



2024 MACROECONOMIC POLICY

a Review of Trends and Choices



national treasury

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FOREWORD

The National Treasury is responsible for designing and implementing South Africa's macroeconomic policy framework. While this is the first macroeconomic policy review the National Treasury is publishing separately, on-going assessment of the policy options available and the appropriateness of choices made have been part of the Medium Term Budget Policy Statements and Budget Reviews over time.

Macroeconomic policy reviews are done in several countries around the world and is becoming global best practice. The poor growth outcomes over the past 15 years, and the degree of contention about the role of macroeconomic policy in explaining them, are key reasons why the National Treasury has undertaken a review of macroeconomic policy over this period, focusing particularly on the goals and execution of fiscal and monetary policy. Though conducted by officials of the National Treasury, the review draws on a wide range of research, including working papers from SA-TIED¹, independent as well as commissioned research from subject matter experts as well as evidence from multilateral institutions.

The review demonstrates the critical importance of strong economic growth and the feedback loops to policy objectives and implementation. South Africa faces significant macroeconomic policy challenges, most notably the need to secure faster economic growth sustainably and in a way that is inclusive, that can only be solved on the basis of a shared diagnosis of the challenges we face and their root causes. This review has sought to create the basis for the essential conversations that will be needed to address the challenges it describes. It is not a conversation we intend to have once off and macroeconomic policy reviews like this will become more systematic and periodic in future.

This report summarises the findings of the technical reports in a manner that is intended to be accessible to non-specialists. Readers who desire a more detailed engagement on the key issues should read the technical reports which will be made available in due course.



Dr Duncan Pieterse

Director-General

¹ Available on the UNU-WIDER website <https://sa-tied.wider.unu.edu/>

EXECUTIVE SUMMARY

The National Treasury has responsibility for designing and implementing South Africa's macroeconomic policy framework. This requires on-going assessment of the policy options available, and the appropriateness of choices made. Drawing on a wide range of research, National Treasury has recently completed reviews of fiscal and monetary policy between the global financial crisis in 2008/09 and the Covid-19 pandemic in 2020/21.

By far the most important trend over this period is that economic growth has been low and falling, resulting in declining real per capita income. This is overwhelmingly likely to have increased the poverty rate despite increases in the social wage, and its social, political and economic consequences are hard to overstate.

The goals of macroeconomic policy

Fiscal policy consists of choices made about the level and composition of government spending, how tax revenues are raised, and whether and how much government borrows. Monetary policy relates to the supply of money, the management of inflation, and the supervision of the financial sector. For the purposes of this review, we define the goal of macroeconomic policy to be the achievement of *stable and sustained economic growth that facilitates a reduction in poverty and inequality*.

Sustained economic growth is a goal of macroeconomic policy, but the rate of growth is also a critical parameter governing macroeconomic policy choices. Fast-growing economies provide policy-makers with choices not available in slow-growing economies. Fast growth increases a country's creditworthiness and reduces sovereign risk, creating a virtuous cycle of confidence in the future, lower interest rates and higher investment that sustains fast growth. Slow growth, by contrast, creates a vicious cycle in which there are fewer resources available to resolve social challenges, creditworthiness worsens, pessimism takes hold, interest rates rise, and investment falls. This is the slow-growth trap South Africa faces. South Africa's growth has averaged just 1.75 per cent a year between 2010 and 2019, and even less if the Covid-affected years of 2020 and 2021 are included.

Although there are macroeconomic tools that can temporarily stimulate growth under some circumstances, none can be relied on to accelerate growth for a sustained period. Inappropriate use of these tools creates costly imbalances and distortions that eventually undermine growth. There is an important asymmetry between good and bad macroeconomic policy: good policy is a necessary-but-insufficient condition for sustained economic growth, while bad policies can by themselves undermine growth by increasing the risk of rapid inflation, a banking crisis, a default on sovereign debt, a currency crisis, or a combination of these.

Notwithstanding its disappointing growth performance, South Africa has not experienced any of the macroeconomic crises that have sometimes struck other developing countries: high and rising inflation, currency crises and/or financial and banking crises.

Fiscal Policy, growth and sustainability

A strategy of fiscal consolidation has been in place since 2013 and has sought to slow the rate of growth of spending, while also raising some taxes. This has not succeeded in stabilising debt levels, however, as a number of risks to the fiscal framework materialised, in particular the higher-than-budgeted outcomes of salary negotiations and the need to inject equity into state owned companies (SOCs) while GDP growth outcomes were lower than anticipated.

In 2008/09, gross loan debt amounted 26 per cent of GDP. By 2022/23, however, gross loan debt had increased more than sevenfold (71.1 per cent of GDP). The rapid increase in indebtedness, together with the slow pace of economic growth, has impacted on South Africa's creditworthiness, as reflected in deteriorating sovereign risk ratings. Increased sovereign risk has become a brake on growth by reducing investment.

Over the period under review, consolidated public spending has risen at an annual average rate of 8.3 per cent per year in nominal terms and at 2.7 per cent a year in real terms. This is faster than the rate of growth of the economy, so government spending has risen from 26.2 per cent of GDP in 2008/09 to 32.5 per cent in 2021/22.

Debt service costs rose from R50 billion a year in 2007/08 to a projected R400 billion in 2025/26. They are projected to continue to rise to 16 per cent of spending in 2025/26, or 20 per cent of all tax revenues. The rise in compensation spending and debt service costs has crowded out spending on capital good and infrastructure, the real value of which has fallen over the period under review. Nearly R310 billion has been deployed for the recapitalisation of SOCs since 2008/09.

Slow economic growth has meant that the reduction of poverty has slowed and may have reversed itself, largely because a smaller share of the working age population is in employment. The effect of these trends has been partly offset by continued growth in public spending on social grants, public employment programmes and the broader social wage. Total expenditure on the social wage rose by 9.2 per cent a year over the period under review, and was boosted by the dramatic expansion of the social relief of distress grant. Overall, however, the composition of public spending deteriorated, because of rapid growth in spending on debt service and compensation costs.

Between 2015/16 and 2019/20, government raised tax rates, including on personal income taxes and VAT, for the first time since 1994. The impact of these changes on revenue collection was limited, however. Slow economic growth combined with weakening administrative efficiency at SARS during the period of state capture, meant that revenues were generally lower than projected in the budget and the increase in tax rates only led to a slight increase in the tax-to-GDP ratio.

Though hard to measure, productivity in the public service has deteriorated in some key domains. This is particularly true of the largest SOCs, some of which were heavily impacted by state capture. The effect has been a reduction of the effectiveness and efficiency of public spending, and reinforcing the effects of an overall decline in investment levels across the economy.

Monetary policy, macroeconomic stability and growth

The central goal of monetary policy is the management of inflation. High and volatile inflation undermines living standards particularly for poor households, induces fear of the future, and creates significant economic distortions.

South Africa adopted an inflation targeting (IT) regime in 2000, with the SARB tasked with ensuring that inflation is between 3 and 6 per cent. This combination – a clear inflation target pursued by an independent central bank – is the most effective monetary regime for long-term growth in emerging economies.

In broad terms, IT has achieved its goals, with inflation being both lower and more predictable than in preceding periods. This has also allowed the SARB to keep policy rates low by historic standards., with the inflation-adjusted repo rate falling below zero for much of the time. Nevertheless, inflation rates are higher than those of South Africa's peers and trading partners, with adverse effects on competitiveness and putting pressure on the exchange rate.

A key challenge has been the inflationary pressures generated by administrative prices. The management of inflation has also been complicated by fiscal policies that have supported demand without a commensurate supply response.

Policy implications

As a policy objective, “fiscal sustainability” is appropriate, and in line with responsible stewardship of the country’s public finances. However, in a context where existing strategies have not stabilised the debt ratio, adoption of a fiscal rule that commits government to achieving fiscal sustainability in a transparent and accountable way should be closely considered. In addition, government needs to strengthen:

- the infrastructure planning and implementation environment to improve the credibility of infrastructure budgets and their outcomes;
- the role of the contingency reserve as a risk management instrument; and
- the framework governing the size, mechanics and conditions for the recapitalisation of SOCs.

While the SARB has shown its ability to stabilise inflation and anchor expectations, there is a case for revisiting the current target given the adverse impact of inflation on the poor and inflation differentials with our peers and trading partners. Given the interaction between fiscal decisions and the management of monetary policy, the SARB should discuss more explicitly the impact of fiscal policy on its inflation and growth projections.

Concluding remarks

Sound macroeconomic policy is a necessary-but-insufficient condition for sustained economic growth. Its importance is all the greater in small, open economies whose resilience in the face of external shocks can be undermined by inappropriate and unsustainable macroeconomic policies. Indeed, when policies depart too far from the path of sustainability, they can themselves undermine and generate

self-induced crises that undermine long-term growth prospects. Even in the absence of crisis, rising risk reduces investment and growth.

South Africa faces significant macroeconomic policy challenges, most notably the interlinked needs to secure faster economic growth and to return to a sustainable fiscal path. The legacy of having spent a long period in which fiscal policy was unsustainable complicates this challenge because of the build-up of risks and the need to manage some of the costs and distributional effects of the needed adjustments. Unsustainable fiscal policy has also forced monetary policy to work harder to balance macroeconomic risks to support the economy. These are significant challenges – technical, economic and political – that can only be solved on the basis of a shared diagnosis of the challenges we face and their root causes. This review has sought to create the basis for the essential conversations that will be needed to address the challenges it describes.

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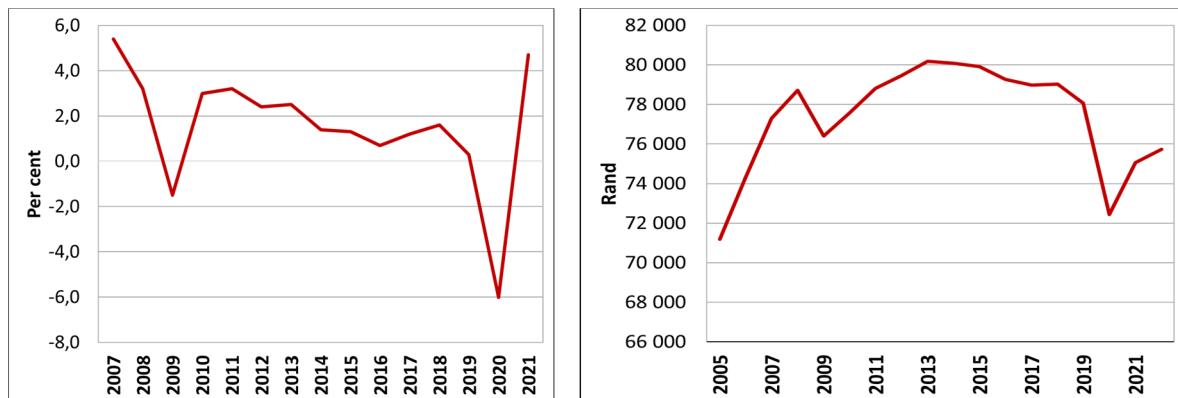
MACROECONOMIC POLICY: A REVIEW OF TRENDS AND CHOICES

INTRODUCTION

The National Treasury has responsibility for designing and implementing South Africa's macroeconomic policy framework. This requires on-going assessment of the policy options available and the appropriateness of choices made. To this end, National Treasury has recently completed reviews of fiscal and monetary policy between the global financial crisis in 2008/09 and the Covid-19 emergency in 2020/21. Though conducted by officials of the National Treasury, these reviews draw on a wide range of research.² This report consolidates and summarises the technical reports, and seeks to make the conclusions as accessible as possible to as wide an audience as possible. It should be noted that in some areas, discussion of trends does not stick precisely to the start and end dates of the period under review, since developments before or after those dates may be relevant for a fuller understanding of the trends.

South Africa's macroeconomic policy framework must ensure that it is able to respond to short-term shocks and longer-term trends in a dynamic and uncertain global economy, while managing the deep social and economic consequences of the country's core challenges of unemployment, poverty and inequality. This must be done in a context of demographic changes, structurally lower levels of natural resources rents, and an economy increasingly dominated by services. South Africa also faces high risks from climate change and is expected to warm at twice the rate of global warming, making climate risk more intense and more unpredictable. That said, by far the most important trend of the past 15 years is that the rate of economic growth has been both low and falling. Indeed, having fallen below the rate of growth of the population, real per capita GDP has been declining since 2013 (Figure 1). Though there is debate about the reasons for this trend, its economic, social and political importance cannot be overstated. In the context of high levels of unemployment and inequality, a decline in per capita GDP is overwhelmingly likely to mean that the share of the population in poverty – last measured in 2011 by StatsSA at around 55 per cent – will have increased, although increases in social support over that period will have offset at least some of this effect.

² See consolidated list of sources at the conclusion of this report.

Figure 1: Year on year GDP growth (LHS) and real GDP per capita (RHS)

Source: SARB data

Questions are often asked about whether and to what extent the growth slowdown South Africa has experienced can be explained by macroeconomic policy choices, by microeconomic factors, or by other kinds of challenges such as governance failures and corruption. These are critical questions because the various agencies responsible for macroeconomic policy often face criticism for their choices, even as the effects of other kinds of constraints and challenges are underestimated. Thus, for some critics of macroeconomic policy, fiscal and monetary policy have been unduly and inappropriately tight and have been a brake on growth that might have been faster had the fiscal framework allowed government to spend more and/or if the Reserve Bank had tolerated higher levels of inflation. This focus on aggregate demand stimulation often ignores critical supply-side constraints, such as the inadequate electricity supply, logistical constraints, and skills scarcities, as explanations for bad growth outcomes. For other critics, by contrast, the rapid build-up of public sector debt – which, like the decline in growth, is a defining trend for the period under review – is a consequence of a set of macroeconomic policies that have created significant macroeconomic risk, and which have, therefore, indirectly resulted in higher interest rates, reduced investment, and slower growth. For these critics, it is the failure to rein in public spending, and not a failure of the public sector to borrow even more than it did, that is the link between macroeconomic policy and the low levels of economic growth. These critics, however, sometimes seem to imply that growth should be pursued without any regard to the vital need to address poverty and inequality, the depth of which constrain growth both because of their direct economic effects and because they increase political risk.

