

## Assessing debt sustainability in South Africa

### Executive Summary

South Africa faces high uncertainty with respect to its public debt levels, cost of debt and future debt path. Due to multiple waves of the COVID-19 pandemic and a rapidly changing economic climate, fiscal vulnerabilities have become more apparent, creating concern for rising national debt. As a result, an updated analysis is required to examine South Africa's public debt sustainability.

Debt sustainability seeks to investigate the level of indebtedness and associated risks of unstable debt to decide whether the public sector is in debt distress or not. The aim of this paper is to provide a rounded assessment of public debt sustainability in South Africa. A variety of quantitative tools are employed to examine the context of debt, key sustainability indicators and forecasts of the debt path. The analysis illustrates that rising debt levels, cost of debt and poor economic growth contribute to deteriorating debt sustainability. In addition, regression analysis indicates that high debt is associated with weakening economic growth, which may signify unproductive spending or debt overhangs. On the other hand, examining the reactions of the primary balance to changes in debt suggests that there may be some attempt by the fiscus to rein in rising debt. Projections of the future debt path are generated by adapting the International Monetary Fund (IMF)'s debt sustainability analysis (DSA) template to the case of South Africa. Moreover, the analysis displays how shocks to growth, the primary balance and interest rate pose risks to the debt level and gross financing needs.

The Commission thus recommends exercising fiscal discipline throughout all spheres of government and reining in debt service costs, addressing weak productivity in expenditure, and promoting investor confidence by signalling that public debt is sustainable in the long run.



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## Background

In South Africa, economic and fiscal conditions have been severely strained and are subject to significant uncertainty, partly due to the COVID-19 pandemic. Sharp increases in debt and debt service costs pose serious risks to sustainability. As the consequences of debt will continue to plague South Africa for the foreseeable future, increasing attention must be allocated to understanding debt dynamics.

The research aims to understand debt and its sustainability in South Africa, particularly amid volatile economic conditions over the last few years. By looking at key sustainability indicators and other quantitative tools, the results assess what constitutes a sustainable debt path, whether debt is sustainable in South Africa, what impact high debt has on economic growth, and the future course of sustainability.

