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South Africa 2007–2020

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United Nations University World Institute for Development Economics Research
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Abstract: This study analyses the performance of macroeconomic policy in South Africa in 2007–2020 and outlines challenges for policy in the coming decade. After remarkable economic growth in 1997–07, South Africa's progress slowed dramatically in 2009 with the global financial crisis. Real GDP growth decelerated more than in other emerging markets and mineral exporting peers and never recovered pre-crisis levels. In addition, the budget deficit that provided counter-cyclical support to the economy was never reigned in, leading to a rapidly rising public debt load. The study assesses three accounts of South Africa's post-GFC growth and fiscal slump: (1) an external story; (2) a macro story; and (3) a microeconomic story. Evidence of strong linkages between micro- and political developments and growth performance is provided.

Key words: macroeconomic policy, economic growth, emerging markets, South Africa

JEL classification: E63, E65, O55

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Note: On 11 February 2022, the working paper was slightly modified to edit the section on wage premiums and change a graph (Figure 11), considering a reader's comment. In addition, source lines and citations under Figures 10 and 11 were updated, as well as in the reference list.

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1 Introduction

To understand South Africa's current macroeconomic challenges, we examine the dynamics of macroeconomic policy in the 2007–20 period. The study is divided in five sections. First, we present key stylized facts for the period. Second, we outline a chronology of important economic policy decisions. Third, we report the results of a qualitative survey of policy stakeholders that conveys the current consensus in South Africa's public sphere on the state of macroeconomic policy-making. Fourth, we trace South Africa's current macroeconomic challenges back to microeconomic policy, in opposition to alternative accounts which see current growth performance as a result of external shocks or macroeconomic management. Lastly, we review the consequences of the COVID-19 crisis and in the final section discuss potential policy options for South Africa.

2 Stylized facts

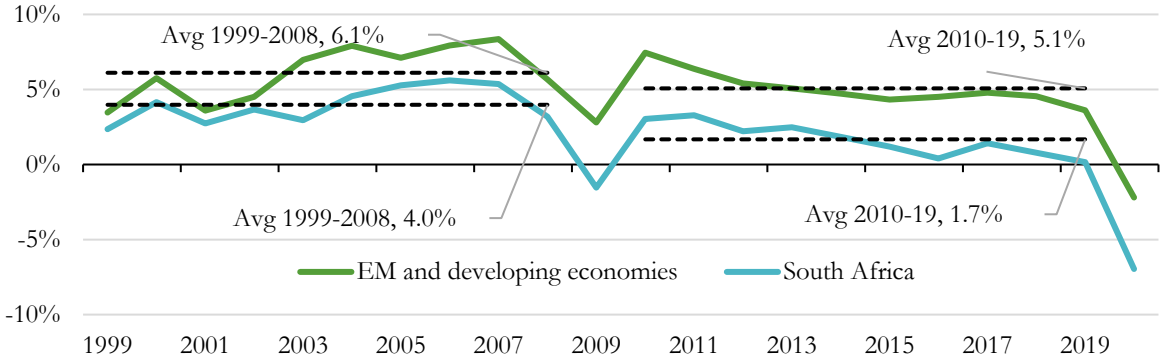
South Africa's macroeconomy has seen many developments since 2007, but two stand out above the rest. First, real GDP growth slowed markedly after the GFC and has not recovered since. Second, the country has more than doubled its debt to GDP ratio and its creditworthiness has deteriorated. Over 1999–2008, GDP growth in South Africa was 4.0 per cent per year, a rate high enough to sustain income per capita gains of 2.6 per cent per year.[1] However, during 2010–19, GDP growth slowed to just 1.7 per cent per year, which only allowed average incomes to rise by 0.15 per cent per annum. Since 2015, income per capita has been declining. The slowdown has led to anaemic job creation in a country with the highest unemployment rate in the world and has interacted with policy and politics in negative ways. South Africa has also been running fiscal deficits for well over a decade. At first, increased spending was meant to provide countercyclical support to the economy after the GFC. But when the recession ended, the country failed to fully curtail the deficit, leading to a large debt build-up. In the rest of this section, we present the key stylized facts to be discussed in the rest of the study.

Economic growth in South Africa decelerated markedly after the GFC and has remained sluggish ever since. After the transition to democracy and the end of the Apartheid system in the early and mid-1990s, South Africa's economy expanded at a robust pace of 4 per cent per year (Figure 1). Still, this rate was slower than the emerging market (EM) and developing country peers, which grew by 6.1 per cent per year, on average. However, growth did not resume after the GFC and instead slowed more than peers. While real output growth decelerated by just 1 p.p. for EM and developing economies in 2010–19, growth more than halved in South Africa to 1.7 per cent. South Africa slowed more than other mineral exporters like Australia, Canada, Chile and Peru, which saw average real GDP growth of 3.9 per cent in 1999–2008 and of 3.1 per cent in 2010–19. Most recently, in 2020, real income plunged 7 per cent due to the COVID-19 pandemic, three times as much as the EM and developing economy average, although less than other mineral exporters such as Peru or Chile.

[1] GDP figures were calculated before Statistics South Africa's comprehensive revision of its national accounts. Although previous and revised growth rates are not exactly the same, these are broadly similar both in terms of magnitudes and patterns.

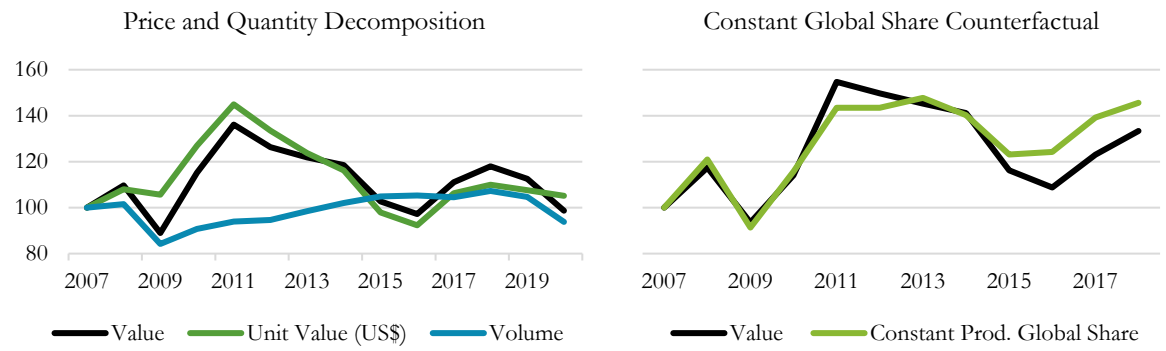
Over the last 15 years the share of exports and investment in output fell while government spending rose. Private investment largely explains the decline in overall investment. Between 2007–19, exports declined by 4 percentage points of GDP (from 33 per cent to 29 per cent), significantly lagging the already low GDP growth. The decline is explained by the poor performance of the export sector, itself mostly driven by international prices, as the price-quantity decomposition of merchandise export values shows (Figure 2). However, export volume growth has been anaemic. South Africa's exports volumes barely surpassed their 2007 levels in 2019 and have steadily lost global market share since 2015. If this market share had remained constant since 2015, South Africa's exports would have been 10 per cent greater in 2018. South Africa's export global share has indeed decreased since 2010 for manufacturing industries such as textiles, machinery, chemicals and electronics, as well as for agriculture and travel and tourism exports. Meanwhile, overall investment fell from 21 per cent of GDP in 2007 to 17 per cent in 2019 (Figure 3). This was essentially driven by private investment, which fell from 15 per cent of GDP in 2007 to 12 per cent in 2019. The decline in private investment is no doubt an ominous development for the economy, one which we will discuss further. Government consumption is the component of aggregate demand that saw most real growth since 2007, increasing 34 per cent through 2019 and rising from 19 per cent of GDP in 2007 to 21 per cent in 2019. In 2020, investment and exports plunged, whereas private consumption was not equally hit, and government consumption increased in real terms, consolidating the decade's trends.

Figure 1: Real gross domestic product growth: annual percentage growth



Source: IMF data.

Figure 2: Exports of goods and services

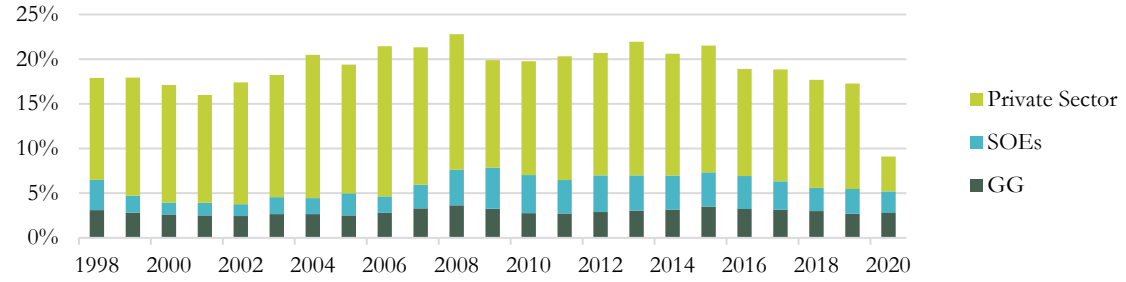


Note: indices, 2007 = 100. The counterfactual scenario is calculated by estimating South Africa's exports after 2007 if the country had conserved its 2004–07 global market share for each HS92 4-Digit product.