The poor growth outcomes over the past 15 years, and the degree of contention about the role of macroeconomic policy in explaining them, are key reasons why the National Treasury has undertaken a review of macroeconomic policy over this period. These assessments are contained in three technical reports that lay out the key facts about economic performance over the period, focusing particularly on the goals and execution of fiscal and monetary policy. This report summarises the findings of those papers in a manner that is intended to be accessible to non-specialists. Readers who desire a more detailed engagement on the key issues should read the technical reports which will be made available in due course. Before setting out the findings and conclusions of those reports, however, it is important to set out the role and goals of macroeconomic policy to contextualise the argument of the rest of the report and the technical papers.

The goals of macroeconomic policy

There are two main components of macroeconomic policy: fiscal policy and monetary policy. Fiscal policy consists of choices made about the level and composition of government spending, how tax revenues are raised, and whether and how much to borrow. Monetary policy relates to the supply of money, the management of inflation, and the supervision of the financial sector. Each of these elements of fiscal and monetary policy has goals of its own, and there are many different ways in which they might be combined to frame a single goal for macroeconomic policy as a whole. To make assessment of the performance of macroeconomic policy possible, however, it is necessary to set out a clear, generally accessible statement of the main goals of macroeconomic policy in the South African context. Distilling decades of economic literature and policy practice, we take this to be the achievement of *stable and sustained economic growth that facilitates a reduction in poverty and inequality*.

It is worth emphasising the various terms here: though economic growth is the goal, it is just as important that growth is *sustained* over the medium and long term, and that economic *stability* is provided by avoiding self-induced macroeconomic crises and ensuring that the country retains the macroeconomic space needed to respond to any external shocks over which it has no control. Critically, sustained and stable growth must also *reduce poverty and inequality*, both directly, by providing public services and social protection, and indirectly, by ensuring economic activity becomes increasingly inclusive through job-creation. To the extent that poverty and inequality constitute brakes on growth, effective policy interventions and public spending that addresses them also helps facilitate faster growth.

These goals are easier to articulate than to achieve, as South Africa's disappointing growth performance over the period under review demonstrates. This will be discussed in greater depth, but it is worth making two points about the nature of these goals. The first is that there are trade-offs between some of them. Sustaining high levels of growth, for example, requires maintaining high levels of investment in physical and human capital. This, in turn, implies that society as a whole must constrain consumption so that resources can be directed to the investment that is needed to sustain growth. This is the core of the strategy adopted by East Asia's developmental states, some of which have achieved investment rates approaching 50 per cent of GDP for sustained periods. Adopting such a strategy, however, may not be compatible with a strategy that emphasises the transfer of resources to households aimed at raising their consumption. It is possible, in fast growing economies, for both investment and consumption to rise in absolute terms; it is not possible, however, for consumption and investment to simultaneously rise as a share of the economy. In a slow growing economy, in other words, there is a trade-off between investment and consumption, and rising levels of consumption will reduce the quantum of resources available for investment.

The second point is that, while government plays a significant role in investment in human and physical capital, as well as in the reduction in poverty and inequality, the *quality* of public spending in achieving these goals is at least as important as the amount that it spends on them. If the wrong priorities are chosen, or if spending is ineffective and inefficient, or if corruption siphons resources away from priorities, the impact of public spending on growth (and on reducing poverty and inequality) is reduced, and may even be negative, even if the amounts spent to achieve these goals are rising. In

general, fiscal policy is concerned with how much is spent, but also the efficacy of that spending depends on its quality of spending, not just its quantity.

Further, central banks, such as the South African Reserve Bank (SARB) play a critical role in public policy, and have the principal goal, whether explicitly stated or not, of implementing policy that ensures that inflation is moderate and predictable. This protects households –especially poor households – from the impoverishing and regressive effects of inflation while facilitating growth by ensuring predictable prices, eliminating inflation-induced distortions, anchoring the expectations of all economic agents, and mitigating key macroeconomic risks when imbalances exist.

Macroeconomic policy and growth

Economic growth is a measure of the rate of increase of the output of goods and services. This is made possible by and is equivalent to the growth in an economy's productive capacity, which is driven by the accumulation of physical and human capital and the adoption of more efficient technologies. An acceleration of growth, therefore, is a result of the increased pace of accumulation of physical and human capital and/or the deployment of more efficient technologies, while a deceleration of growth would reflect a slowing in the accumulation of human and physical capital and/or a slowing of the rate of growth or productivity. If an economy enters a period of sustained negative growth, this is an indication that the stock of human and physical capital is declining or that technologies being deployed are less efficient than those previously in use.

Sustained economic growth that is higher than population growth is a goal of macroeconomic policy, but it is also a critical parameter governing macroeconomic policy choices: an economy that is growing quickly provides policy-makers with options that are not available to them when an economy stagnates since rapid growth produces more resources to address social and economic challenges. Faster growth also reduces the burden of existing debt and increases the capacity of an economy to service future debt. As a result, high growth tends to increase a country's creditworthiness and reduce sovereign risk, reducing interest rates, lowering the cost of capital and, thereby, increasing the investment that sustains fast growth. This is a virtuous growth cycle that feeds on itself. Fast-growing economies can make policy mistakes, but they face a wider, and more attractive, range of policy choices. Slow growth, by contrast, creates a vicious cycle in which there are fewer resources available to resolve challenges, debt metrics and creditworthiness worsen, while unemployment levels rise which increases poverty and reduces savings further. All of this results in increased sovereign risk and higher interest rates, leading to falling investment rates which reinforces the slow growth path. This is the slow-growth trap South Africa faces.

There are few macroeconomic tools available to policy-makers that can be relied on to accelerate growth directly and for a sustained period. Macroeconomic tools can provide temporary boosts to growth under some circumstances, but they cannot be used permanently without creating imbalances and distortions that eventually undermine growth. Worse, the impact of macroeconomic policy on an economy's growth performance is asymmetric: sound macroeconomic policy is a necessary-but-insufficient condition for sustained economic growth, but bad macroeconomic policies can by themselves undermine growth by increasing the risk that a disruptive macroeconomic event or crisis will occur. This might take the form of rapid inflation, a banking crisis, defaulting on sovereign debt, a currency crisis, or a combination of these. Good macroeconomic policy raises long-term growth by

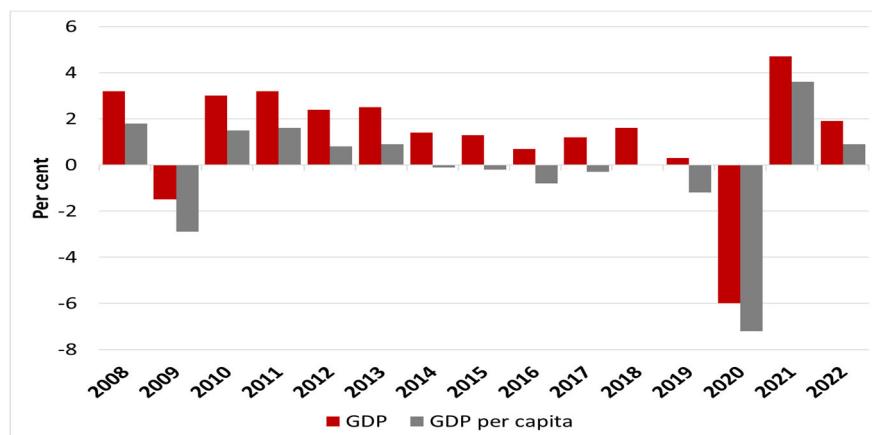
reducing the risk of crises of this kind, by giving confidence to economic actors about the future state of the economy, and by allocating resources to critical economic priorities. Bad policy, by contrast, undermines confidence in the future, resulting in less investment and higher interest rates. This is the central reason why macroeconomic policy must be sustainable and must be perceived to be so.

Framed in this way, the chief goal of monetary policy is to minimise the risk of disruptive inflationary episodes while ensuring that the financial system can fulfil its principal functions of marshalling and directing capital to economic opportunities. The chief goal of fiscal policy, on the other hand, is to ensure that there are sufficient resources allocated to public spending priorities while ensuring that government's fiscal position is sustainable. This means that government spending must not require excessively high levels of taxation (which tends to erode tax bases and create economic distortions) or depend on the accumulation of excessive debt (which tends to increase sovereign risk, raise risk premia and interest rates, and reduce investment rates). Fiscal sustainability ensures that adequate public goods and services are provided while broader macroeconomic objectives are supported over the long-term. Policy-makers, in other words, need to maintain appropriate levels of spending to increase the economy's productive capacity and support social objectives, while being mindful to not spend, tax or borrow more than the economy can sustainably support.

HAS MACROECONOMIC POLICY DELIVERED ON ITS OBJECTIVES?

Since the late 2000s, South Africa's growth performance has been disappointing, averaging just 1.75 per cent a year between 2010 and 2019, and even less if the Covid-affected years of 2020 and 2021 are included. Figure 2 shows how economic growth and economic growth in per capita are related. The net result of poor growth outcomes in the face of a growing population is that per capita incomes are lower than in 2013. See also Figure 1. In addition, long-run, low economic growth has materially stunted the economy's ability to generate jobs.

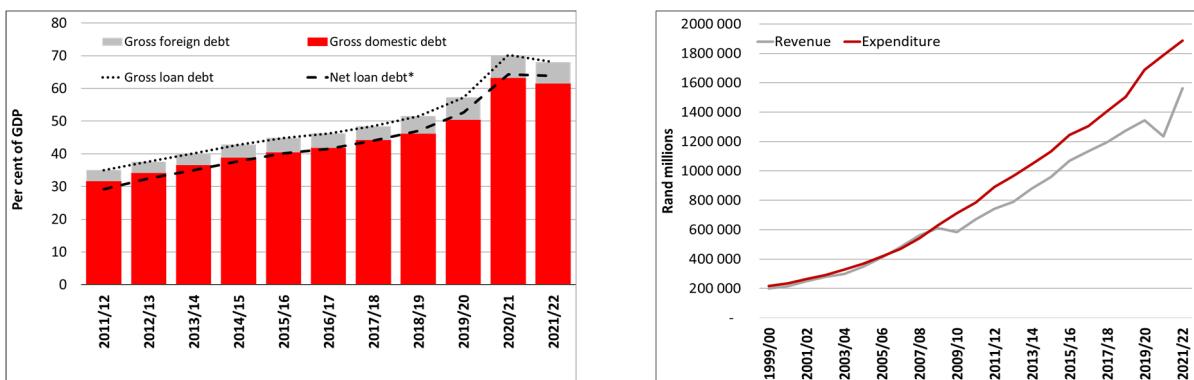
Figure 2: GDP and GDP per capita growth



Source: SARB

Apart from the economy's poor growth performance, perhaps the most important macroeconomic trend of the period under review is the rapid rise in the debt stock in both absolute terms and in comparison to GDP (Figure 3, LHS). The rise in the debt ratio reflects the fact that after the global financial crisis in the late 2000s, a large gap opened up between the tax revenues that government receives and the amount it spends each year (Figure 3, RHS).

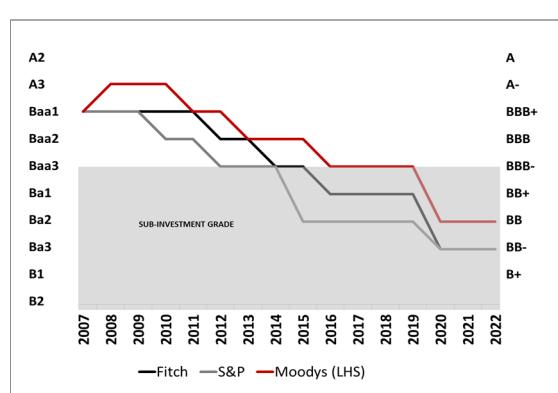
Figure 3: South Africa's debt ratio (LHS) and consolidated government revenue and expenditure (RHS)



Source: National Treasury

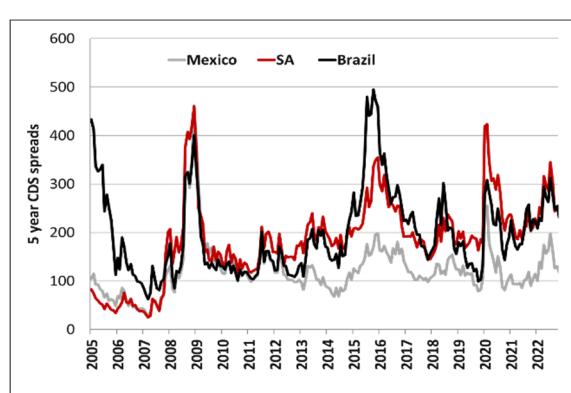
In 2008/09, gross loan debt amounted to R627 billion or 26 per cent of GDP, with net loan debt at R526 billion (21.8 per cent of GDP). By 2022/23, however, gross loan debt had grown more than sevenfold to R4.73 trillion (71.1 per cent of GDP). The extent of the increase in the stock of debt, the pace at which this has been accumulated, together with the slow pace of economic growth, has impacted on South Africa's creditworthiness, as reflected in deteriorating sovereign risk ratings (Figure 4). High credit default swap premia reflect the cost lenders incur to insure themselves against that outcome, and are a measure of perceived risk of sovereign default (Figure 5). This is the key reason why interest rates are high by global standards (Figure 6). As described below, increased concerns about sovereign risk and SA's creditworthiness are a brake on future growth.

Figure 4: SA's sovereign risk ratings

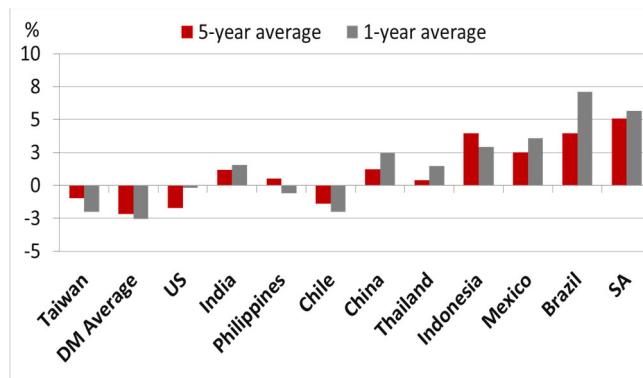


Source: Ratings agencies

Figure 5: CDS spreads against US benchmarks, various countries



Source: Bloomberg

Figure 6: Average real interest rates: South Africa vs peer countries 10-year bond yields

Source: Bloomberg

To mitigate the rise in debt, fiscal consolidation – which seeks to reduce the differential between government’s revenues and its spending – has been a policy goal since 2013. This has been pursued primarily by slowing the rate of growth of spending, though some taxes have also been increased. A key tool for achieving this has been the imposition of pre-announced expenditure ceilings below which government’s spending must fall. This strategy – which has often been mischaracterised as “austerity” and criticised for itself being the cause of slowing growth – has not succeeded in stabilising debt levels, however. This is partly because the measures put in place to stabilise debt have not always been appropriately calibrated to the goal, partly because economic growth has tended to be slower than policy-makers have anticipated, and partly because a range of risks to the fiscal framework have materialised. Most notably, negotiations with organised labour have often resulted in cost-of-living adjustments that inflate the wage bill. In addition, the necessity of injecting equity into state owned companies (SOCs) has also resulted in higher-than-budgeted spending. These dynamics have meant that, despite largely containing public spending below the expenditure ceiling since the announcement of the policy in 2012/13 (Table 1), debt has not yet stabilised.