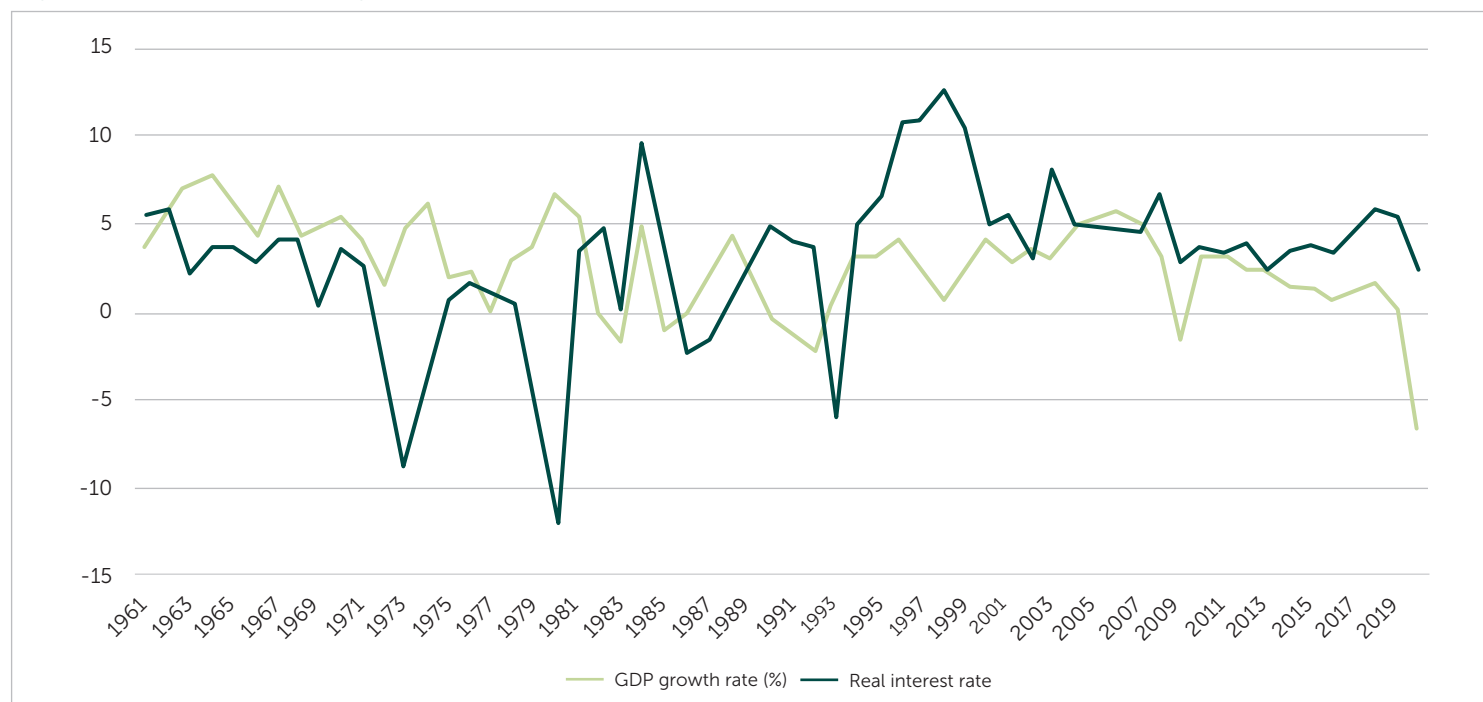
## Research findings

### 1. Indicators of sustainability

Compared to other countries, the cost of debt is relatively more expensive in South Africa. Debt levels remain far below those of many advanced economies, such as Japan, the USA and the UK. However the interest rates on Treasury bills and government bonds in South Africa are substantially higher.

Debt, debt service costs and gross financing needs, comprising the main budget deficit and debt redemptions, have all risen dramatically as proportions of gross domestic product (GDP) and revenue over the last five years, posing risks to solvency and liquidity. Debt-to-GDP has doubled over the last 10 years, increasing from 35.1% in 2010/11 to 70.7% in 2020/21. In 2021/22, the debt-to-GDP ratio fell slightly to 69.5% due to a recovery in GDP, despite the stock of debt increasing from R3.9 trillion to R4.3 trillion. Debt service costs are expected to rapidly rise over the medium term, from 4.3% in 2021/22 to 5% in 2024/25 (National Treasury, 2022<sup>1</sup>).

**Figure 1: Real economic growth rate vs real interest rate**



Data sourced from the World Bank (2022), ranging from 1961 to 2020. Real interest rates are calculated from lending rates adjusted for inflation. The World Bank's real GDP is calculated at 2015 prices.

<sup>1</sup> National Treasury. 2022. The Budget Review 2022.

<sup>2</sup> World Bank. 2022. World Bank Database.

In Figure 1, it is evident that the real interest rate has been substantially higher than the economic growth rate since 2014, creating a widening interest-growth differential, which fosters unfavourable debt conditions. Higher interest rates are associated with a higher cost of debt, and lower growth raises the debt-to-GDP ratio and weakens repayment capacity. Economic growth rebounded from -6.4% in 2020 to 4.9% in 2021, which serves to narrow the differential, but growth prospects for the medium term remain weak and interest rates are expected to start rising.

As another indicator of public sector solvency, a fiscal reaction function is analysed to examine the response of the primary balance to changes in debt levels. After controlling for the output gap, expenditure gap and years of a primary balance deficit, the primary balance tends to improve (i.e. move towards a surplus or away from a deficit) when debt rises. In other words, the result indicates that there is an attempt to meet solvency constraints, which is a positive factor for debt sustainability. However, given the strained economic environment and protracted period of a high interest-growth differential, the reaction to changing debt levels may not be strong enough to counter these effects.

Some favourable indicators for sustainability include that South Africa's debt is mostly longer term, reducing liquidity risks, and domestic, reducing exchange rate risks.

## 2. Debt and economic growth

As an indicator relating to debt and fiscal sustainability, Table 1 displays the impact of debt levels on economic growth.