Source: authors' elaboration based on South African Reserve Bank (SARB) data, Atlas of Economic Complexity data.

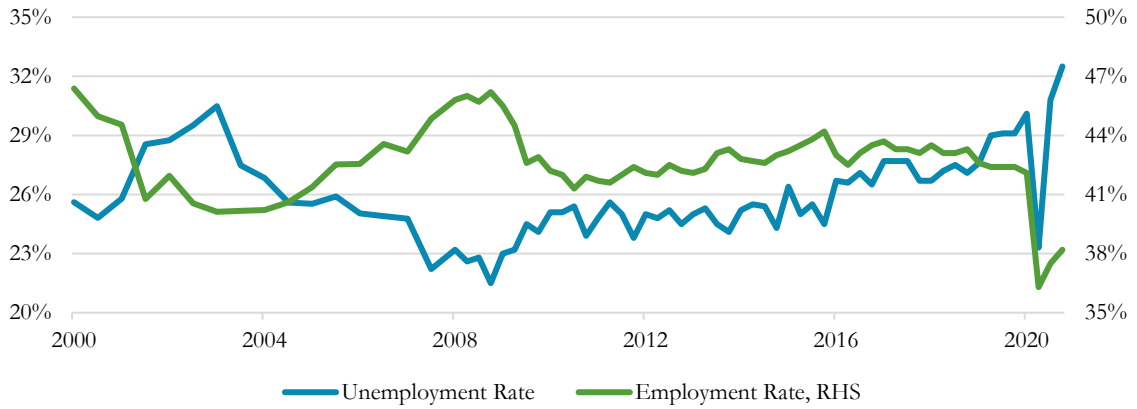
Labour market indicators have deteriorated notably in the last decade and are amongst the worst in the world. The unemployment rate hit a low of 22 per cent in late 2008 and has since trended upwards to 30 per cent before the pandemic and most recently to 33 per cent (Figure 4). The unemployment rate has been consistently the highest in the world, and as with other countries in Southern Africa, unemployment is disproportionately concentrated in youths and women. At the same time, the employment rate fell from a high of 46 per cent in 2008 to 42 per cent before the pandemic and most recently 38 per cent and is also amongst the lowest in the world. The COVID-19 crisis only aggravated these pre-existing trends, leading to higher unemployment and lower employment rates.

Figure 3: Investment by sector, percentage of GDP



Source: authors' illustration using SARB data.

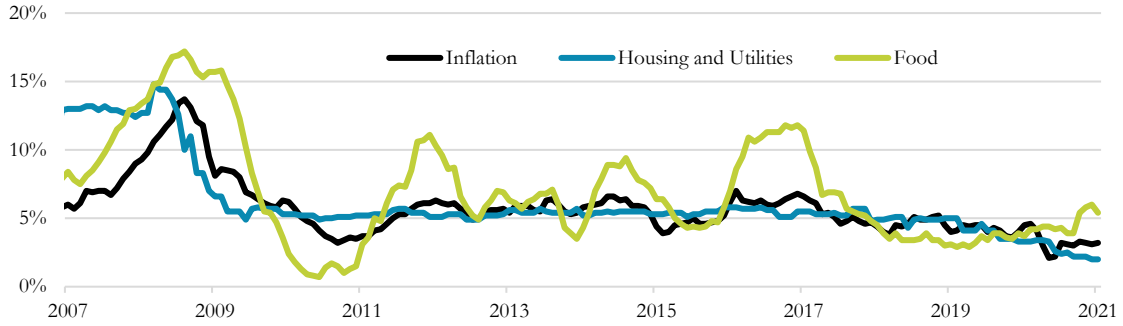
Figure 4: Employment and Unemployment Rate



Source: authors' illustration using Statistics South Africa data.

After the spike in consumer prices just before the GFC, annual inflation has fallen to the mid-single digit range and has trended downward since 2016–17. Year-on-year inflation peaked at 14 per cent during July 2008 just before the GFC, led by a first-round hike in imported food and energy prices (with food representing a large share of consumption basket), and then followed by second-round effects through, for example, union wage agreements (Figure 5). The increase in inflation was not uncommon in emerging markets, which saw a weighted average increase in inflation of 2.7 percentage points in 2008. Similar also to other EMs, inflation rapidly fell to 3 per cent in two years. Through the 2010s, year-on-year inflation never exceeded 7 per cent and has been on a declining path since the end of 2014.

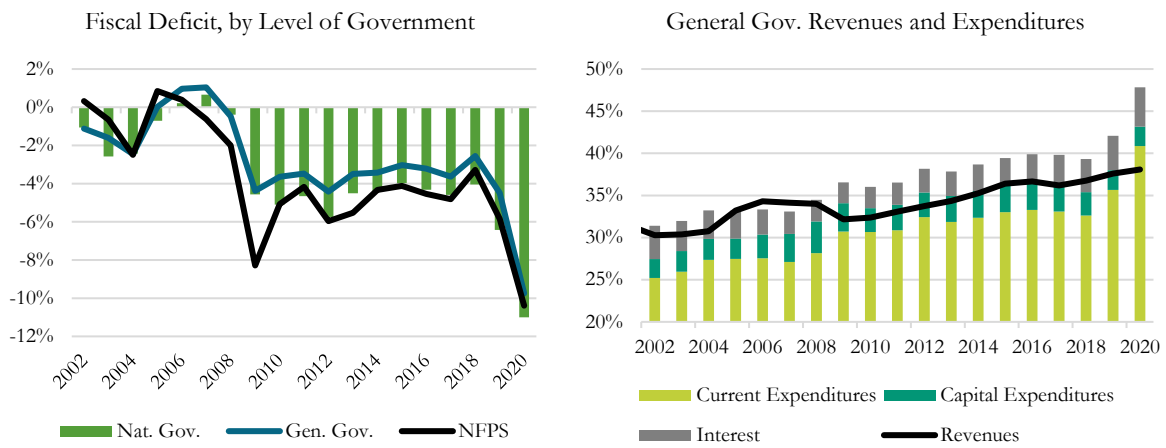
Figure 5. Inflation and core inflation: year-on-year percentage change in consumer prices



Source: authors' illustration using SARB data.

It is not just the real sector and labour market that deteriorated after the GFC. South Africa's fiscal accounts never recovered either. During the Great Recession, the country's non-financial public sector (NFPS) deficit (including SOEs) widened from -0.6 per cent of GDP in 2007 to -8.3 per cent in 2009 (Figure 6). The worsening of fiscal balances during the GFC was mostly due to a fall in tax revenue of around 2.5 per cent of GDP, a deterioration in SOE balances of around 2 per cent of GDP and an expansion in spending of 2.5 per cent of GDP, driven mostly by transfers to other units from the national government, especially local governments. When global growth resumed after the GFC, South Africa did not return to pre-crisis deficit levels. Instead, the country ran NFPS deficits of -4.5 per cent on average in the 2010–19 period, compared to -0.4 per cent in 2001–08. Persistent fiscal deficits were the result of increases in current expenditures at the general government level as well as a rising interest bill. The 2020 recession led to the largest fiscal deficit since the 1940s, due to the large revenue shortfall associated with the decline in economic activity and the increase in extraordinary expenditures.

Figure 6: Fiscal deficit: percentage of GDP

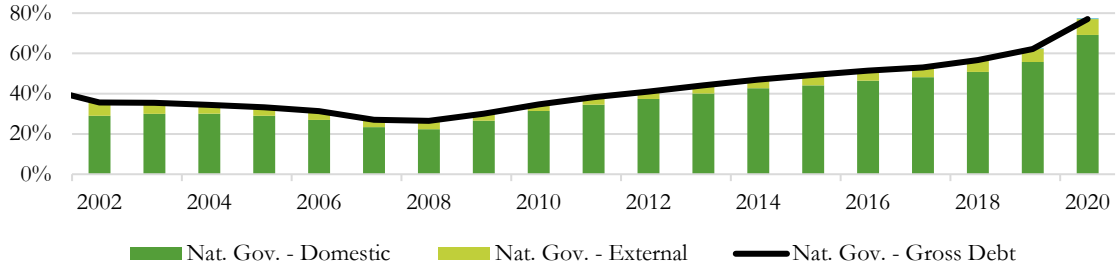


Source: authors' illustration using SARB data.