Table 1: Spending outcomes compared to the spending ceiling (2012/13 to 2020/21)

R million	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
2013 Budget Review	864 658	942 000	1 015 718	1 092 747					
2014 Budget Review		935 071	1 014 222	1 091 253	1 168 284				
2015 Budget Review			1 006 905	1 081 214	1 152 833	1 250 086			
2016 Budget Review				1 076 705	1 152 833	1 240 086	1 339 422		
2017 Budget Review					1 144 225	1 229 833	1 323 564	1 435 418	
2018 Budget Review						1 232 678	1 315 002	1 416 597	1 523 762
2019 Budget Review							1 310 156	1 430 595	1 525 052
2020 Budget Review								1 409 244	1 457 703
Outcomes	864 658	935 071	1 001 737	1 074 970	1 141 879	1 225 409	1 307 112	1 418 456	1 487 399

Source: National Treasury

Apart from its adverse effect on macroeconomic aggregates, slow economic growth has meant that the reduction of poverty has slowed and may have reversed itself, largely because a smaller share of the working age population is in employment. As Figure 7 shows, the percentage of adults in employment has fallen from around 45 per cent in 2008 to around 38 per cent in 2022. This in turn has meant an increase in poverty rates Table 2: Poverty headcounts.

Figure 7: Percentage of working age adults in employment

Source: StatsSA

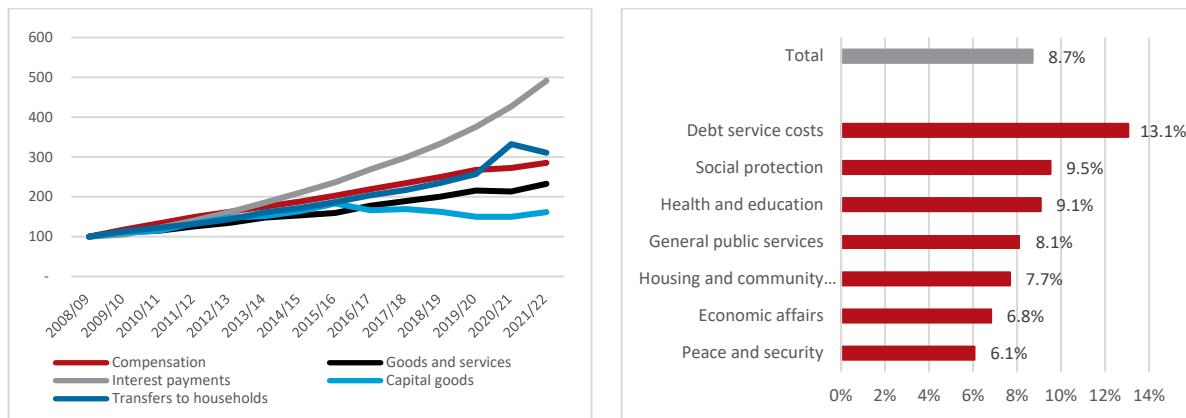
The low number of working-age adults who have jobs sets South Africa apart from other emerging economies, where large numbers of adults are employed in the informal and agricultural sectors. These sectors are also relatively unproductive in South Africa, ensuring that incomes are low and have only limited effects on reducing poverty. Compounding the problem are rigidities in the labour market; those who have a job tend to keep it, while those out of a job find it very difficult to transition into employment. Ultimately, economic growth is essential but insufficient to improve employment rates at the pace needed. To make significant inroads into South Africa's unemployment problem, microeconomic and labour market structural challenges need to be addressed as well.

Table 2: Poverty headcounts

Poverty headcounts	2006	2009	2011	2015
Percentage of the population below the Upper-bound Poverty Line (R992pp per month, in 2015 prices)	66,6%	62,1%	53,2%	55,5%
Percentage of the population below the Lower-bound Poverty Line (R647pp per month, in 2015 prices)	51,0%	47,6%	36,4%	40,0%
Percentage of the population living in extreme poverty (R441pp per month, in 2015 prices)	28,4%	33,5%	21,4%	25,2%

Source: StatsSA

The rise in poverty, largely driven by reduced per capita employment, has been partly offset by continued growth in public spending on social grants, public employment programmes and the broader social wage. Total expenditure on the social wage rose by 9.2 per cent per year over the period under review, and was boosted by the expansion of the social relief of distress grant of R350 per month to over 6.4 million people during the period May to November 2020, at the height of the Covid-19 pandemic. The result is that spending on social development has grown quickly since 2008/09 (at an average annual rate of growth of 9.5 per cent), far faster than the rate of growth of aggregate spending (8.7 per cent a year), as reflected in Figure 8. Overall, however, the composition of public spending deteriorated, because of rapid growth in spending on debt service and compensation costs, with the latter driven by increases in average remuneration that exceeded both inflation and the rate of growth of nominal GDP (Figure 8). The real value of spending on capital goods has fallen over the period under review, while a total of nearly R310 billion has been deployed for the recapitalisation of SOCs since 2008/09. Some 70 per cent of this went to Eskom, with most of the rest being allocated to SAA (Table 3).

Figure 8: Changes in spending by economic classification (LHS) and functional group (RHS): 2008/09 to 2021/22

Source: National Treasury

Table 3: Recapitalisation of SOCs (2008/09 to 2021/22)

R billion	Eskom	South African Airways	Denel	South African Express	South African Broadcasting Corporation	Land and Agricultural Development Bank of South Africa	South African Special Risks Insurance Association (SASRIA)	Total bailouts
2008/09	10.0	–	–	0.4	–	–	–	10.4
2009/10	30.0	1.5	–	–	–	–	–	31.5
2010/11	20.0	–	–	–	–	–	–	20.0
2011/12	–	–	–	–	–	–	–	–
2012/13	0.7	–	0.4	–	–	–	–	1.1
2013/14	–	–	–	–	–	–	–	–
2014/15	–	–	–	–	–	–	–	–
2015/16	23.0	–	–	–	–	–	–	23.0
2016/17	–	–	–	–	–	–	–	–
2017/18	–	10.0	–	–	–	–	–	10.0
2018/19	–	5.0	–	1.2	–	–	–	6.2
2019/20	49.0	5.5	1.8	0.3	3.2	–	–	59.8
2020/21	56.0	21.0	0.6	0.2	–	3.0	–	80.7
2021/22	31.7	4.3	3.0	–	–	5.0	22.0	66.0
Total	220.4	47.3	5.8	2.1	3.2	8.0	22.0	308.7

Source: National Treasury

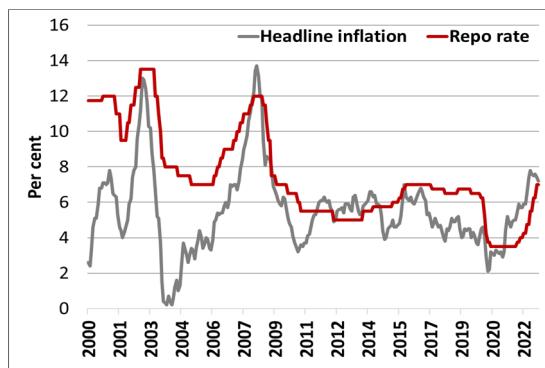
Macroeconomic policy and stability

Though South Africa's disappointing growth performance is the most significant feature of macroeconomic performance in the period under review (and the main reason for the correspondingly disappointing performance in employment growth and poverty reduction), the period has not been characterised by any of the macroeconomic crises that may strike developing countries: high and rising inflation, currency crises and/or financial and banking crises. Crises of this kind create enormous social and economic costs, so avoiding them is an important goal of macroeconomic policy.

Nor is it just a matter of having avoided crises: a key feature of the past 15 years is the moderation of volatility in most macroeconomic aggregates. This is certainly true of inflation rates, which have fallen over the period while also becoming less volatile. This, in turn, has allowed the SARB to lower its policy rate and to make smaller, less frequent adjustments to it (Figure 9).

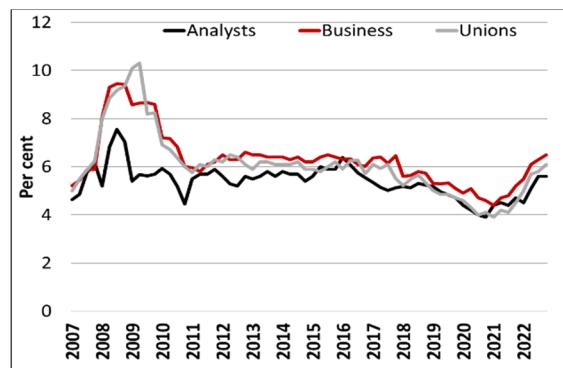
The extent to which lower interest rates are a result of policy choices or an artefact of global disinflationary trends (which coincided with the adoption of inflation targeting regimes across the world) may be debated, but the reduction in inflation has protected the poor from the regressive effects of high inflation, while the reduction in inflation volatility and inflation expectations have helped moderate the risk premium on sovereign debt. Two important caveats need to be made, however: (i) administered prices (i.e. those prices over which policy-makers have some control) have risen more quickly than other prices, and (ii) South Africa still has higher inflation rates than most of its trading partners. Nevertheless, monetary policy has ensured reasonably predictable changes in the price level, which reduces the impact of what can otherwise be a destabilising source of macroeconomic uncertainty.

Figure 9: Headline inflation and the repo rate



Source: SARB and StatsSA

Figure 10: Inflation expectations for a year ahead

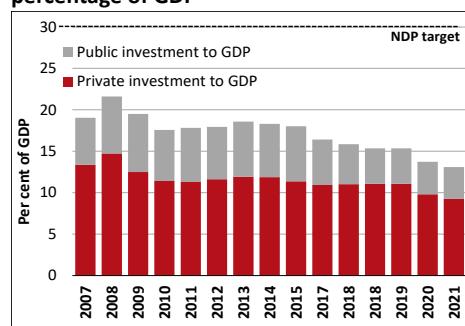


Source: BER

Explaining SA's poor growth performance

One of the key ingredients for sustained rapid growth is a high level of investment, generally in excess of 30 per cent of GDP, a level that is a critical target of the National Development Plan (NDP). High levels of investment drive growth by raising aggregate demand, but also reflect economic agents' confidence in the future. Since 1994, however, investment has hardly ever reached 20 per cent of GDP. Worse, the investment rate has been falling since 2013. This is true of both the public and private sectors and is among the most important reasons for South Africa's declining growth, both on the demand and supply side of the economy: reduced investment contributes to lower aggregate demand, but also results in constrained production capacity and infrastructure, which limits

Figure 11: Public and private investments as a percentage of GDP



Source: SARB, NT calculations

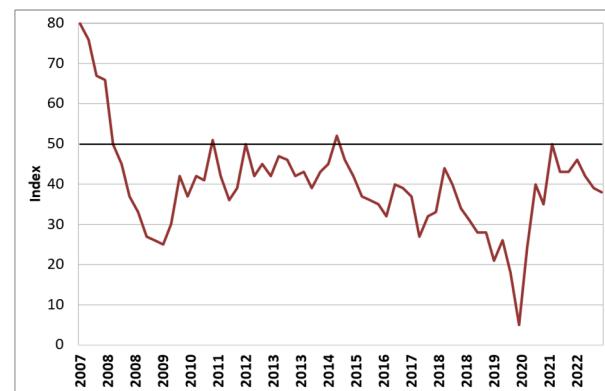
the capacity of the economy to expand the supply of goods and services.

With respect to private sector investment, the main reason for the decline is that confidence in the economy's future prospects has been low ([Figure 12](#)). Given the critical role of expectations of future prosperity in businesses' investment decisions, perceptions that the economy's future prospects are weak or weakening can be self-fulfilling because of the resulting decline in investment.

Reduced investment's effect on growth has been heightened by the fact that some components of investment spending, particularly in the SOCs, became increasingly inefficient over the past 15 years, as governance challenges beset them. This was particularly true in the two largest and most strategically important SOCs – Eskom and Transnet – whose deepening operational crises had cascading negative effects on the commercial prospects of business across the economy. By one estimate, over a third of the decline in South Africa's growth after 2010 is explained by the direct effects of reduced productivity from public utilities. This means that South Africa missed out on an aggregate of around R2 trillion in economic activity between 2011 and 2019 solely because of the weakening performance of Eskom and Transnet, a figure that will have increased significantly since then.

The deteriorating performance of South Africa's network industries, and the consequent increase in the risks and costs faced by businesses across the economy, is not the sole reason that investment has declined. Another factor has been the rise of macroeconomic risk as South Africa's public finances have come under increasing pressure. This is largely a result of the large structural gap between government's revenues and spending that opened up after 2008 ([Figure 3 RHS](#)) and the consequent rise in public debt ([Figure 3 LHS](#)). This issue is addressed below, but for present purposes, the most important effects of this are that higher levels of government borrowing put upward pressure on interest rates. This is both because the demand for savings increases when government borrowing rises, and because increased sovereign indebtedness creates an increasing risk that fiscal policies will end in some kind of crisis resulting in a combination of default, higher taxes and inflation. The increasing risk of macroeconomic crisis in the future impacts directly on firms' assessment of the returns they are likely to make when they invest, so it drives down investment in the present. It also results in buyers of financial assets requiring a higher risk premium, further putting upward pressure on interest rates.

Figure 12: Business confidence index



Source: BER

THE SUSTAINABILITY OF FISCAL POLICY

The most consistent goal of fiscal policy over the period under review has been the stabilisation of the ratio of debt to GDP. In general, this can be achieved either by reducing the amount that government borrows each year (by raising taxes or reducing spending) or through faster economic growth. As already described, however, South Africa's growth performance has disappointed, with annual growth

slowing over time. This means that economic growth has contributed little to stabilising the ratio of debt to GDP, which implies to stabilise debt has had to rely on closing the primary deficit by raising taxes and/or reducing spending.