**Table 1: Impact of debt on economic growth**

	(1)	(2)	(3)
	GDP growth rate	GDP growth rate	GDP growth rate
Debt (% GDP)	0.713***	0.530**	0.523**
Debt2 (% GDP)	-0.009***	-0.006***	-0.007***
Inflation (CPI)		-0.109*	-0.136**
Surplus/deficit (% GDP)		0.314**	0.345*
Trade (% GDP)		0.059*	0.046
Gross fixed capital formation (growth rate)		0.165***	0.159***
Real interest rate			-0.077
R-squared	0.22	0.70	0.72
Durbin-Watson Statistic	1.00	1.92	2.07
Observations	60	60	60

**Notes:** Coefficients are rounded to three decimal places. Data is sourced from the World Bank (2022<sup>3</sup>) and the South African Reserve Bank (2022<sup>4</sup>) Sample 1961–2020. Constants are included, but not presented.

<sup>3</sup> World Bank. 2022. World Bank Database.

<sup>4</sup> South African Reserve Bank. 2022. Public Finance Statistical Tables. Quarterly Bulletin March 2022.

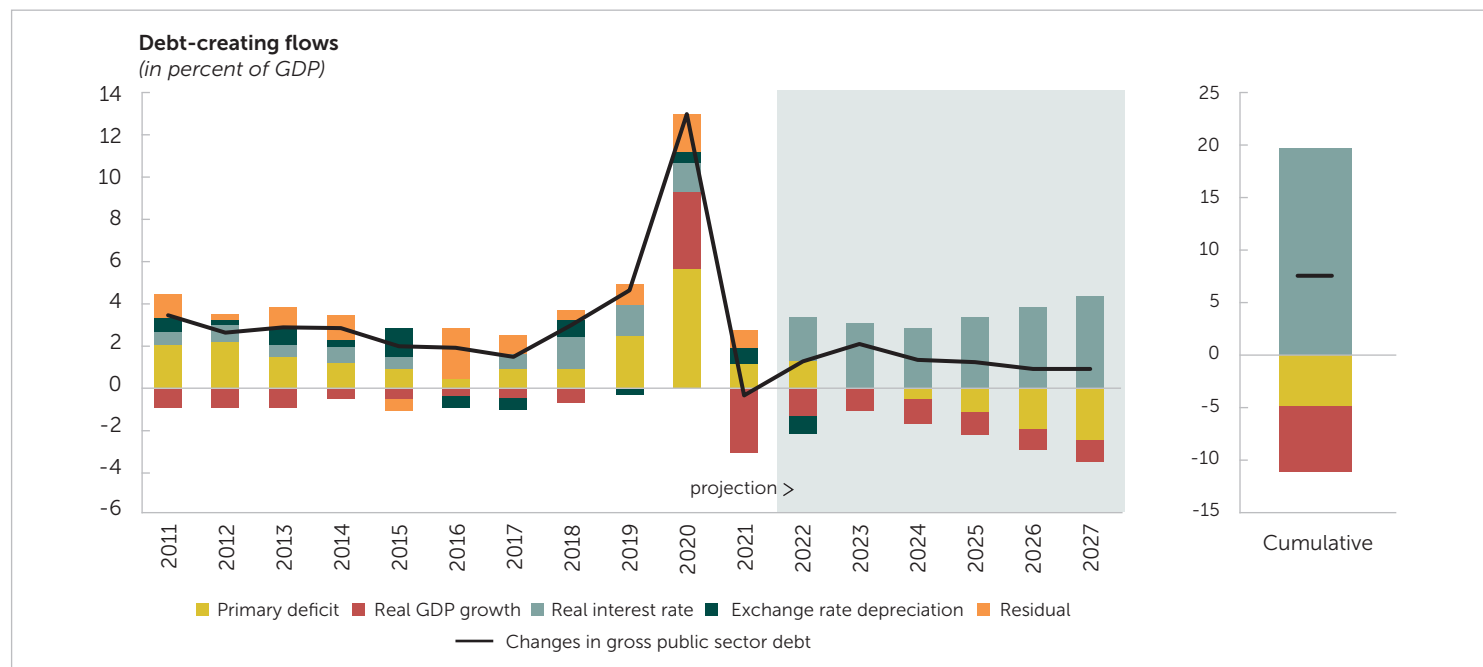
The regressions show a significant nonlinear impact of debt on economic growth. In all three columns, debt is associated with rising GDP growth. However, the negative sign on debt-squared indicates that its effect on GDP is lessened as debt grows. In Column 1, debt has a positive effect on growth until a turning point of approximately 40%, after which additional increases in debt are associated with lower growth rates. When controlling for other variables, higher growth rates of investment have a positive impact on growth, while higher inflation is associated with lower growth. Interestingly, improvements in the budget balance (i.e. movements towards a budget surplus or reductions in the budget deficit) have a positive and significant impact on economic growth. Controls for the real interest rate do not appear to have any significant effect on economic growth.