As a result, the country's debt stock has risen substantially, though with improvements in the composition. South Africa gross debt rose from just 27 per cent of GDP in 2008 to 62 per cent in 2019, an increase of 35 percentage points in 11 years (Figure 7), in line with the increase for net debt. During this period, SA went from being in the 37th percentile of indebtedness among low income and middle-income economies to the 66th percentile. Beyond national government debt, South Africa's SOEs and other entities have increased their government-guaranteed debt-to-GDP ratio to 10 per cent of GDP (or 16 per cent when adding energy independent power producer

contracts, public-private partnerships and SARB's loan guarantees).[2] Despite these developments, however, the country managed to deepen domestic capital markets and extend the average duration of its domestic debt from nine to 14 years and of its foreign debt from seven to 14 years since 2008. Moreover, the depth of the country's financial system has allowed it to reduce the share of external debt from 16 per cent in 2008 to 10 per cent in 2019. The COVID-19 crisis, given its fiscal effects, has led to the highest debt-to-GDP ratio since the end of the Second World War, although without any large changes to the composition of the debt stock.

Figure 7: National government debt level, valued at face value: percentage of GDP



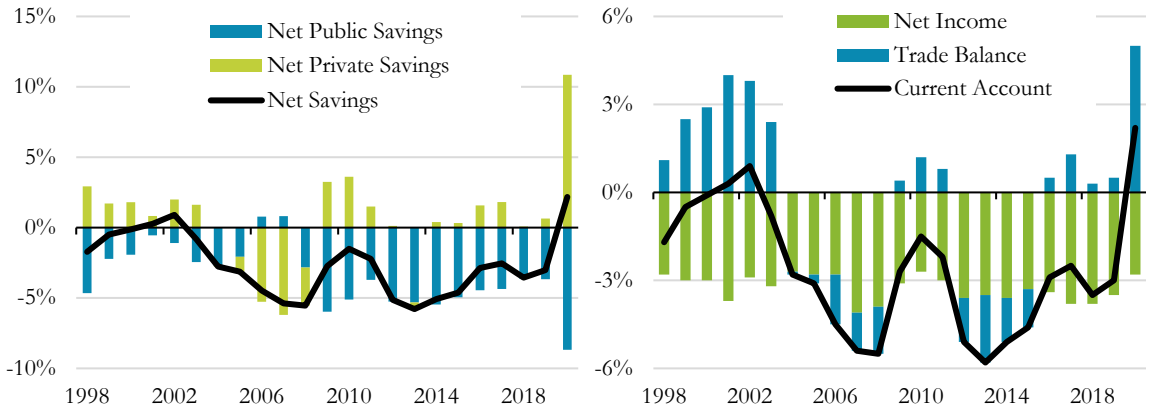
Source: authors' illustration using SARB data.

South Africa has been running an external deficit since the mid-2000s. Between 2007–19, the country ran an average current account deficit of -3.8 per cent of GDP, which can be decomposed into a large negative income receipt (primary and secondary) balance of -3.5 per cent per year and a small and fluctuating trade deficit of -0.3 per cent of GDP. The negative primary and secondary income balance have been increasingly driven by interest payments on non-direct investment — broadly payments to foreign public bondholders — which have risen from 0.7 per cent of GDP in 2007 to 1.8 per cent in 2019. Consequently, in the decomposition of the current account deficit into net savings from the private and public sectors, negative net savings from the public sector largely explain external imbalances from 2010 onwards; after the 2006–08 investment boom, the private sector had positive or negligible net savings and thus did not contribute to the country's overall external deficit (Figure 8). The country's current account deficits have been largely financed by portfolio investment and foreign direct investment inflows. In 2020, South Africa had a positive current account balance, largely because the large increase in the excess of savings over investment in the private sector, due to a collapse in spending and imports, only partially compensated by the larger public deficit.

These stylized facts motivate a series of important questions about the evolution of South Africa's economy and the causes and consequences of the economic slowdown that followed the GFC. South Africa's growth has significantly decelerated over the last decade, while its fiscal stance has progressively deteriorated. What caused South Africa's growth deceleration, and why was it larger than in other emerging markets? To what extent, if any, can the slowdown be attributed to the end of the commodity supercycle? How did South Africa's political cycle and the process of 'state capture' contribute to growth? Moreover, a comprehensive account of macroeconomic policy in South Africa needs to elucidate the relation between growth and fiscal outcomes in the country. Are fiscal imbalances the result of low growth or are these imbalances crowding out private investment? Understanding this relation is key not only for diagnostic purposes, but also to account for what the current low growth/high debt equilibrium entails for South Africa's future.

[2] National Treasury (2021, 2021).

Figure 8: Current account, two decompositions: percentage of GDP



Source: authors' illustration using SARB data.

3 Chronology of fiscal and monetary policy decisions

South Africa's macroeconomic policy paradigm shifted decidedly after the GFC. This new era of policy-making was both a cause and consequence of broader transformations in the underlying economy and domestic politics. Characterizing the last decade and a half of fiscal and monetary policy requires a nuanced reading of the feedback loops between South Africa's political system, domestic and external economic events, and policy-making.

Global economic events and domestic politics shaped key macroeconomic policy decisions at various critical junctures, but these policy decisions also materially affected the country's economic trajectory. At a high level, the period from 2007 onwards was shaped by three presidential transitions that marked the 25th year anniversary of the end of the Apartheid regime and an anaemic economic recovery from the GFC that coincided with the end of the commodity super-cycle. In this context, the NT broadly re-oriented fiscal policy from countercyclical growth support after the GFC to fiscal consolidation attempts after 2013. SARB transitioned from an initial tightening at the start of the GFC to a multi-year easing, and later taking a stronger stance on inflation stabilization after 2014, as reflected by policy rates and the institution's communication. These changes in fiscal and monetary policy occurred against a backdrop of significant political changes, particularly in terms of economic governance institutions, business regulations and state-owned enterprise management. A stylized summary of the overlapping policy timelines is provided in Table 1. The following section seeks to illustrate the main policy features of this period.

Fiscal policy shifted from countercyclical demand support after the GFC to a gradual fiscal consolidation effort. Fiscal policy in the years after the GFC can be heuristically split in two periods: whereas a first period is characterized by the government's response to the global crisis and slow recovery, the second period is best described as an unsuccessful attempt towards fiscal consolidation after a substantial deterioration of the country's fiscal stance. South Africa entered the GFC in a strong fiscal position with large fiscal surpluses and historically low levels of public debt. In this context, the government was able both to withstand a revenue shortfall in 2009/10 (as well as provide personal income tax relief and a reduction in corporate tax rates) and increase both current and capital expenditures. The key elements of the response to the crisis included an expanded public works programme, as well as increases in public wages, social grants and other infrastructure projects implemented through public enterprises.

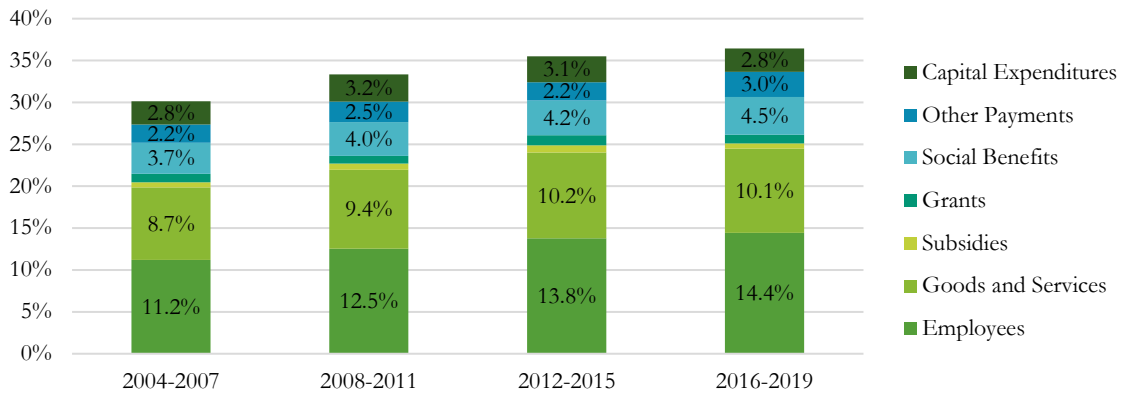
Table 1: Chronology of policy decisions: stylized timelines

		06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Fiscal Policy	Objective	ASGISA			GFC Response				Fiscal Consolidation							COVID-19 Response
	Taxes				CIT Decrease							PIT Increase		VAT Increase		
	Spending		Public Employment Reform				Fiscal Principles		Exp. Ceilings Introduced			CAPEX Contraction		SAA & Post Office Bailout		
Monetary Policy	Stance		Tightening		GFC Response Easing				Tightening						Easing	COVID-19 Response
	Financial Regulations								Basel-III Regulations							
Productive Policies	Growth Strategies	ASGISA				New Growth Path			National Development Plan					ETIGC		ERRP
	B-BBEE		Codes of Good Practice						Amended Codes							
	Other										National Minimum Wage			Expropriation Bill Discussions		
Politics	Presidency	Thabo Mbeki		Kgalema Motlanthe		Jacob Zuma									Cyril Ramaphosa	
	State Capture						Eskom/Transnet Board Reshuffle			Minister Nene Fired		State of Capture Report				

Source: authors' illustration.