This approach has often been criticised by those who insist that closing the deficit is a self-defeating approach to stabilising debt because this reduces growth more quickly than it closes the deficit, with the result that the ratio of debt to GDP does not improve, and may even worsen. While it is certainly true that there are circumstances in which this might be true, it is not true of South Africa in the period under review (see box on page 22).

The sustainability or otherwise of a country's fiscal policies is straightforward to calculate, and is defined by a mathematical equation that reveals whether or not current policy will lead to an ever-rising ratio of debt to GDP or will stabilise/fall. The equation looks quite complex, but the basic principles are clear, and the key variables are:

- (i) how much debt the government already has,
- (ii) the interest rate it pays on that debt,
- (iii) the rate of growth of the economy, and
- (iv) the size of primary deficit/surplus (i.e. the difference between non-interest spending and tax revenues)

The dynamics of the equation generate conclusions that imply that fiscal sustainability depends heavily on both the rate of economic growth and the cost of borrowing, with the sustainability being dependent on which is higher, the rate of economic growth or the costs of servicing government debt (for simplicity, dubbed "interest rates", though they include the effects of exchange rate changes on the costs of servicing foreign debt).

- *High growth, low interest rates*

If the growth rate of an economy is greater than the effective interest rate on government debt, then a country can generally run a primary deficit that will be sustainable unless that deficit is greater than a threshold value that itself depends on (i) the size of the gap between the growth rate and the interest rate and (ii) the size of the stock of existing debt. Thus, a country with debt amounting to 75 per cent of GDP, with a real growth rate of 3 per cent a year and a real interest rate of 1 per cent can run a primary deficit of nearly 1.5 per cent of GDP forever without increasing its debt ratio. Under these circumstances, relatively rapid growth erodes the effect of continuous borrowing, leaving the debt ratio unchanged.

- *Low growth, high interest rates*

Matters are much more complicated if the rate of growth of an economy is less than the interest rate that the country pays on its debt. In this case, the debt ratio increases exponentially unless government runs a primary surplus (i.e. its tax revenues exceed its spending), failing which it will not pay down its debts sufficiently quickly to prevent the debt ratio from rising. Thus, if a country has debt amounting to 75 per cent of GDP, has economic growth of 1 per cent a year but pays a real interest rate on its debt of 3 per cent, it must run an annual primary *surplus* of about 1.5 per cent of GDP or will see its debt ratio rise exponentially. In this case a failure to run a large primary surplus will mean that government borrowings for interest payments will add to the debt burden more quickly than the growth of the economy will reduce the burden of debt.

As is evident from the above, a country in which the interest rate on debt is greater than the rate at which it grows is in a much more challenging position than one in which the rate of economic growth

exceeds the interest rate. Where interest rates exceed growth rates, a country must run a primary surplus the size of which depends on the numerical values of the key variables; where the growth rate exceeds the interest rate, it can run a primary deficit (up to a point) without ever seeing its debt ratio rise. This is reflected in **Table 4**, which shows the primary balance needed to stabilise debt at 75 per cent of GDP as a function of the growth rate and the interest rate. As is evident, as growth rates fall and interest rates rise, a country must run larger and larger primary surpluses to stabilise the debt ratio, failing which the debt ratio will rise indefinitely and at an increasing rate.

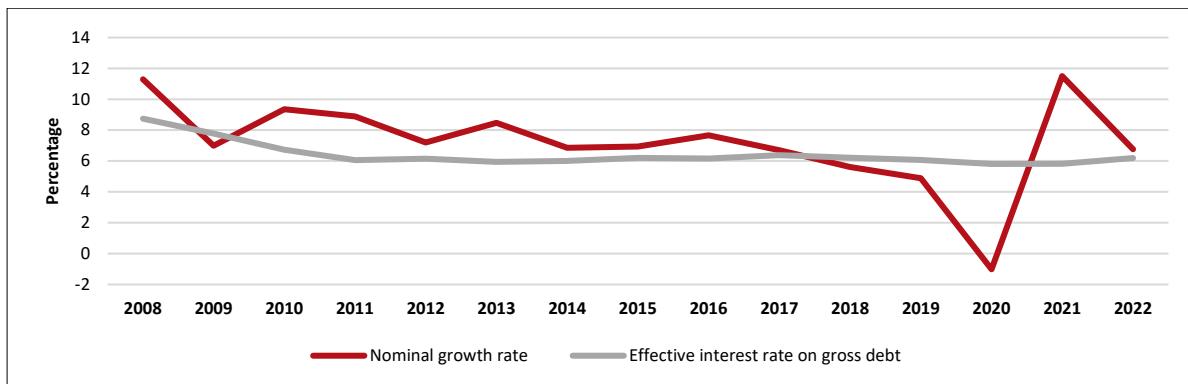
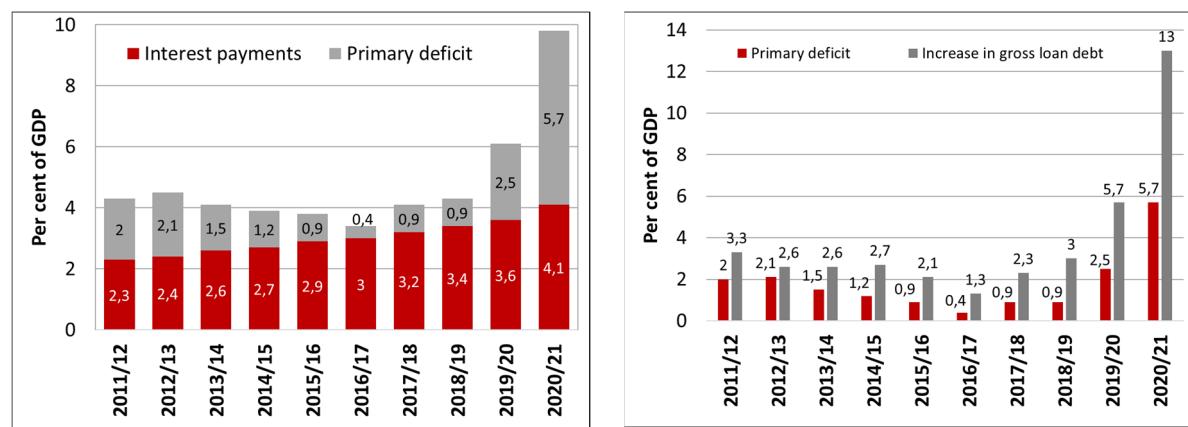
Table 4: The debt-stabilising primary deficit when debt is 75% of GDP, various real growth and interest rates

		Real interest rate								
		0,00%	0,50%	1,00%	1,50%	2,00%	2,50%	3,00%	3,50%	4,00%
Real growth rate	-0,75%	0,57%	0,94%	1,32%	1,70%	2,08%	2,46%	2,83%	3,21%	3,59%
	-0,50%	0,38%	0,75%	1,13%	1,51%	1,88%	2,26%	2,64%	3,02%	3,39%
	-0,25%	0,19%	0,56%	0,94%	1,32%	1,69%	2,07%	2,44%	2,82%	3,20%
	0,00%	0,00%	0,38%	0,75%	1,13%	1,50%	1,88%	2,25%	2,63%	3,00%
	0,25%	-0,19%	0,19%	0,56%	0,94%	1,31%	1,68%	2,06%	2,43%	2,81%
	0,50%	-0,37%	0,00%	0,37%	0,75%	1,12%	1,49%	1,87%	2,24%	2,61%
	0,75%	-0,56%	-0,19%	0,19%	0,56%	0,93%	1,30%	1,67%	2,05%	2,42%
	1,00%	-0,74%	-0,37%	0,00%	0,37%	0,74%	1,11%	1,49%	1,86%	2,23%
	1,25%	-0,93%	-0,56%	-0,19%	0,19%	0,56%	0,93%	1,30%	1,67%	2,04%
	1,50%	-1,11%	-0,74%	-0,37%	0,00%	0,37%	0,74%	1,11%	1,48%	1,85%
	1,75%	-1,29%	-0,92%	-0,55%	-0,18%	0,18%	0,55%	0,92%	1,29%	1,66%
	2,00%	-1,47%	-1,10%	-0,74%	-0,37%	0,00%	0,37%	0,74%	1,10%	1,47%
	2,25%	-1,65%	-1,28%	-0,92%	-0,55%	-0,18%	0,18%	0,55%	0,92%	1,28%
	2,50%	-1,83%	-1,46%	-1,10%	-0,73%	-0,37%	0,00%	0,37%	0,73%	1,10%
	2,75%	-2,01%	-1,64%	-1,28%	-0,91%	-0,55%	-0,18%	0,18%	0,55%	0,91%
	3,00%	-2,18%	-1,82%	-1,46%	-1,09%	-0,73%	-0,36%	0,00%	0,36%	0,73%

Source: National Treasury calculations

As can be seen from **Figure 13**, for much of the period under review, the growth rate has been falling and has, since 2018, been lower than the effective interest rate on government debt.³ In these circumstances, debt can stabilise if and only if the primary balance is zero or in surplus. In fact, as reflected in **Figure 14**, South Africa ran a reasonably substantial primary deficit in the period, which resulted in a rapid increase in the debt ratio (**Figure 14**, right-hand chart).

³ Here, we define the effective interest rate as annual debt service costs divided by gross debt, but this figure may underestimate the effective interest rate if changes in inflation or the exchange rate result in revaluations of foreign currency denominated debt or inflation-linked bonds.

Figure 13: Nominal growth rates and the effective interest rate on gross debt (2008/09 to 2021/22)**Figure 14: SA's fiscal deficit, disaggregating interest payments and the primary deficit**

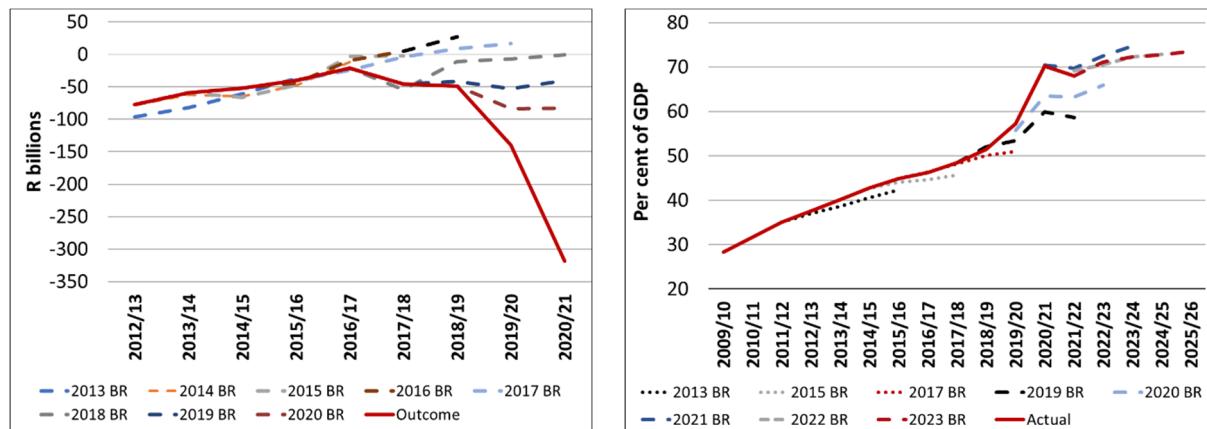
Source: National Treasury

The debt sustainability equations are mathematical relationships, and their implications are not really debatable. They are also evident to all stakeholders, including those from whom government seeks to borrow. This means that actual and potential lenders can see when a debt trajectory is unsustainable, and will be reluctant to lend unless they are compensated for the risk that unsustainable policies will result in disruptive crisis. The result is that countries with unsustainable policies have to pay higher rates of interest when they borrow (see Figure 6, above). This deepens the challenge confronting policy-makers: as interest rates on new debt rise, so do aggregate debt service costs, making an unsustainable trajectory even more unsustainable. The result is that the extent of consolidation needed increases the longer a country delays achieving a sustainable fiscal trajectory, as is the case for South Africa.

Faced with these realities, fiscal policy since 2012/13 has sought to consolidate spending to close the primary deficit. The principal policy tool for achieving this has been an expenditure ceiling which has contained expenditure growth relative to prior trends. Nevertheless, worse-than-expected growth outcomes combined with fiscal slippage has meant that the debt ratio has not stabilised. This is reflected in Figure 15, which shows (in the left-hand panel) the expected future trajectory of the primary balance as announced in the annual budget and compares this to the actual outcome, while the right-hand panel shows how the debt ratio has also tended to be higher than had been projected in previous budgets. Thus, while the actual primary deficit recorded in the year between

2012/13, 2013/14 and 2014/15 was a little smaller than had been anticipated in the MTEFs of previous years as a result of the expenditure ceiling, after 2014/15, the actual primary deficit recorded each year was generally larger than had been anticipated in previous MTEFs.

Figure 15: The primary deficit in nominal terms and the level of debt as a percentage of GDP (outcomes vs expectations)



Source: Budget documentation

It is important to note that, while the imposition of a spending ceiling was intended to put fiscal policy on a more sustainable path, expenditure continued to grow throughout the period, increasing at an average annual rate of 8.5 per cent (Figure 18). This makes the claim that the imposition of an expenditure ceiling constitutes a policy of “austerity” hard to credit (see box on page 22). That said, there are important qualifications to make about spending patterns over the period under review: the first is that the composition of spending became less and less aligned with the priorities needed for sustained growth, particularly spending on growth-enhancing infrastructure; the second is that the quality of public spending declined.

BOX 1: THE EFFECT OF FISCAL CONSOLIDATION ON GROWTH RATES

Critics of fiscal consolidation often claim that the policy is self-defeating because cuts to government spending reduce the size of the economy and the rate of economic growth. Because of the effect of fiscal multipliers, they argue, any reduction in government spending generates an even larger fall in GDP.

Fiscal multipliers – a measure of the impact of government’s spending and tax decisions on GDP – offer important insights into the performance of fiscal policy. International evidence suggests that government spending multipliers lie in a narrow range of 0.6 to 1.* This means that a 1 rand increase in government spending increases GDP by somewhere between 60 cents and 1 rand. For developing countries, spending multipliers are typically less than 1, which means that government spending raises GDP but does not stimulate additional private activity. We also know that high-debt countries have lower multipliers. For example, countries with a debt-to-GDP ratio above 60 per cent have a short-run multiplier of 0 and a long-run multiplier of -3.**

The implication of this for debt sustainability is critical: if the multiplier is less than 1, reducing government expenditure will reduce borrowings sufficiently to lower the debt to GDP ratio because borrowings will fall faster than GDP. Indeed, if the multiplier is negative, GDP will actually rise as borrowing falls, which will further reduce the debt to GDP ratio.