Although high debt does not necessarily always have deleterious effects on growth, in the case of South Africa, higher debt over the last 60 years has been associated with low growth levels. This may be due to the poor quality of public spending and investment associated with this debt. The result may also be a symptom of a debt overhang, where current investment and consumption are disincentivised as a result of a higher expected tax burden, reducing growth as a consequence. The debt-growth relationship is vital for sustainability as low growth may bring solvency and repayment concerns.

### 3. Forecasts of the debt path

From Figure 2, it is evident that the change in debt depends on movements in the real interest rate, exchange rate, primary balance and real GDP growth. From 2011, the primary deficit and the real interest rate have largely contributed to rising debt, while growth reduced the debt burden. Growth has been relatively weak over this period, however, and contributed to increasing debt in 2020 as a result of the large recession. The high growth rate in 2021 resulted in a small decline in the debt-to-GDP ratio. However, this ratio begins to rise in 2022, increasing at a decreasing rate from 2023 onwards. Increases in the real interest rate, or the cost of debt, and depreciations in the exchange rate raise debt-to-GDP. Consolidatory efforts expected over the medium term will relieve the debt burden.

Figure 2: Debt-creating flows



Moreover, the forecast analysis displays the vulnerability of the debt level and financing needs to adverse shocks to growth, the interest rate and primary balance. Should the fiscus follow its history of persistent primary deficits or face further macroeconomic instability, the debt level and cost of debt may continue to rise beyond government’s targets.

## Conclusion and recommendations

A sustainable debt path in South Africa is one where the fiscus is committed to stabilising debt via mitigating debt service costs, adjusting the primary balance and seeking improved growth and productivity in the economy, while protecting the needs of its population. From the trends shown in the analysis, debt sustainability has been relatively weak.

According to the results, South Africa faces several debt sustainability indicators that are not in its favour. Some of the indicators that do not favour sustainability include sharp increases in debt stock and debt service costs, particularly as measures of GDP and revenue, weak growth against high interest rates, indications of unproductive or growth-depleting debt, and vulnerabilities of the future debt path to macroeconomic shocks. Among those that indicate a promise for sustainability are the debt profile, mainly consisting of domestic debt, and relatively low refinancing and exchange rate risks.

The results are important to consider in the context of the constrained fiscus, which must balance the stabilisation of debt and fiscal policy without sacrificing the provision of vital services, such as education, health and social security. Thus, it is important to ensure that consolidation is growth friendly. Over the medium term, fiscal consolidation is likely to be harsh on South Africans, therefore underlining the necessity to carefully consider the budget and its priorities without compromising the basic rights of the public.

### **The Commission makes the following recommendation:**

- 1. The fiscus, through the Minister of Finance, must strive to rein in rising debt service costs, which comprise a substantial portion of the budget, detracting from allocations for the provision of essential services.*
- 2. The Minister of Finance should exercise and maintain fiscal discipline via active debt management and regular reporting regarding debt accumulation, costs and sustainability under the current strained debt conditions. Such discipline should be exercised throughout all spheres of government.*
- 3. Weak productivity in expenditure must be addressed to create job-enhancing, income-generating growth (i.e. inclusive growth) through quality expenditure and investment-enticing reforms.*
- 4. Investor confidence must be promoted through signalling that public debt is sustainable in the long run to reduce sovereign risk ratings and thereby the cost of debt, as well as to ensure the continuation of economic support.*

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