As the country recovered from the crisis, fiscal gaps failed to narrow, as the increase in expenditures proved to be persistent. Unexpectedly low growth rates in the four years after the crisis delayed fiscal consolidation, as the authorities interpreted that fiscal stimulus continued to be necessary. By 2012, it was clear that some degree of fiscal consolidation was needed to tackle the fiscal trends, particularly regarding expenditures. Expenditure ceilings were set in the following fiscal years, procurement reforms were implemented to increase expenditure efficiency and some tax rates were raised (VAT, PIT, fuel levy, excise tax for tobacco and alcohol). By 2016, fiscal policy started to significantly tighten up, with a strong contraction in capital investments at the general government level (and a significant contraction of investments at SOE level, falling from 3.8 per cent of GDP in 2013 to 1.4 per cent in 2019). Nevertheless, as the stylized facts section shows, by 2019 fiscal consolidation was insufficient to tackle government deficits. Even if primary deficits were to some degree corrected, the adjustment was insufficient to counter the increasing weight of the interest bill.

Figure 9: General government primary expenditures: percentage of GDP, period average



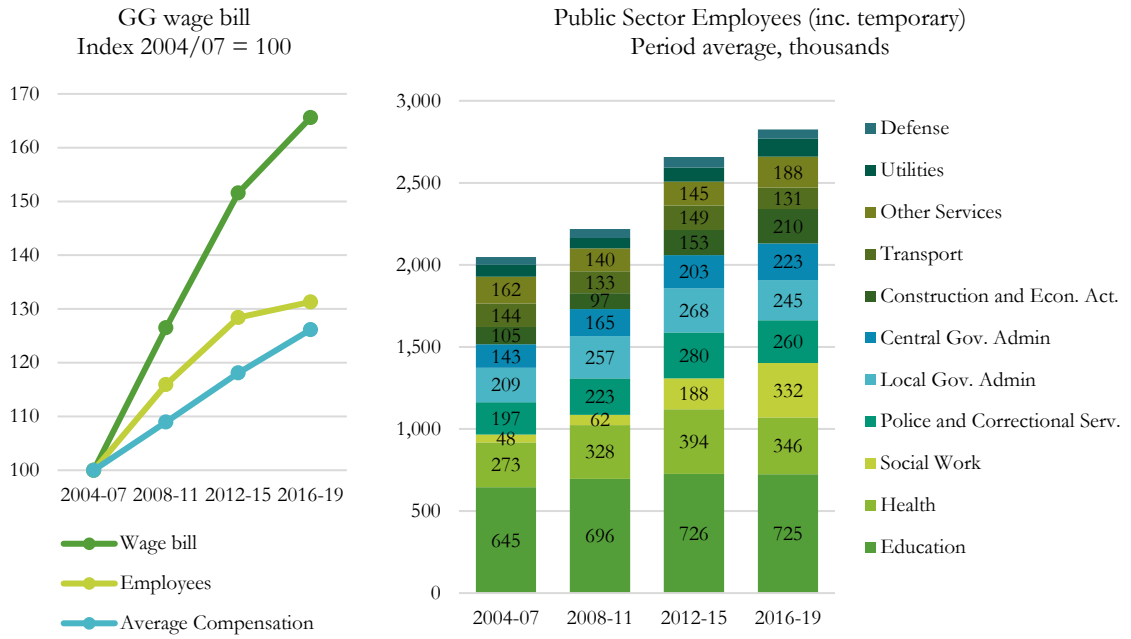
Source: authors' illustration using SARB data.

Despite efforts to contain spending, concentrated on capital investments, fiscal expenditures expanded as a share of GDP. As Figure 9 shows, primary expenditures increased by more than 6 percentage points of GDP in less than two decades. With capital expenditures initially rising in response to the GFC and then cut as part of consolidation measures, the composition of

expenditures shifted from capital spending to current spending. The government wage bill increased the most amongst the various kinds of expenditures (65 per cent in real terms between periods), representing more than half of the overall increase in spending, followed by the goods and services used by government agencies in their current operations (50 per cent in real terms) and social benefits (57 per cent).

In terms of functional expenditure areas, education and health expenses increased by 1.5 per cent and 1.4 per cent of GDP between 2004–07 and 2016–19 (67 per cent and 97 per cent in real terms, respectively), followed by expenditures in economic affairs and social protection by 1 per cent of GDP each (102 per cent and 62 per cent in real terms between periods). The increase in general government primary expenditures took place despite efforts to contain spending at the national level (mainly though nominal expenditure ceilings). These ceilings significantly reduced the year-on-year growth rate of real national government non-interest expenditures, which fell from 7 per cent in 2011/12 to around 2 per cent on most years after 2012/13. After the expenditure ceiling was implemented, non-interest expenditures grew by less than ex-ante estimates of potential growth but grew by more than realized real GDP growth due to persistent growth misses.

Figure 10: Public sector wage bill



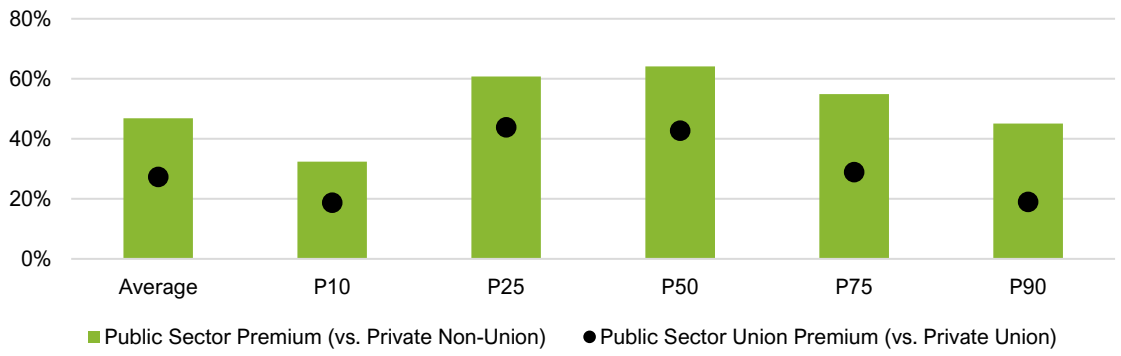
Source: authors' elaboration based on SARB, Post-Apartheid Labour Market Series (Statistics South Africa) data (Kerr et al. 2019).

The increase in the wage bill is explained both by hiring and changes in public sector remuneration. As Figure 10 shows, the persistent increase in the non-financial public sector (NFPS) wage bill, which includes the general government and SOEs, is the joint result of an increase in public employees and in average compensations. The increase in employees between the 2004–07 and 2016–19 periods is explained largely by the increase in social workers, followed by personnel in the education and health systems, and public-employed construction work. These estimates in Figure 10, based on labour force surveys, are significantly larger than estimates based on payroll data (where public sector employees including national, provincial, and local governments, as well as universities and utilities, never exceed 2.2 m): the divergence could be explained by the inclusion of temporary public works programmes in the former. The composition of public employment

has become more qualified over time, as illustrated by the increase in the share of employees with a bachelor's degree from 17 per cent in the 2004–07 period to 25 per cent in 2016–19.

With regards to compensation, the introduction of occupation-specific wage structures at the national and provincial level — which reflect an effort to improve the quality of public service careers — as well as other policy changes such as pay progression and allowances for housing and medical assistance and recurrent wage negotiations, led to an increase in public wages significantly above inflation and nominal GDP, as well as above private wages.

Figure 11: Public sector wage premium: premium relative to non-union formal private workers, controlling by worker characteristics (2010–11)



Note: public sector wage premium is calculated through a Mincerian wage regression with a categorical variable indicating whether a worker is employed in the public sector or at state-owned enterprise, a categorical variable indicating whether a worker is unionized, and an interaction term indicating whether a worker is both employed in the public sector and unionized. Experience, experience squared, years of education, occupation and population group are used as controls in the regression. The same specification using a quantile regression is used to estimate the public sector wage premium at different moments of the income distribution.

Source: authors' elaboration based on Post-Apartheid Labour Market Series (Statistics South Africa) data (Kerr et al. 2019).