Various papers that have been published through Southern Africa – Towards Inclusive Economic Development (SA-TIED) reveal several interesting dynamics for South Africa.*** One paper finds an average long-term government spending multiplier of 0.27. In another, an estimation of separate multipliers for government consumption and investment spending find that both are below one, and that investment

multipliers are higher than consumption multipliers. A third, more recent paper, finds a government consumption multiplier of 0.155, while the multiplier for government investment is -0.118.

Three explanations for these low (and negative) fiscal multipliers stand out. First, unsustainable spending increases do not boost economic growth as higher debt service costs crowd out important economic and social expenditure. Second, the composition of South Africa's government spending is not conducive to growth due to the decline in government's contribution to investment as municipalities and state-owned companies have reduced capital spending over time. Third, structural constraints, such as the lack of reliable electricity and logistics challenges, constrain the ability of government spending to crowd in private sector investment.

These findings provide further support for government's focus on sustainable macroeconomic policy, the implementation of structural reforms to address the binding constraints to growth as well as the institutional and other reforms to upscale infrastructure investment.

* Ramey, Valerie (2019). Ten Years after the Financial Crisis: What Have We Learned from the Renaissance in Fiscal Research? *Journal of Economic Perspectives*, 33 (2).

** Ethan Ilzetzki, et al (2013). How big (small?) are fiscal multipliers?, *Journal of Monetary Economics*, 60 (2).

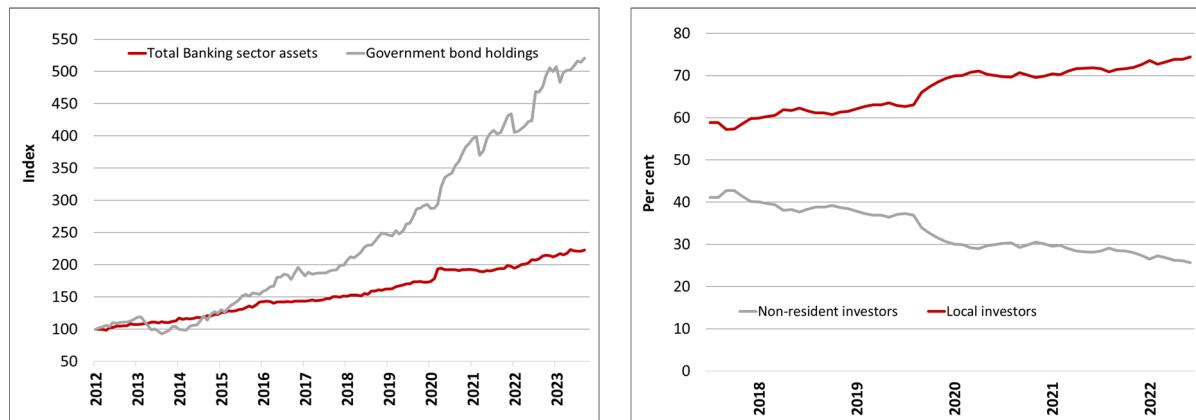
*** <https://sa-tied.wider.unu.edu/macro-fiscal-analysis>

Fiscal policy and private sector credit growth

In recent years, the sovereign-bank nexus has been identified as a potentially important risk to financial stability and, therefore, to growth. This is because South Africa's banks hold a large and increasing proportion of government debt, as reflected in the most recent Financial Stability Review published by the SARB in November 2023 (**Figure 16**, LHS). The key reasons banks hold so much government debt are:

- Returns on this debt are relatively high, especially because debt issued by government is treated by regulators as the lowest risk domestic asset class, which means that banks need to set aside little or no equity to cover the risk of default.
- Banks are primary dealers in government debt, which means they are the first to buy government debt, and will resell it to other financial institutions and investors. Banks earn profits on this, but the delay between buying government bonds and selling them can mean that holdings of government debt will rise if there are fewer buyers of that debt on the secondary market. And this has, in fact, been a significant feature of the past decade, with foreign purchasers of government bonds having become net sellers of South Africa's sovereign debt in recent years, as reflected in the fact that the proportion of government debt owned by foreigners is falling (**Figure 16**, RHS).

Figure 16: Growth of SA government bonds in comparison to banks' total asset growth (LHS; 2012 = 100) and the proportion of government bonds held by domestic and foreign investors (RHS)



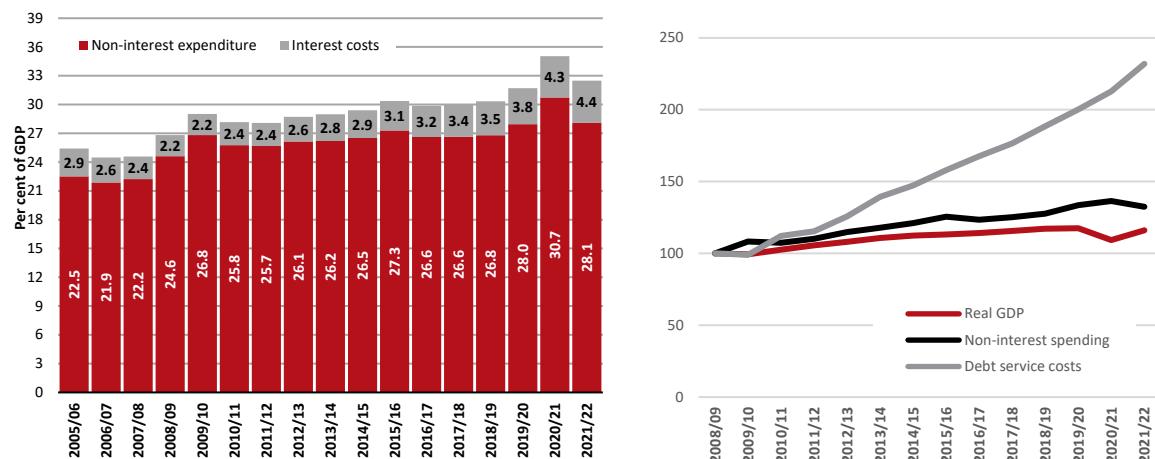
Source: SARB

The concentration of national debt on banks' balance sheets may pose a number of potential risks to growth. If interest rates on newly issued government debt rise, for example, the value of government bonds already owned by the banks would fall so that its yield rises to match the higher interest rates being earned on newly issued debt. The change in the value of these bonds, which are assets on banks' balance sheets, could result in less lending to households and businesses. The result is that economic growth may be undermined by reductions in banks' lending to the private sector. To the extent that there are concerns about the sustainability of fiscal policy, banks' holdings of government debt could result in slower economic growth as their lending to the private sector falls.

Changes in the composition of public spending

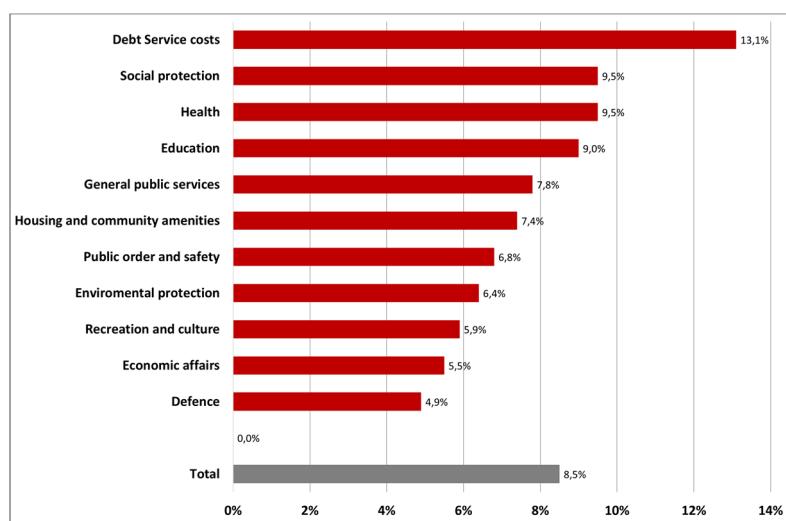
While the stabilisation of public debt is an essential precondition for the sustainability of government programmes and for improving South Africa's growth prospects, the principal purpose of fiscal policy is to ensure that resources are allocated to public spending priorities, particularly poverty reduction, and service delivery via the social wage. In this regard, it is the task of the budget process to identify the optimal mix of spending to achieve growth, social development and the reduction of poverty and inequality.

Over the period under review, consolidated public spending has risen at an annual average rate of 8.5 per cent per annum in nominal terms and at 2.7 per cent a year in real terms. This is faster than the rate of growth of the economy, so government spending has risen from 26.2 per cent of GDP in 2008/09 to 32.5 per cent in 2021/22. Debt service costs have risen faster than non-interest spending, however, more than doubling in real terms since 2008/09.

Figure 17: Spending as a % of GDP (LHS) and changes in GDP, real debt service costs and real non-interest spending (RHS)

Source: National Treasury

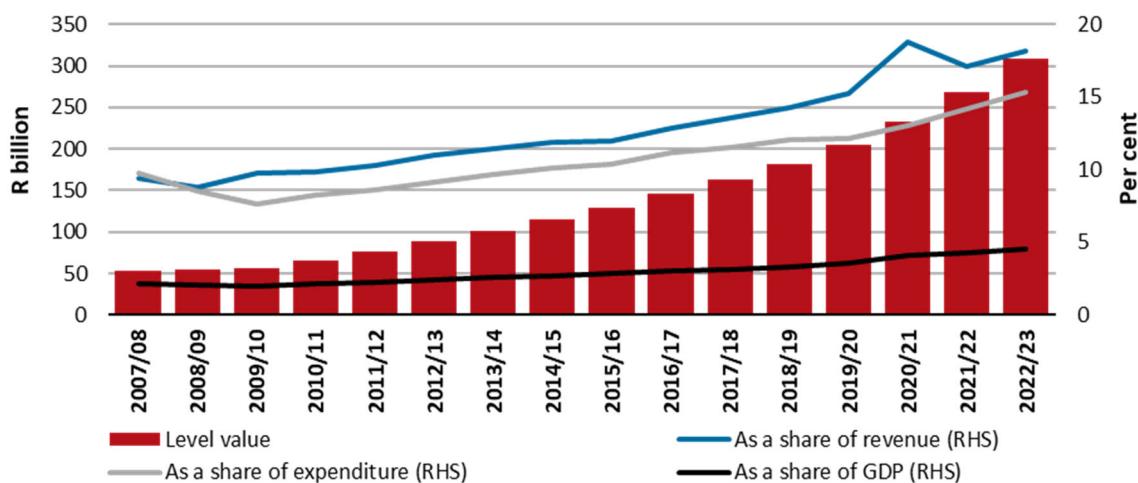
Within the portfolio of government services, the rate of growth of spending on social protection (9.2 per cent a year) and education and health (8.9 per cent per year) has grown faster than aggregate spending (8.5 per cent a year) over the period under review. These categories of spend form part of the social wage and are critical for addressing poverty. Over the same period, growth was slowest for defence spending, economic affairs and recreation and culture (Figure 18). Over the same period, debt service costs grew at 13.2 per cent per year, reflecting the rising level of debt. The increase in spending on social development over the period under review includes the expansion of spending on social grants in 2020/21, when access to the SRD grant of R350 per month, was dramatically increased in response to the Covid-19 pandemic. The composition of spending needs to create the space for government to improve the lives of vulnerable populations while supporting activities that can improve potential growth through investment.

Figure 18: Average annual growth in nominal spending: 2008/09 to 2021/22

Source: National Treasury

The rise in debt service costs from R50 billion a year in 2007/08 to a projected R400 billion in 2025/26 is a direct consequence of increased sovereign indebtedness (Figure 19). The result is that debt service costs have risen from 8 per cent of aggregate spending in 2011/12 to 12 per cent in 2020/21. Debt service costs are projected to continue to rise to 16 per cent in 2025/26, and over the current MTEF they are expected to account for 20 per cent of all tax revenues.

Figure 19: Debt service costs, R millions and as a % of GDP, revenue and expenditure.



Source: National Treasury

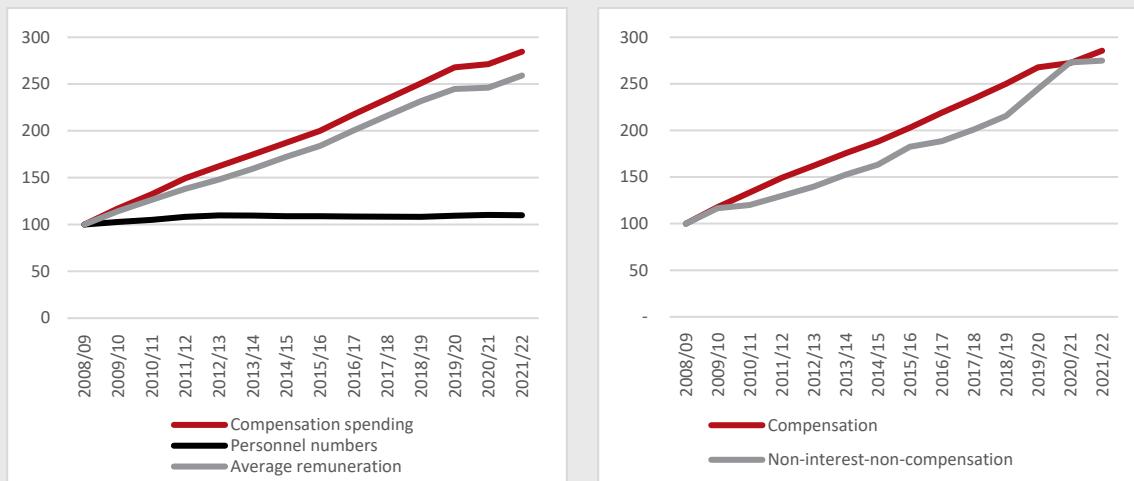
The rising weight of debt service costs has obvious implications for the availability of resources for government's other functions, so the rapid growth of interest payments has impacted service delivery through slower growth in spending on other activities and priorities, as reflected in Figure 18. This represents a deterioration in the composition of spending by function. This deterioration is matched by a deterioration in the composition of spending when disaggregated by economic classification, with the real value of spending on capital goods actually falling over the period under review, reflecting an increasing emphasis of consumption rather than investment spending. Spending on goods and services has also grown slowly, at a rate that is lower than GDP growth implying falling per capita spending.

