-year-ahead expected inflation. This concurs with Horn et al. (2025), who as mentioned above have shown that expected inflation and inflation in South Africa are correlated. It therefore indicates that South African inflation expectations are to some extent backward-looking.

Table A2: Two-year-ahead expected inflation (2012q1 to 2024q3)

	Coefficient	t-prob	Part.R^2	LT coeff
Two-year-ahead inflation $_{t-1}$	0.9327	0.0000	0.9720	
Inflation $_{t-1}$	0.0448	0.0199	0.1078	0.6660
Budget balance/GDP $_{t-1}$	-0.0609	0.0250	0.1003	-0.9051
Sigma	0.0017	RSS	0.0001	
Log-likelihood	255.50			
No. of observations	51	No. of parameters	3	
Mean	0.055	se	0.005	
Diagnostic test			prob	
AR 1-5 test	F(4,44) =	0.4383	0.7802	
ARCH 1-4 test	F(4,43) =	0.7200	0.5830	
Normality test	Chi^2(2) =	0.4454	0.8004	
Hetero test	F(6,44) =	1.0683	0.3959	
RESET23 test	F(2,46) =	0.1067	0.8991	

Note: long-term coefficient (LT coeff) equals the coefficient of the independent variable divided by (1 - coefficients of the lag of two-year-ahead inflation).

Source: author's calculations.