An analysis of the national labour force survey in Figure 11 shows a high public wage premium over both private unionized and non-unionized workers. Lower public wage premiums at lower and higher income levels, and high wage premiums at the middle of the distribution are consistent with previous literature, which extensively analyses significant concerns about the quality of income data, and methodological changes in the imputation of earnings which hinder a comparison of public premiums over time.[3] In any case, average and median wage premiums are significantly high and could be introducing additional distortions to the labour market. Despite the increase in employment and wages in the public sector, the deteriorating quality of services such as health, education, and policing in the second half of the decade is brought up in recent literature, given the inability of policy to increase the necessary hiring due to 'a combination of constrained budget ceilings and rising pay'.[4]

The enduring increase in expenditures is also associated to subnational and extra-budgetary spending dynamics. Although economic policy and tax revenues in South Africa are mostly

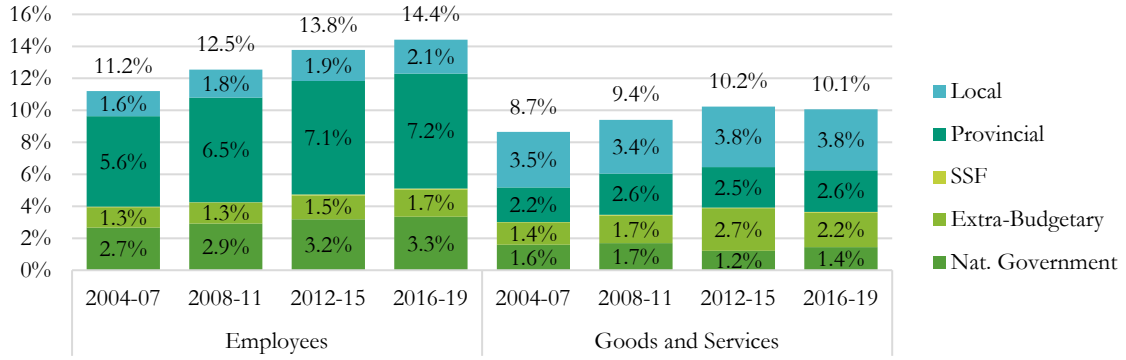
[3] Bhorat et al. (2015); Kwenda and Ntuli (2018); Kerr and Wittenberg (2017); Kerr and Wittenberg (2021). Figure 11 was updated in the latest draft to exclude 2016–17 values, to better account for the difficulties in comparing the evolution of premia over time, given methodological changes in imputation of earnings data, as described in Kerr and Wittenberg (2017).

[4] Sachs (2021).

decided and collected at the national level, provincial and local governments do play a key role in service delivery (for example, in education and health provision), and hence oversee a third and a fifth of government expenditures, respectively. Relying on intergovernmental grants from the national government, provinces and municipalities obtain a significant part of their revenue from an 'equitable share' that can be used at discretion and from funding-grants from the national government.[5]

Provincial governments obtain more than 90 per cent of their revenue from national government grants, whereas local governments obtain 75 per cent of their revenues from property taxes and services provision, and only the remaining quarter through grants. Consequently, the large increase in general government primary expenditures that took place in South Africa after 2007 was to a great extent outside of the national government level, as the increase in the wage bill and in goods and services spending took place mostly at the provincial and local level, as well as extra-budgetary entities (Figure 12). This is not necessarily associated to different expenditure control dynamics at the subnational level, since some of more labour-intensive areas in government are run by provincial and local administration. In the broader non-financial public sector, SOEs have also played a role in expenditure dynamics. Public enterprise investment grew significantly during the GFC, and the persistence of financial imbalances in most state-owned enterprises (SAA, Post Office), as well as procurement irregularities and weak financial management in others (ESKOM), have been a key factor contributing to the reduction in the quality of public spending and the aggravation of fiscal imbalances. Moreover, financial distress has led to an increase in guaranteed borrowing and ultimately bailouts that increased the public and publicly guaranteed debt in unplanned ways.

Figure 12: Primary expenditures by function and level of government: percentage of GDP, period average



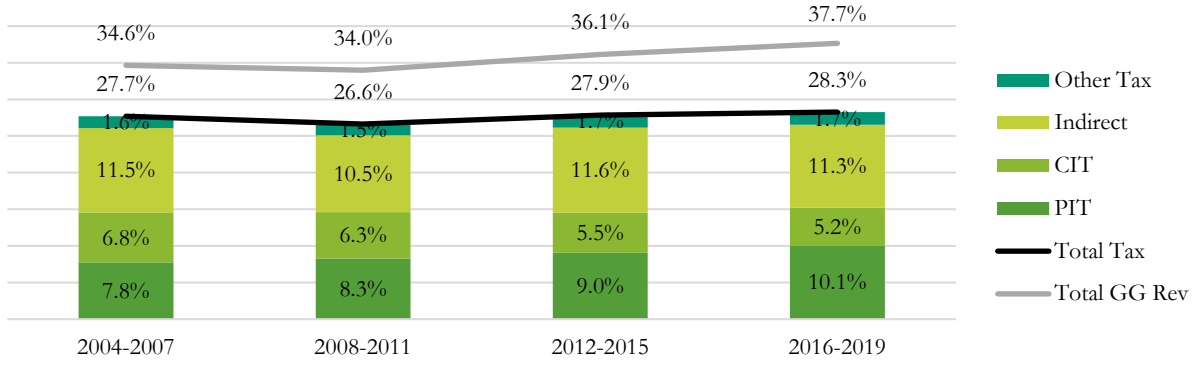
Source: authors' illustration using SARB data.

At the height of the GFC in 2007-09, tax revenue as a share of GDP fell from 27.7 per cent to 26.6 per cent. It only recovered over after almost a decade in 2014. In addition to the fall and protracted recovery in aggregate taxation, the composition of taxes changed notably in the period, with PIT rising significantly and CIT declining. Over these thirteen years, PIT collections grew from 7.8 per cent in 2004–07 of GDP to 10.1 per cent of GDP in 2016–19 as their share in total collections rose from 28 per cent to 36 per cent (Figure 13). Meanwhile, CIT collections fell from around 6.8 per cent of GDP to 5.2 per cent in the same period, lowering their share in total collections from 25 per cent to 18 per cent. In parallel, VAT and excise tax collections returned to around 11 per cent of GDP after dipping to 10 per cent in the aftermath of the GFC. The major changes in tax rates over the period, as illustrated by Figure 14 were the increase in VAT from 14

[5] Ajam (2014).

per cent to 15 per cent in 2018, the reductions to the CIT to 29 per cent in 2005 and 28 per cent in 2009, the 1 p.p. increase to all PIT tax brackets (not pictured) except the lowest in 2015 and the increase of the top tax bracket to 45 per cent in 2017. General government total revenues increased throughout the period due to non-tax sources, including property income, sales of goods and services, fines, and other sources.

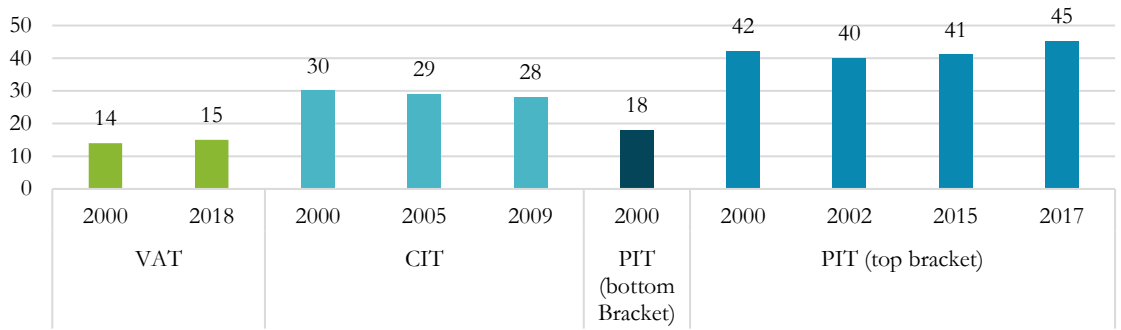
Figure 13: General government fiscal revenue



Note: % of GDP, period average.

Source: IMF data.

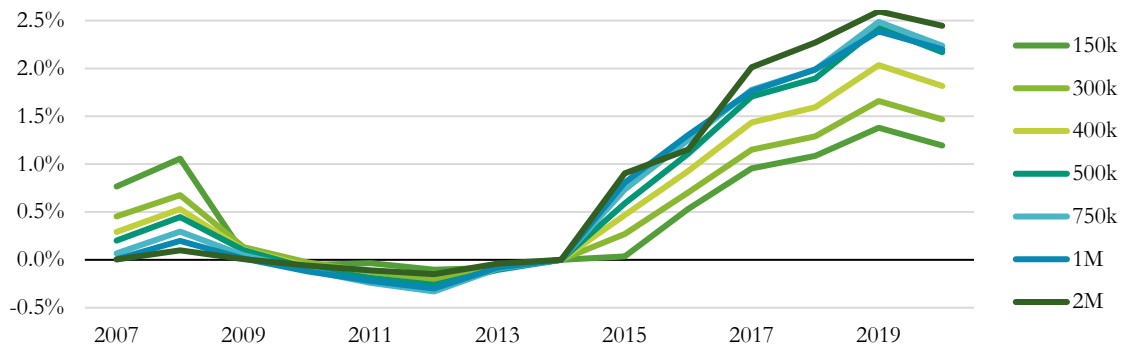
Figure 14: Changes in tax rates, %



Source: authors' elaboration based on data from National Treasury and Maupa, Makwiramiti, Padayachee, Nemataheni, Pain (2019).