BOX 2: COMPENSATION SPENDING TRENDS IN THE PERIOD UNDER REVIEW.

The provision of public services is inherently labour-intensive. Education, healthcare and law enforcement are among the most important functions that government undertakes, and their provision requires considerable numbers of teachers, nurses and police officers. In providing these services, government must make critical policy decisions relating to the number of people employed to fulfil these functions and their remuneration: there must be an adequate number of personnel; they must be appropriately remunerated given their skills, experience and roles. The reality of budget constraints means that there is an unavoidable trade-off between the number of people employed and their conditions of service.

Over the period under review personnel establishments in most government functions have been static at about 1.25 million people, while average remuneration rose at 7.2 per cent per year from R147 000 in 2008/09 to R456 000 in 2021/22. Overall, compensation spending grew faster than non-interest, non-compensation spending between 2008/09 and 2019/20, almost as fast as the rate of growth of spending as a whole (Figure 20). This relationship was reversed in 2020, when government took the unprecedented step of refusing to implement the third year of the three-year wage agreement signed in 2018, and when non-compensation, non-interest spending grew rapidly in response to the Covid-19 emergency.

Figure 20: Aggregate compensation spending, personnel numbers and remuneration (LHS) and spending on compensation, interest costs and non-interest, non-compensation costs (2008/09 = 100)



Source: National Treasury

Productivity in the public service

A full accounting of the performance of fiscal policy would require an assessment of changes – positive or negative – in the productivity of the public sector. This, however, is exceptionally difficult, primarily because productivity is generally very hard to measure in services sectors. This is particularly challenging in sectors such as education, healthcare and policing, where there are no unambiguous, easily quantified and widely agreed metrics for measuring performance, and where the factors that determine outcomes are large in number, diverse in character, and frequently outside of the direct control of public servants.

Notwithstanding these difficulties, and notwithstanding the increase in spending, it is hard to make a case for a general claim that productivity levels in the public sector have unambiguously increased in the period under review. Upward trends in crime, for example, paint an unfavourable picture of the performance and productivity of the police and the justice system, albeit that these trends cannot be wholly ascribed to changes in the quantity or quality of policing. That said, the picture is not wholly bleak: educational outcomes in South Africa's schools' system, for example, while low when compared to global norms, are higher than they were in 2010 with some exceptions, and a larger number of learners are matriculating having completed maths and science. Similarly, life expectancy continued to rise, at least until the onset of Covid-19, largely as a result of the HIV/Aids programme's rolling back the worst effect of the Aids pandemic. There are important qualifications to both these narratives. It is not the case that all education metrics have improved, the improvements that have been achieved are measured against a low base, and the system is characterised by profound inequalities. The post-school education and training landscape also includes numerous institutions whose qualifications provide little or no advantage to graduates/diplomates who enter the labour market. Similarly, the health system, which must address a very wide range of health-related challenges, was troublingly weak and overstretched even before Covid-19.

These examples show that productivity changes in public services are not wholly negative. What they do not show, however, is that there has been an unambiguous improvement, much less one that matches the relatively rapid growth in spending on public services. There are, moreover, reasons to be concerned about the quality of spending across the public sector. One reason for this is that it is undeniable that the operations of the public sector in the period under review were often characterised by high levels of corruption and maladministration. The Commission of Inquiry into State Capture revealed details of many of the most extreme cases of corruption and self-dealing in government, but there is ample evidence that the quality of governance of public institutions declined over much of this period, and that rising corruption was both the cause and effect of this.

Inevitably, corruption means that institutions have had fewer resources to deploy for service delivery, with adverse effects on output and performance. Importantly, the presence of significant corruption in some parts of an organisation distorts and diverts managerial and operational activities, impacting on performance of the whole organisation, including in parts that are not themselves characterised by corrupt activities.

One area of public sector activity in which productivity is not difficult to measure is in the SOCs, especially Transnet and Eskom. Here, operational and commercial challenges have deepened over the period under review, with large and measurable declines in productivity as costs rose but output fell. Much of this is a consequence of deep governance challenges and outdated business models. These have also had the effect of ensuring that the considerable resources devoted to maintaining and expanding the SOCs' infrastructure have not produced the expected results, leaving them overleveraged relative to their revenue-producing capacity. This, in turn, has placed significant pressure on the fiscus to recapitalise the entities, as reflected in Table 3, above. However, the biggest impact of these operational challenges has been on economic activity, with underperforming SOCs impacting the supply of electricity and logistics and thus being a binding constraint on economic growth.

Tax reforms

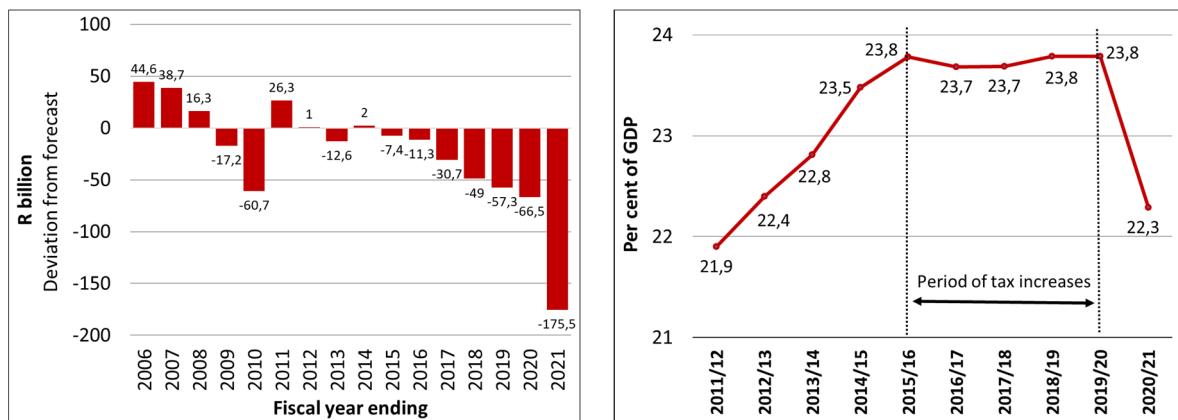
As described above, the implementation of an expenditure ceiling was not wholly successful. Nor was it the sole strategy deployed for fiscal consolidation during the period under review. Government also sought to improve fiscal sustainability through several revenue measures implemented from 2015. This was the first time since the advent of democracy that tax rates were increased. The tax increases over the period 2015/16 to 2019/20 encompassed various tax instruments. The main adjustments included:

- Limited relief for inflation to personal income tax (PIT) brackets and rebates
- A one percentage point increase in all PIT rates, except for the bottom bracket
- The introduction of a new top PIT rate of 45 per cent for taxable incomes above R1.5 million
- An increase in the inclusion rates for capital gains to 40 per cent (25 per cent in 2012)
- An increase in the dividends tax rate from 15 per cent to 20 per cent
- Large, above-inflation increases in the General Fuel Levy and the Road Accident Fund Levy
- Above-inflation increases in excise duties on alcohol and tobacco
- An increase in the estate duty rate from 20 to 25 per cent for estates above R30 million

- An increase in the *ad valorem* excise duty (on luxury goods) from 7 to 9 per cent
- An increase in the value-added tax rate to 15 per cent.

The impact of these changes on revenues was limited, however. Slow economic growth combined with weakening administrative efficiency at SARS during the period of state capture, meant that revenues were generally lower than projected in the budget (Figure 21, LHS) and the increase in tax rates only led to a slight increase in the tax-to-GDP ratio (Figure 21, RHS).

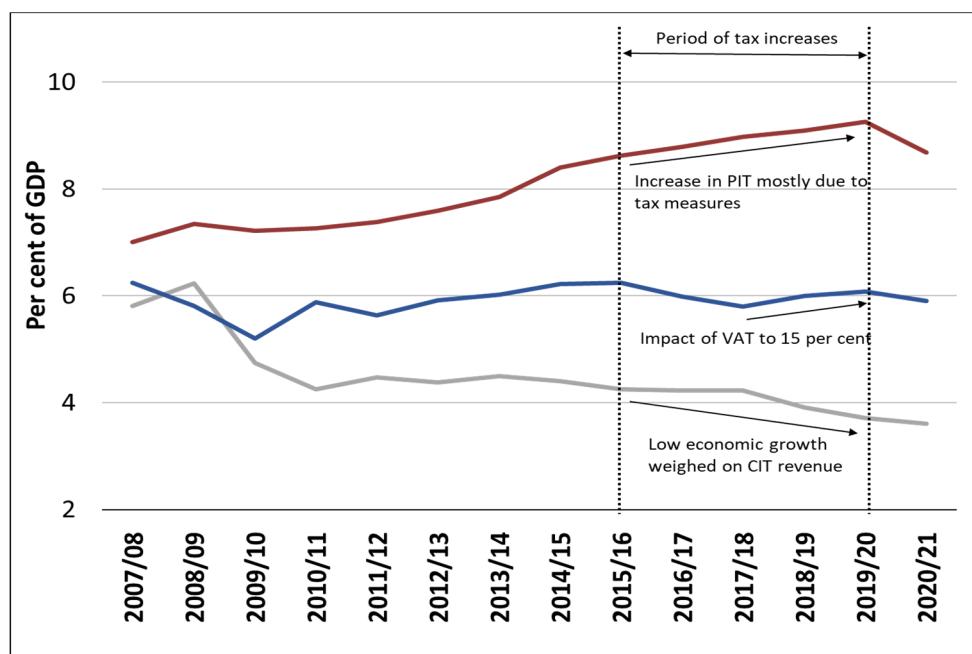
Figure 21: Revenue performance relative to budget of the previous year (LHS) and tax revenues as a % of GDP (RHS)



Source: National Treasury

A key reason why changes to tax rates failed to deliver the revenues expected is that slow economic growth has meant that corporate income tax (CIT), which is a very significant contributor to revenues, has performed poorly. PIT and VAT rose as a result of the measures taken, but at a rate that was lower than expected (Figure 22) in part because of the lower-than-expected growth rate, and in part because of changes in tax-payer behaviour, particularly at the top of the distribution.

Figure 22: Disaggregating revenues as a % of GDP by key tax types



Source: National Treasury

MONETARY POLICY, MACROECONOMIC STABILITY AND GROWTH

Some of the central macroeconomic challenges facing any society revolve around the management of money. These challenges are also among the most controversial and misunderstood, with critics often claiming that many of society's challenges could be quickly solved if the governments and their central banks pumped more liquidity into their economies. While it is true that monetary authorities globally have made consequential mistakes over the past few decades, the claim that a different monetary regime would make possible much faster and more inclusive growth is premised on assumptions that do not hold in South Africa, and hold in other jurisdictions only temporarily, if at all.

In economies in which currencies are not pegged to another currency, monetary policy is concerned with avoiding inflation in order to prevent the erosion of living standards as well as the enormous economic distortions that arise from high and or volatile inflation rates. As is demonstrated by the history of countries across Latin America and much closer to home, high and/or volatile inflation is exceptionally damaging for economic growth and national prosperity, with long-lived economic, social and political consequences. In addition, because the 'medicine' needed to counteract inflation is itself painful and unpopular, monetary policy often operates on the basis that prevention is better than cure.

High and volatile inflation damages economies because it directly undermines living standards, induces fear of the future, and creates significant distortions. But that is not the only risk that monetary authorities must manage: they must also avoid inflation getting too low. When that happens, it is harder for relative prices to adjust and, more importantly, societies face the even-more-devastating risk of deflation. The latter is strongly associated with stagnation and depression as households and businesses endlessly defer spending, knowing that prices will be lower in the future even as the real value of debt rises, squeezing the balance sheets of government, businesses and households.

Since it was first adopted by New Zealand in 1990, inflation targeting (IT) has become an increasingly common and effective monetary policy regime that balances the risks of too much and too little inflation. The essence of this approach is that government commits to ensuring that inflation is at or near a particular level, with the country's central bank mandated to achieve this. Importantly, the central bank in an IT regime must be independent because governments may be tempted to adjust the inflation target – or the implementation of monetary policy – for short-term political benefits. This combination – a clear inflation target pursued by an independent central bank – is widely thought to be the most effective monetary regime for long-term growth in emerging economies, particularly because, once established, it provides a credible anchor for inflation expectations.

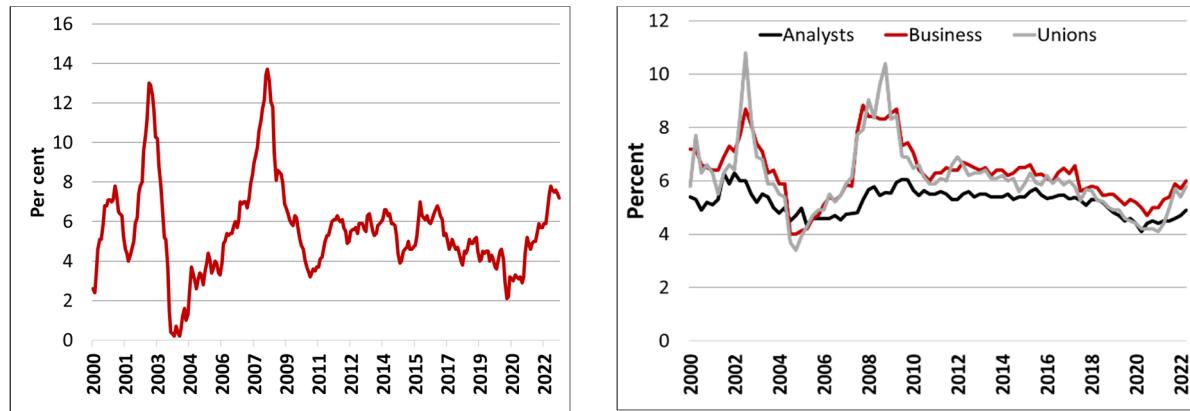
Inflation targeting in South Africa

Overall, the introduction of an inflation targeting regime in 2000, with an inflation target of between 3 and 6 per cent, has been associated with both a decline in average inflation and a reduction of its volatility, particularly during the period under review ([Figure 23](#), LHS).

The success of an inflation target framework in achieving its inflation target goal relies heavily on economic agents believing that inflation will return to the target, especially businesses and unions.