PIT thresholds have lagged behind inflation since 2014, leading to higher effective personal income taxes. To see this, we simulate the effective PIT tax rate that individuals at different constant inflation-adjusted income levels (expressed in 2020 Rand) would have faced on every given year, given marginal tax rates, the nominal thresholds for the brackets, and the standard rebate for persons under 65 years old. To appreciate the changes in this effective PIT tax rate, we set 2014 as a base year (prior to the 1 p.p. increase to most marginal tax rates and the start of bracket creep) and calculate the differences relative to that baseline. This is captured in Figure 15, which shows that since 2014, effective PIT tax rates increased by a little over 1 p.p. for persons earning R150k (around three minimum wages) and increased by around 2.5 p.p. for persons earning R2M per year. The increase in the effective tax rate is mostly due to tax brackets being adjusted at a slower pace than inflation. The 1 p.p. increase in most marginal tax rates in 2015 explain less than 20 per cent of the overall increase in the effective tax rate for top income earners and around 0 per cent for persons earning R150k.

Figure 15. Changes in PIT at different real incomes, base 2014

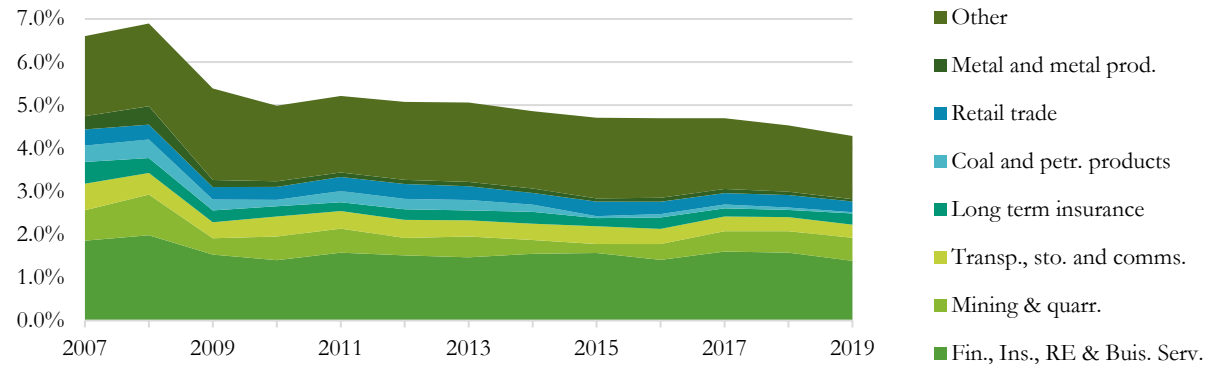


Note: change in effective PIT tax rate, Iicomes in 2020 Rand.

Source: authors' elaboration based on National Treasury data.

The decline in CIT as a share of income and tax collections was broad based and is not explained by the small reduction in the CIT rate. A simple decomposition of the 2.4 per cent of GDP decline in CIT collections from 2007–19 reveals than no single economic sector explains the decline in the ratio (Figure 16). Finance, insurance, real estate and business services account for 20 per cent of the decline in the CIT to GDP ratio. Coal and petroleum explain another 15 per cent, followed by transport, storage, and communication (13 per cent), long-term insurance (11 per cent), metal and metal products (11 per cent), and the remaining 30 economic sectors in the data (30 per cent). The decline in CIT was likely driven by the overall decline in profitability due to slow growth and anaemic economic conditions. The CIT reduction from 29 per cent to 28 per cent in 2009 cannot explain the 36 per cent decline in the overall CIT to GDP ratio.

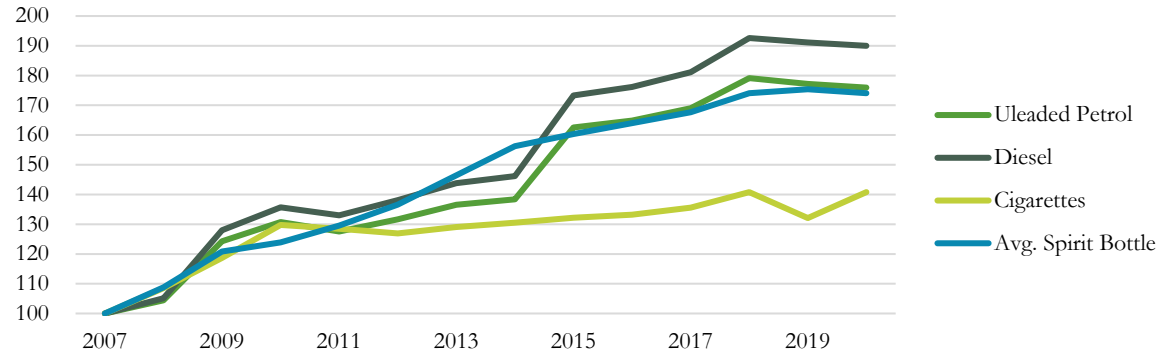
Figure 16: CIT by economic sector, % of GDP



Source: authors' illustration using SARS data.

Indirect taxes generally rose in 2007–19, especially after 2014. In 2007-09 and again in 2014-15, the government significantly increased the general fuel levy and other taxes associated to fuels, such as the Fuel and Road Accident Fund (RAF) Levy. The hikes in these nominal, quantity-based taxes outpaced inflation and amounted to real increases of around 75 per cent for unleaded petrol and 90 per cent for diesel, as shown in Figure 17. Taxes on cigarettes rose by 40 per cent and taxes on alcohol (spirits) rose around 74 per cent. These increases, in addition to the 1 p.p. increase in the VAT rate in 2018, partly explain how the government was able to raise the indirect tax to GDP ratio from the post GFC low of 7 per cent in 2009 to 8 per cent in 2019.

Figure 17: Fuel levy and selected excise taxes

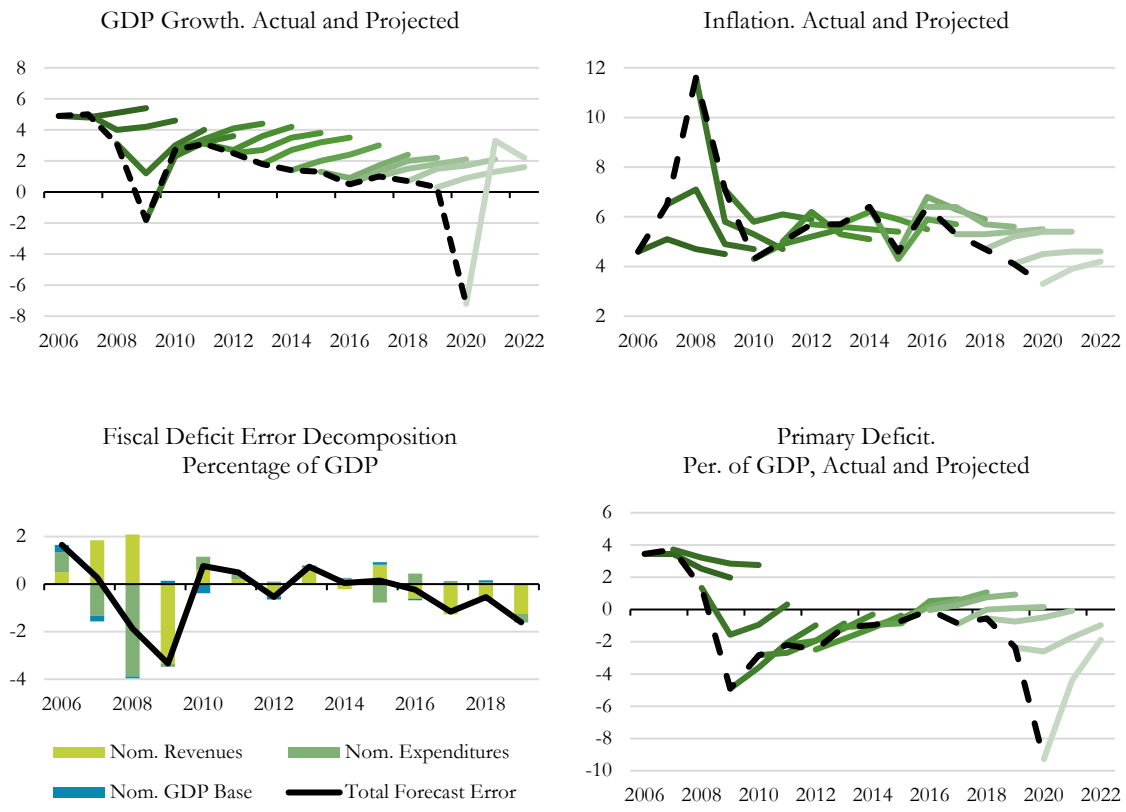


Note: index, 2007=100, inflation adjusted values

Sources: authors' illustration using SARS data.

Over the last decade, public confidence in the South African Revenue Service (SARS) was undermined as the agency was politically captured and long-time bureaucrats left their posts. After SARS commissioner Oupa Magashula resigned in 2013 following evidence that he had improperly offered a job at the institution, Tom Moyane was appointed to the post in 2014. Upon appointment, commissioner Moyane shut down the high-risk investigation unit within the institution, set up a new anti-corruption unit to allegedly investigate the actions of previous SARS commissioners, held back VAT refunds and fast-tracked VAT refunds to politically connected individuals. These actions led to the departure of key bureaucrats from the organization and tarnished the otherwise strong public perception of SARS. It is unclear to what extent these developments contributed to tax evasion and revenue leakages, but the view that the effect was large is not uncommon.

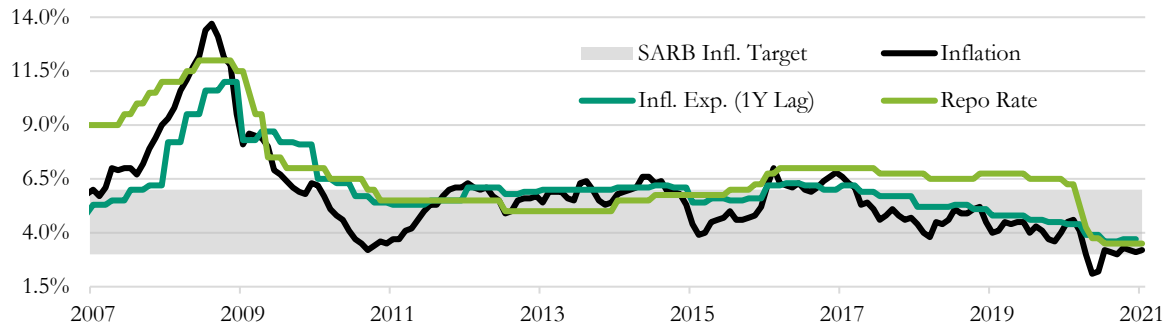
Figure 18: Budget forecast and execution errors



Source: authors' elaboration based on National Treasury data.

A key element of the policy planning process in the last decade has been the systematic overestimation of GDP growth after the GFC, and the more recent overprediction of inflation. As Figure 18 shows, national governments budgets — but also private consensus forecasts and the IMF's World Economic Outlook — have predicted optimistic GDP growth paths systematically since GFC. More recently, since 2016, inflation has also been overpredicted in budget projections. These projections are key to the policy and budget planning process, and hence systematic errors could have influenced policy decisions, such as planned expenditures and public and private wage negotiations amongst others. It is notable that beyond large expenditure and revenues forecast errors during the years of the GFC, overall errors on the deficit oscillated around zero until 2016, when they began to trend downward, mostly due to revenue underperformance. Even after 2016, expenditure ceilings have kept 'next-year' forecast errors on the spending-side relatively low, as nominal ceilings were relatively respected. The *direct* contribution of GDP forecast errors to budget deficits has been minor, although the indirect contribution (through adjustments in wages or other expenditures) could be potentially larger. Medium-term budget forecasts since 2016 have nevertheless failed to anticipate the path of primary deficits, although, as we will see in following sections, next-year primary deficit errors do not explain a substantial share of accumulated debt.

Figure 19: Inflation and inflation expectations: year-on-year percentage change



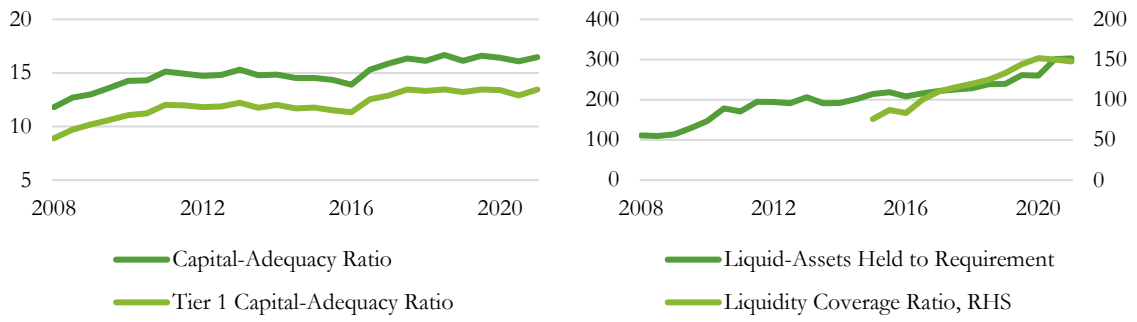
Source: authors' illustration using SARB data.

South Africa has had two monetary tightening cycles and three easing cycles since 2007. The first tightening cycle occurred just before the beginning of the GFC, when inflation spiked from 6 per cent in early 2007 to 13 per cent in mid-2008, mostly due to global factors such as food and oil prices, forcing SARB to raise the repo rate 300 bps from 9 per cent to 12 per cent (Figure 19) and bring the growth of the money supply to a halt. The inflationary spike was short lived, in part due to the global deflationary effects of the GFC that spilled into South Africa. With the start of the GFC, SARB embarked on a large, multi-year easing cycle. To support the recovery and accelerate growth to pre-crisis levels, SARB loosened monetary policy significantly by lowering the repo rate by 650bps to 5.5 per cent between late 2008 and early 2011, when inflation bottomed at the lower end of SARB's band at 3 per cent. However, inflation slowly crept up from the 3 per cent low to the top of the band (6 per cent) by early 2012, where it remained until late 2013. Thus began a second tightening cycle. To bring inflation down to the midpoint (4.5 per cent), SARB reigned in monetary policy, raising the repo rate by 200bps between late 2013 and early 2016. From 2017 onwards, inflation began to fall, in part because of exogenous disinflationary pressures, and SARB loosened monetary policy to support growth. In this period, authorities emphasized the mid-point of the inflation target, 4.5 per cent, more clearly and consistently in its communications, which

may have anchored inflation expectations at the new, lower level.[6] During the COVID-19 crisis, the repo rate was lowered by around 275 basis points to 3.5 per cent.

South Africa implemented Basel-III regulations in 2013, which may have increased bank funding costs and led to higher real borrowing rates. Basel-III imposed various changes to South Africa's financial system, most importantly increased capital requirements and increased liquidity requirements. The reforms increased capital requirements to 4.5 per cent of risk weighted assets (RWA) for Tier-I capital and 8 per cent of RWA between Tier-I and Tier-II capital. In addition, Basel-III introduced two liquidity requirements. First, that liquid assets must exceed one month of outflows under a stress scenario. Second, that banks have more stable funding sources and match the duration of liabilities with assets more closely. South African banks were already well capitalized, so the increased capital requirements did not imply large changes to their capital structure (Figure 20). However, liquidity requirements did force changes on bank balance sheets, for example by complicating funding long term debt (like mortgages) with short term sources (like checking account deposits). Olds and Steenkamp (2021) find that while nominal bank funding costs are below their pre-GFC level, they have risen around 150bps since 2013.[7] They also find that nominal bank funding spreads (relative to reference rates) are higher than before the GFC, despite the reduction in global interest rates. It remains unclear exactly how much of the increase in bank funding costs since 2013 is due to market conditions (e.g. country risk) and how much is due to prudential regulation, like Basel-III. Nevertheless, the increase in bank funding costs has been partly transmitted onto higher real borrowing rates. Beyond Basel-III, South Africa also implemented in the past decade amendments to its National Credit Act (last one in 2019), which is also suspected to have potentially impacted on domestic credit cost.

Figure 20: Banking sector indicators



Source: authors' illustration using SARB data.