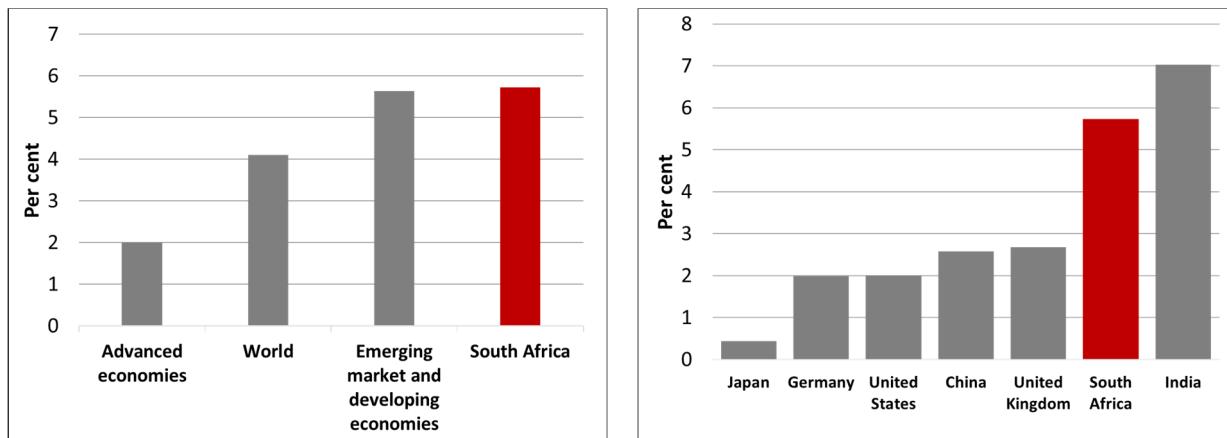
When expectations are anchored, business adjusts prices and unions adopt wage demands that align with the expected increase in prices, thus reducing upward pressure on inflation. To anchor inflation expectations, monetary policy needs to be credible, meaning that price-setters should believe that the central bank is committed to achieving the inflation target. Inflation expectations are also now well-anchored, as reflected in surveys of economic actors, which show that expectations of future inflation do not depart too far from current levels (Figure 23, RHS).

Figure 23:Headline inflation since 2000 (LHS) and inflation expectations two years ahead, 2000-2021 (RHS)



Source: National Treasury

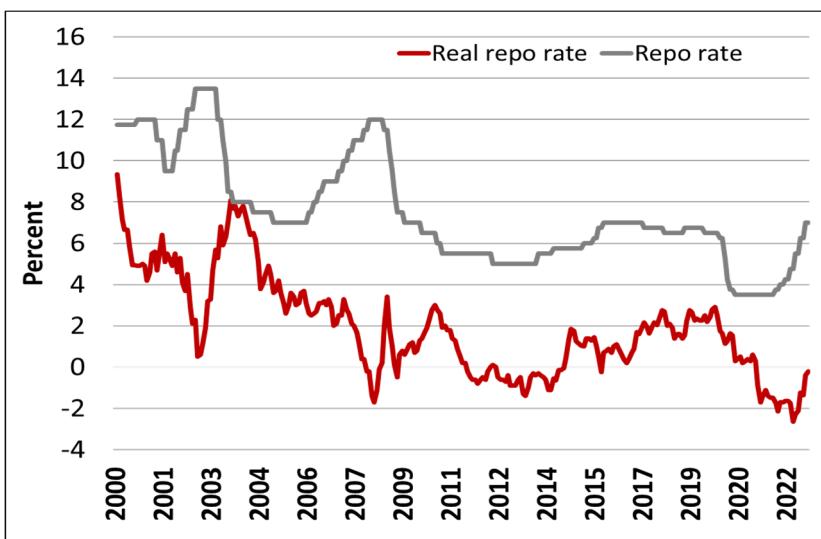
While reducing inflation and volatility is an important achievement of monetary policy over the period under review, some qualifications need to be made. The first is that the decline in inflation is not wholly a result of the implementation of domestic policy however effective, and the outcome also reflects the impact of disinflationary trends prevalent in the global economy over this period. The second is that, by virtue of the fact that the inflation target is 3 to 6 per cent, South Africa's inflation rate remains higher than the global average, and higher than our principal trading partners (Figure 24). The differential between inflation rates in South Africa and those that prevail internationally creates challenges that must be managed: the downward pressure on the exchange rate created by these differentials can reinforce inflationary pressures; conversely, if the inflation differential is not fully offset by currency depreciation, it can undermine the competitiveness of South Africa's tradable sectors, encouraging imports and discouraging exports.

Figure 24: Average headline inflation (2007-2022) across the globe and SA's main trading partners

Source: IMF

Interest rates and the yield curve

Protecting the value of the currency is the primary mandate of the monetary authorities. The principal tool for achieving this is the repo rate, which is raised when inflationary pressures are present and lowered when inflation is stable and within the target band. The credibility of the inflation targeting regime, combined with global disinflationary conditions, helped ensure that the policy rate has been lower and more stable over the period under review than was the case before the global financial crisis. Indeed, the inflation-adjusted repo rate was at or below zero for some periods (Figure 25).

Figure 25: Nominal and real level of the repo rate

Source: SARB

A key challenge that has confronted policy-makers has been the inflationary pressures generated by administrative prices, which have tended to rise more quickly than other prices, and which have put upward pressure on headline inflation. Inflationary pressures have also been strengthened by fiscal

policies that have generated significant demand growth without generating a commensurate supply response. These trends have complicated the implementation of monetary policy, with the authorities having to tighten policy more than they might otherwise have had to, with the real repo rate rising between 2012 and 2020.

BOX 3: CAN GOVERNMENT LOWER THE INTEREST RATE?

Critics of South Africa's monetary policy regime sometimes argue that the Reserve Bank and National Treasury can and should do more to control the interest rate on government debt, which is high in comparison to interest rates that prevail in most the rest of the world (**Figure 6**), impacting negatively on investment rates and economic growth. Combined with low growth rates, high interest rates also make it impossible to stabilise sovereign debt without running primary surpluses (see page 19, above). Given all of this, critics insist that government should lower the interest rate on government debt, arguing that this would stimulate growth and render fiscal policy sustainable without having to endure the pain of fiscal consolidation. Unfortunately, this argument is based on a number of misunderstandings, chief amongst which is the assumption that long-term interest rates can be directly controlled by a central bank.

To see why this is not the case, consider a hypothetical example where government determined that it would not pay interest on loans to it: lenders would be repaid the capital they lent, but there would be no interest payments made, either in the period during which the money was borrowed or when the capital was repaid. In these circumstances, no-one would voluntarily lend money to government because the value of the money repaid to them would be eroded by inflation. If government were to "borrow" it would, in effect, be imposing a tax on lenders (and only on lenders) equivalent to the value of the reduction in the real value of loan. It would also, in effect, be failing to compensate lenders for foregoing their own consumption or for the interest they might have earned if they had lent the money to a business or a household. Nor would they be compensated for any risk that government might default even on the (very generous) terms of this loan.

Given this, it stands to reason that government cannot impose an interest rate of zero on money it borrows unless it forces lenders to lend at that rate, in which case it is imposing a tax on lenders who will redirect their savings to more lucrative opportunities.

The same logic applies, albeit in a mediated form, for any other attempt by government to set an interest rate that is lower than the rate lenders require to compensate them for inflation and exchange rate risk, credit risk (i.e. the risk of default), and the opportunity costs of lending money.

Framed in this way, it might be asked what prevents lenders from raising the cost of government borrowing extortionately? How can we be sure that lenders don't conspire to raise borrowing costs illegitimately?

The essential answer is that capital markets are both enormous and exceptionally transparent. They are also hyper-competitive. The effect of this is that when government auctions debt, any attempt by lenders to force the costs of borrowing up will attract other would-be lenders who will compete to lend government money, and, in so doing, drive down the yield until it is at a level that is just high enough to compensate lenders for inflation and credit risks and the opportunity costs of lending in the first place. Government can lower the costs of borrowing by reducing these risks, but attempts to force the price of debt below its market price will not succeed for long.

Ultimately, long term rates are set in capital markets, and are affected by investors' perception of risk associated with economic growth outcomes, and their expectations of both future inflation, exchange rate movements, government revenue and debt dynamics. As a result, long-term rates cannot be sustainably controlled by a central bank in a small economy with low savings rates, a current account deficit and a floating exchange rate. Attempts to do so generate financial repression, which generates all kinds of distortion and results in capital flight that leads to currency depreciation and inflation. It is not a sustainable policy.

POLICY IMPLICATIONS AND CONCLUSION

This review underscores that the current macroeconomic policy framework is broadly fit for purpose with some notable limitations. Monetary policy goals have broadly been achieved, albeit that some adjustments to the framework may be desirable given inflation differentials compared to our peers and trading partners. In fiscal policy, however, sustainability has not been achieved.

The most important implication of the review is its demonstration of the critical importance of strong economic growth and the feedback loops to policy objectives and implementation. As such, unless growth accelerates, existing fiscal policy will remain unsustainable and will continue to impact on the ability of monetary policy to achieve its goals. This is borne out by the defining feature of fiscal policy over the period under review: the large, rapid increase in the ratio of debt to GDP, which has occurred despite repeated commitment to debt stabilisation.

Faster growth would improve the relationship between growth and the effective interest rate of government debt both directly (because growth would be higher) and indirectly (because reducing macroeconomic risk would reduce interest rates). Faster growth must, therefore, be at the top of the list of government policy priorities. Macroeconomic stimulus in the current context cannot deliver sustained growth, however, so fostering faster growth must be achieved primarily through microeconomic reforms and by reducing macroeconomic risk through credible and sustainable macroeconomic policy. Because recent experience of raising taxes shows that this does not generate a strong revenue response, achieving macroeconomic sustainability will have to continue to rely on containing spending growth.

Strengthening fiscal policy

In the absence of stronger economic growth, Treasury has attempted to stabilise the debt to GDP ratio through a combination of reduced expenditure growth and moderate increases in tax rates. Despite this, the fiscal framework has been unsuccessful in reigning in spending sufficiently, and as a result, the fiscal objective of sustainable public finances remains elusive. As a fiscal objective, “fiscal sustainability” is appropriate, and in line with responsible stewardship of the country’s public finances. However, in a context where existing strategies have not stabilised the debt to GDP ratio, committing fiscal policy to an anchor that could ensure the stabilisation and eventual reduction of the debt to GDP ratio is important. Reasons for debt to GDP stabilisation being elusive, include:

- A misreading of the growth slowdown in the initial years after the global financial crisis as a temporary economic event from which the country would naturally recover;
- The COVID 19 emergency that dramatically affected growth as well as government’s revenues and expenditure in the latter years of the period under review;
- Higher-than-budgeted wage agreements (including the legacy of wage agreements prior to the review period, especially the implementation of the Occupation Specific Dispensations);
- The adverse growth effects of the operational crises in state-owned companies, along with the fiscal effects of having to recapitalise some SOCs;
- Unforeseen and unavoidable events such as floods and civil unrest; and

- The expansion of spending on the social wage creating new spending commitments without commensurate revenue sources.

A consequence of these factors is that a large structural deficit has emerged between governments' spending commitments and its revenues. What this means in practice, is that, while the medium-term objective of debt stabilisation has remained intact throughout the period, the achievement of that objective has been repeatedly deferred. As a result of this pattern, the composition of spending has moved away from capital expenditure, and the debt to GDP ratio has increased to a level that was never proposed as government policy, and is, if anything, antithetical to stated policy goals. This, in turn, has impacted the credibility of the fiscal framework which has had the secondary effect of putting upward pressure on government's costs of borrowing.

Addressing these challenges requires government to consider (*inter alia*) reforms that strengthen the credibility of governments fiscal policy and its ability to deliver on its stated policy objectives. These include:

1. Strengthen government's fiscal anchor, enabling it to serve as a reliable commitment for the budget and give credible guidance on the future path that the budget will follow. A fiscal rule that commits government to achieving fiscal sustainability in a transparent and accountable way should be closely considered.
2. Strengthen the infrastructure planning and implementation environment to improve the credibility of infrastructure budgets and their outcomes. At the same time, funding mechanisms that allow for budget and other funds to be securely prioritised towards credible and developmental capital projects should be developed.
3. Strengthen the role of the contingency reserve as a risk management instrument. Other reforms aimed at protecting the fiscal anchor from unforeseen environmental, social and economic risk should also be considered.
4. Strengthen the framework governing the size, mechanics and conditions for the recapitalisation of SOCs to ensure improved operational performance and greater financial discipline.

Strengthening monetary policy

Through transparent communication and generally well-judged policy interest rate measures, the Reserve Bank has managed to keep inflation within its 3 to 6 per cent target band most of the time over the last decade, with only small and brief deviations. That said, while the SARB has shown its ability to stabilise inflation and anchor expectations, the question arises as to whether the current definition of the target is the most appropriate given inflation differentials compared to our peers and trading partners. Technical work on the appropriate level of an inflation target for South Africa's current economic context, both global and domestic, and what form such a target should take (point or range), should continue. Any possible future decision must be based on evidence and communicated in a transparent manner.

The Review has also highlighted the interaction between fiscal decisions and the management of money (inflation and macroprudential requirements). As such, as part of transparent coordination between the National Treasury and the SARB, the SARB should discuss more explicitly the impact of fiscal policy on its inflation and growth projections. This would help economic agents and the broader

public to understand the implications of various policy decisions for monetary and fiscal policy coordination.

Many of the state capacity and microeconomic structural problems drive administrative inflation. Managing administrative inflation in order to limit the impact of these binding constraints on the implementation of macroeconomic policy (in this case monetary policy) would be beneficial. In this regard, the review provides support for the implementation of the three pillar growth strategy as discussed in budget documentation since 2022.

Concluding remarks

Sound macroeconomic policy is a necessary-but-insufficient condition for sustained economic growth, and its importance is all the greater in small, open economies whose resilience in the face of external shocks can be undermined by inappropriate and unsustainable macroeconomic policies. Indeed, when policies depart too far from the path of sustainability, they can themselves undermine growth and even destabilise an economy. Economies that experience crises of these kind can see long-term growth prospects decline significantly, as sovereign risks rise and investment rates fall.

This review has shown that South Africa faces significant macroeconomic policy challenges, most notably the interlinked needs to secure faster economic growth and to return to a sustainable fiscal path. The legacy of having spent a long period in which fiscal policy was unsustainable complicates this challenge enormously because of the build-up of risks and the need to manage some of the costs and distributional effects of the adjustments that are necessary. At the same time, the long-term unsustainable path of fiscal policy has pushed monetary policy to work harder to balance macroeconomic risks to support the economy. These are significant challenges – technical, economic and political – that can only be solved on the basis of a shared diagnosis of the challenges we face and their root causes. This review has sought to create the basis for the essential conversations that will be needed to address the challenges it describes.

CONSOLIDATED BIBLIOGRAPHY

- Akanbi, O. A., 2013. Macroeconomic Effects of Fiscal Policy Changes: A Case of South Africa. *Economic Modelling*, Vol. 35, pp.771-785.
- Alberto, C., & Viegi, N. (2020). The monetary policy of the South African Reserve Bank: stance, communication and credibility". *Economic Research Southern Afria*.
- Baier, S.L. & Glomm, G., 2001. Long-run growth and welfare effects of public policies with distortionary taxation. *Journal of Economic Dynamics and Control*, 25(12), pp.2007-2042.
- Banerjee, A., Galiani, S., Levinsohn, J., MacLaren, Z., & Woolard, I. (2008). Why has unemployment risen in the New South Africa. *Economics of Transition*, 16(4), 715-740.
- Barro, R.J., 1990. Government spending in a simple model of endogenous growth. *Journal of Political Economy*, 98(5, Part 2), pp.S103-S125.
- Bems, R., Caselli, F., & Grigoli, F. a. (2018). Expectations anchoring and inflation persistence. IMF Working Paper , Working paper No. 2018/280.
- Bernanke, B., & Mishkin, F. (1997). Inflation Targeting: A New Framework for Monetary Policy? *Journal of Economic Perspectives*, 11 (2): 97-116.
- Bernanke, B.S., 2020. The new tools of monetary policy. *American Economic Review*, 110(4), pp.943-83.
- Bhorat, H., Goga, S., & Stanwix, B. (2014). Skills-Biased Labour Demand and the Pursuit of Inclusive Growth in South Africa. WIDER Working Paper 2014/130. Helsinki: UNU-WIDER.
- Blinder , A., Ehrmann, M., Fratzscher, M., De Haan, J., & Jansen, D.-J. (2008). Central bank communication and monetary policy. European Central Bank Working paper series.
- Bonifacio, V., Marques-Brandao, L., Budina, N., Csonto, B., Fratto, C., Engler, P., . . . Poirson, H. (2021). Distributional effects of monetary policy. IMF Working paper No. 2021/201.
- Bordo , M., & Siklos, P. (2014). Central Bank Credibility, Reputation and Inflation Targeting in Historical Perspective. National Bureau of Economic Research.
- Borio, C. (2011). Rediscovering the macroeconomic roots of financial stability policy: journey, challenges and a way forward. Bank for International Settlements Working Papers 354.
- Botha, A.P., 2013, September. Explaining the changing input-output multipliers in South Africa: 1980-2010. In Biennial Conference of the Economic Society of South Africa, Vol. 25, p. 27.
- Burger, P. & Calitz, E., 2021. Covid-19, Economic Growth and South African Fiscal Policy. *South African Journal of Economics*, 89(1), pp.3-24.
- Burger, P. (2014). Inflation and market uncertainty in South Africa. *South African Journal of Economics*, 82:4.

- Checherita-Westphal, C. & Rother, P., 2012. The impact of high government debt on economic growth and its channels: An empirical investigation for the euro area. European Economic Review, 56(7), pp.1392-1405.
- Colciago, A., Samarina, A., & de Haan, J. (2019). Central bank policies and income and wealth inequality. Journal of Economic Surveys, 33(4), 1199-1231.
- Coulibaly, D., & Kempf, H. (2010). Does inflation targeting decrease exchange rate pass-through in emerging countries? Working papers, Banque de France.
- Dadam, V., & Viegi , N. (2015). Labour Market and Monetary Policy in South Africa. University of Pretoria Department of Economics Working Paper Series.
- Davoodi H. R., P. Elger, A. Fotiou, D. Garcia-Macia, X. Han, A. Lagerborg, W.R. Lam & P. Medas, 2022. Fiscal Rules and Fiscal Councils: Recent Trends and Performance during the Pandemic. IMF Working Paper No.22/11, International Monetary Fund, Washington, D.C.
- Debrun, X., 2011. Democratic accountability, deficit bias, and independent fiscal agencies. IMF Working Paper WP/11/173, International Monetary Fund, Washington, D.C.
- Devereux, M.B. & Love, D.R., 1994. The effects of factor taxation in a two-sector model of endogenous growth. Canadian Journal of Economics, pp.509-536.
- Edwards, L. (2021). South Africa's International Trade. PRISM Working Paper 2021-1. Cape Town: Policy Research on International Services and Manufacturing, University of Cape Town. .
- Erosa, A., Koreshkova, T. & Restuccia, D., 2010. How important is human capital? A quantitative theory assessment of world income inequality. The Review of Economic Studies, 77(4), pp.1421-1449.
- Frankel , J., Smit, B., & Sturzenegger, F. (2006). South Africa: Macroeconomic Challenges after a Decade of Success. CID Working Papers 133. Center for International Development at Harvard University.
- Fund, I. M. (2015). Evolving monetary policy frameworks in low-income and other developing countries.
- Furman, J. & Summers, L., 2020. A reconsideration of fiscal policy in the era of low interest rates. Unpublished manuscript, Harvard University and Peterson Institute for International Economics.
- Futagami, K., Morita, Y. & Shibata, A., 1993. Dynamic analysis of an endogenous growth model with public capital. The Scandinavian Journal of Economics, pp.607-625.
- Gupta, R., Jooste, C., & Ranjbar, O. (2017). South Africa's inflation persistence: a quantile regression framework. Economic Change and Restructuring , 50(4), 367-386.
- Hagemann, R., 2011. How can fiscal councils strengthen fiscal performance?. OECD Journal: Economic Studies, 2011(1), pp.1-24.
- Hausmann, D., Sturzenegger, F., Goldstein, P., Muci, F., & Barrios, D. (2022, February). Macroeconomic Risks after a Decade of Microeconomic Turbulence: South Africa 2007-2020.

SA-TIED Working Paper #206. s University World Institute for Development Economics Research; Growth Lab – Harvard University.

Havemann, R. & Hollander, R., 2022. Fiscal policy in times of fiscal stress (N0.2022/52). WIDER Working Paper.

Hofmann, B., Lombardi, M.J., Mojon, B. & Orphanides, A., 2021. Fiscal and monetary policy interactions in a low interest rate world. BIS Working Papers 954, Bank for International Settlements.

Honohan, P., & Orphanides, A. (2022). Monetary policy in South Africa: 2007-2021. WIDER Working paper .

International Monetary Fund and World Bank. (2001). Macroeconomic Policy and Poverty Reduction. Washington D.C.: International Monetary Fund and World Bank.

International Monetary Fund. 2015. Fiscal policy and long term growth (IMF policy paper). Washington, DC: International Monetary Fund.

International Monetary Fund. 2022. Fiscal rules dataset, 1985-2021. IMF Fiscal Affairs Department. <https://www.imf.org/external/datamapper/fiscalrules/map/map.htm>

Ismail, Z., & Wood, C. (2023). Review of administered prices in South Africa: The electricity tariff. Pretoria: SARB Special Occasional Bulletin of Economic Notes.

Jooste, C. & Naraidoo, R., 2017. The Macroeconomics Effects of Government Spending Under Fiscal Foresight. South African Journal of Economics, 85(1), pp.68-85.

Jooste, C., Liu, G.D. & Naraidoo, R., 2013. Analysing the effects of fiscal policy shocks in the South African economy. Economic Modelling, 32, pp.215-224.

Kabundi , A., & Tsokodibane, N. (2016). Qualitative Guidance and Predictability of Monetary Policy in South Africa. South African Reserve Bank working paper series .

Kabundi, A., & Mlachila, M. (2019). The role of monetary policy credibility in explaining the decline in exchange rate pass through in South Africa. Economic Modelling , 79, 173-185.

Kabundi, A., Schaling, E., & Modeste, S. (2019). Estimating a Phillips Curve for South Africa: A Bounded Random-Walk Approach. International Journal of Central Banking, International Journal of Central Banking.

Kabundi, A., Schaling, E., & Some, M. (2015). Monetary policy and heterogeneous inflation expectations in South Africa. Economic Modelling , 45, 109-117.

Kabundi, A; Mbelu, A. (2018). South African Journal of Economics, 86(3), 339-360.

Kemp, J. H. & Hollander, H., 2020. A medium-sized, open-economy, fiscal DSGE model of South Africa. WIDER Working Paper 2020/92.

Kemp, J.H., 2020. Empirical estimates of fiscal multipliers for South Africa (No. 2020/91). WIDER Working Paper.

Kim, Y.E. & Loayza, N., 2019. Productivity growth: Patterns and determinants across the world. World Bank Policy Research Working Paper, (8852).

- King, R.G. & Rebelo, S., 1990. Public policy and economic growth: developing neoclassical implications. *Journal of Political Economy*, 98(5, Part 2), pp.S126-S150.
- Klein, N. (2012). Estimating implicit inflation target of the South Africa Reserve Bank. IMF Working Paper, 12/177.
- Knight, J. (2021). A tale of two countries and two stages: South Africa, China and the Lewis Model. *South African Journal of Economics*, 89(2), 143-172.
- Kremer, S., Bick, A., & Nautz, D. (2012). Inflation and growth: new evidence from a dynamic panel threshold analysis. *Empirical Economics* , 861-878.
- Leeper, E.M., 2015. Fiscal analysis is darned hard (No. w21822). National Bureau of Economic Research.
- Leeper, E.M., Traum, N. & Walker, T.B., 2017. Clearing up the fiscal multiplier morass. *American Economic Review*, 107(8), pp.2409-54.
- Loewald, C., Faulkner, D. & Makrelov, K., 2020. Time consistency and economic growth: A case study of South African macroeconomic policy (No. 842). Economic Research Southern Africa.
- Mabugu, R., Robichaud, V., Maisonnave, H. & Chitiga, M., 2013. Impact of fiscal policy in an intertemporal CGE model for South Africa. *Economic Modelling*, 31, pp.775-782.
- Makhoba, B.P., Kaseeram, I. & Greyling, L., 2019. Assessing the impact of fiscal policy on economic growth in South Africa. *African Journal of Business and Economic Research*, 14(1), pp.7-29.
- Makrelov, K., Arndt, C., Davies, R. & Harris, L., 2018. Fiscal multipliers in South Africa: The importance of financial sector dynamics. WIDER Working Paper 2018/6.
- Martina Jašová, M., Moessner, R., & Takáts, E. (2016). Exchange rate pass-through: What has changed since the crisis? BIS Working Paper No. 583.
- Merrino, S. 2021. State-dependent fiscal multipliers and financial dynamics: An impulse response analysis by local projections for South Africa. SARB Working Paper Series No. WP/21/16, Pretoria: South African Reserve Bank.
- Mishkin, F. (1999). International experiences with different monetary policy regimes. *Journal of Monetary Economics*, 579-605.
- Miyamoto, H., Gueorguiev, N., Honda, J., Baum, A., Walker, S., Schwartz, G., Fouad, M., Hansen, T. & Verdier, G., 2020. Growth Impact of Public Investment and the Role of Infrastructure Governance. International Monetary Fund, Washington, DC.
- National Treasury. (2000). Budget Speech. Retrieved March 03, 2022, from <http://www.treasury.gov.za/documents/national%20budget/2000/speech/speech.pdf>
- Nergiz, N., & Eichengreen, B. (2014). Central Bank Transparency and Independence: Updates and New Measures. *International Journal of Central Banking*.
- Ngotana, O., 2021. Public debt-economic growth nexus. Case of South Africa (No. 2021/172). SA-TIED working paper.

- Nuru, N. Y., 2019. Monetary and Fiscal Policy Effects in South African Economy. *African Journal of Economic and Management Studies*, 11(4), pp. 625-38.
- Pecorino, P., 1993. Tax structure and growth in a model with human capital. *Journal of Public Economics*, 52(2), pp.251-271.
- Pescatori, A. (2018). Central Bank Communication and Monetary Policy Surprises in Chile. *International Monetary Fund Working Papers*.
- Petreski, M. (2013). Exchange rate pass through under inflation targeting in transition economies . *Intereconomics*, 48(3), 187-190.
- Rodrik, D. (2008). Understanding South Africa's economic puzzles. *Economics of Transition*, Volume 16(4), 769–797.
- Schröder, E. & Storm, S., 2020. Fiscal policy in South Africa: Closed input-output income and employment multipliers. *Institute for Economic Justice. Research Note*, (1).
- Statistics South Africa. (2017). Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2015. Pretoria: Statistics South Africa.
- Stats SA.2015. Millennium Development Goals Country Close Out Report for South Africa.
- Svensson, L. (2010). Inflation targeting . In L. Svensson, *Handbook of Monetary Economics* (pp. 1237-1302). Elsevier.
- Taylor, J. (1993). Discretion versus policy rules in practice. *Carnegie-Rochester Conference Series on Public Policy*, 195-214.
- Turnovsky, S. J., 2000. Fiscal policy, elastic labor supply, and endogenous growth. *Journal of Monetary Economics*, 45(1), pp.185-210.
- Vaona, A. (2012). Inflation and growth in the long run: A new Keynesian theory and further semiparametric evidence. *Macroeconomics Dynamics* , 16(1), 94-132.
- Vermeulen, C. (2020). On the mandate, ownership and independence of the South African Reserve Bank. *South African Journal of Economics and Management Sciences*, 23(1).
- Vermeulen, J. (2017). Inflation and unemployment in South Africa: Is the Phillips curve still dead? *Southern African Business Review* .
- Villavicencio, A., & Mignon, V. (2011). On the impact of inflation on output growth: Does the level of inflation matter? 33(3), 455-464.
- Wilhemsena, B., & Zadhinib, A. (2011). Monetary policy predictability in the Euro Area: an international comparison. *Applied Economics* , 2533-2544.
- Wyplosz, C., 2012. Fiscal rules: Theoretical issues and historical experiences. In *Fiscal policy after the financial crisis* (pp. 495-525). University of Chicago Press.



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Private Bag X115, Pretoria, 0001 | 40 Church Square, Pretoria, 0002 | Tel: +27 12 315 5944 | Fax: +27 12 406 9055 | www.treasury.gov.za