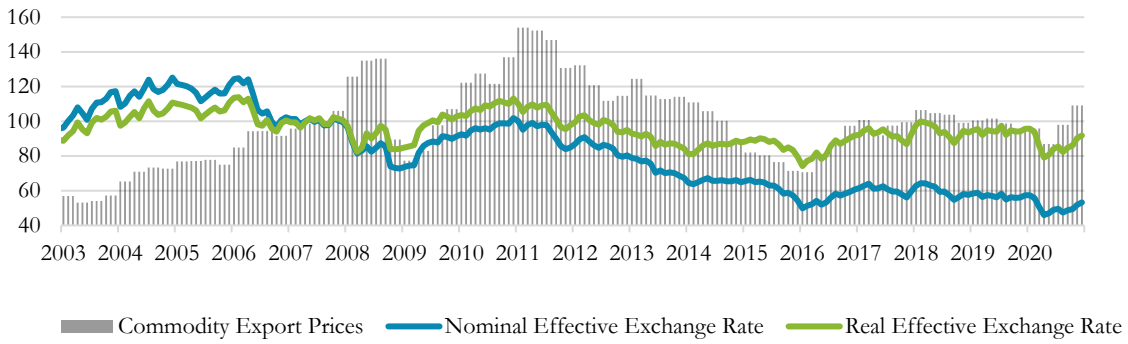
Fiscal and monetary policy were largely coordinated in 2007–19, with two exceptions, and responded appropriately to external shocks. The exchange rate has also been a shock absorber. As inflation spiked before the onset of GFC in 2007–08, SARB reacted by reigning in monetary policy with hikes to the repo rate, applying downward pressure on inflation. However, at the same time, both the NFPS and general government's primary deficit widened by 1.6 per cent, pressuring interest rates and inflation upwards. Thus, during the initial stage of the GFC, monetary policy focused on inflation while fiscal policy on activity. In the 2009–12 period, both fiscal and monetary policy provided countercyclical support to the economy. Likewise, both fiscal and monetary policy pulled back from 2012 to roughly 2016, as it became evident that the shock from the GFC was permanent, not transitory. However, from 2017 onwards, as inflation fell and SARB loosened

[6] Loewald, Faulkner, and Makrelov (2019).

[7] Olds and Steenkamp (2021); Steenkamp (2021).

monetary policy to support the country's anaemic growth and began to emphasize the lower, 4.5 per cent inflation midpoint, the fiscal consolidation attempt continued on the revenue side but not on the expenditure side, potentially applying net upward pressure on inflation and interest rates.[8] During this last period monetary policy focused on activity and fiscal policy on sustainability. The government and monetary authority responded aggressively to the GFC and COVID-19, two large exogenous shocks. Notably, however, there was no clear reaction to the decline in commodity export prices in 2011. The nominal and real exchange rates did act as a shock absorber to movements in commodity prices however, appreciating in 2009–11 as commodity prices rose and depreciating from 2011 to 2016, as commodity prices fell (Figure 21). Soobyah and Steenkamp (2019) analyse this phenomenon in detail, arguing that the rand's movements are largely explained by changes in the economy's fundamentals, in particular commodity export prices, but that exchange rate itself has only a small impact on output.[9]

Figure 21: Real and nominal effective exchange rates



Note: index, 2007=100.

Source: authors' illustration using SARB data.

Beyond fiscal and monetary policy, South Africa experienced a tightening of product and labour market regulations in the last decade, likely affecting the investment climate. The persistent market power of dominant players and the role of state-owned enterprises in key sectors in South Africa has often been commented as a key factor disincentivizing entry and contributing to the lack of dynamism in the economy.[10] In parallel, labour market rigidities have been often suspected of significantly constraining job creation in the formal sector.[11] The late 2000s and 2010s saw a further tightening of regulations regarding product and labour markets, as well as investments. Recent articles show rising market power partially as a result of barriers to entry, uncompetitive practices, and a highly concentrated network industry environment unconducive to competition.[12] The introduction of a national minimum wage in 2019 above sectoral minimal wages already in place and implying a relatively high minimum-to-median wage ratio (in comparison to both advanced and emerging markets) has often been considered as potentially disincentivizing new employment in specific sectors, although initial quantitative evidence does not show a significant impact neither on hourly wages (an indication of non-compliance), nor on employment.[13] Initiatives such as the

[8] Loewald, Faulkner, and Makrelov (2019).

[9] Soobyah and Steenkamp (2019).

[10] Amodio et al. (2020); Purfield et al. (2016); Dauda et al. (2019).

[11] Fedderke (2012); Go et al. (2009).

[12] Thakoor and Coronel (2020).

[13] Bhorat and Stanwix (2021).

new mining charter, a proposed land expropriation bill (introducing 'land expropriation without compensation'), and new requirements in Broad-Based Black Economic Empowerment have, despite their intended goal of addressing racial imbalances, increased uncertainty for investors.

B-BBEE policies tightened significantly in 2012–13. Black Economic Empowerment (BEE) policies in South Africa date back to the BEE Commission Report (1998), the original B-BBEE legislative framework (2003), and the original Codes of Good Practice (2007), which created a scorecard that awarded all firms points based on seven criteria, including ownership (20/100), preferential procurement (20/100), and others. Compliance was and remains voluntary, but only compliant firms can secure contracts with state-related entities. In 2012–13, B-BBEE policies were significantly tightened. Compliance loopholes where closed, a watchdog entity was introduced (the Verification Regulator), the practice of 'fronting' (providing fraudulent representations to earn B-BBEE points) was made a crime, punishable by jail, fines, and/or prohibitions from business with state-related entities, and the seven compliance pillars were reduced to five, resulting in a greater weight for the ownership pillar. To date, the reforms have not achieved the original goals they had set themselves, with less than 50 per cent of firms in the Johannesburg Stock Exchange reporting less than 25 per cent of Black ownership.

Over the last fifteen years, South Africa drafted and implemented a series of strategic planning documents that reflect the shifting priorities of policy makers. Strategic planning has been key to post-Apartheid policy-making since the Reconstruction and Development Programme (RDP) of 1994, which set a development agenda for the first ANC government. RDP was followed in 1996 by the Growth, Employment and Redistribution (GEAR) macroeconomic strategy, which brought to the foreground of policy planning issues related to fiscal policy (amongst other areas of macroeconomic policy) and labour markets. In the last two decades, at least five economic policy and development plans have been published. All documents share a common theme of drawing paths to 'transform the economy' into a more inclusive one and setting common goals in terms of growth, employment, poverty and inequality reduction.14 The documents also share a common 'developmental state' approach to the extent they implicitly or explicitly establish the state as the key agent to achieve development goals. Nevertheless, the documents emphasize different aspects of policy, which ultimately mirror the changing priorities of policy makers (as well as the specific political and administrative context of each document). The Accelerated and Shared Growth Initiative for South Africa (ASGISA), published in 2006, focused on six 'binding constraints' to growth and employment creation: government capacity, currency volatility, infrastructure backlogs, skill shortages, international competitiveness of tradable sectors and inequality and marginalization (Table 2). ASGISA was replaced in 2010 by the New Growth Path (GNP), which placed a larger role on public investment in infrastructure and public services as a 'job driver' in the economy. The National Development Plan (NDP) of 2012 included a larger variety of themes, including new issues such as health, low carbon economy and security, focusing less on growth and employment than previous plans. Within the NDP framework, the National Treasury published in 2019 an economic reform agenda titled Economic Transformation, Inclusive Growth, and Competitiveness, which highlighted the modernization of network industries and barriers to entry in product markets. The most recent Economic Reconstruction and Recovery Plan was published in the COVID-19 era and in addition to previous goals, adds new priority areas such as localization and public employment interventions and places new themes such as the green economy, gender equality and energy security under the spotlight.

[14] Manuel (2014).

Table 2: Economic policy and development plans, 2007–20

Plan	Areas	
Accelerated and Shared Growth Initiative for South Africa (2006) Six 'Binding Constraints' to Growth and Employment Creation	1. Government Capacity 2. Currency Volatility 3. Infrastructure Backlogs 4. Skill Shortages of Skills 5. International Competitiveness of Tradable Industry and Services 6. Inequality and Marginalization	
New Growth Path (2010) Five 'Jobs Drivers' of Large-Scale Employment Creation	1. Public Investment in Infrastructure 2. Labour-Absorbing Activities across Sectors 3. Knowledge and Green Economy 4. Social Capital in Social Economy and Public Services 5. Rural Development and Regional Integration	
National Development Plan (2012) Ten 'Critical Actions' to Eliminate Income Poverty and Reduce Inequality	1. Social compact to reduce poverty and inequality, raise employment and investment 2. Strategy to address poverty (employment, social wage) 3. Professionalization of public service and strengthening of accountability 4. Private investment in labour-intensive areas, competitiveness and exports 5. Education accountability chain 6. Phase in national health insurance, with a focus on public health facilities, professionals and reducing cost of private care	7. Public infrastructure investment focused on transport, energy and water 8. Environmental sustainability and resilience to future shocks 9. New spatial norms and standards (densification, transport, upgrading settlements and fixing housing market gaps) 10. Reducing crime (strengthening criminal justice, improving community environments)
Economic Transformation, Inclusive Growth, and Competitiveness (2019) Five 'Themes' for Inclusive Growth and Competitiveness	1. Network Industries Modernization 2. Barriers to Entry and Ownership Patterns 3. Labour-Intensive Growth in Agriculture and Services 4. Industrial and Trade Policy 5. Export Competitiveness	
Economic Reconstruction and Recovery Plan (2020) Nine 'Priority Areas' and Six 'Enablers' for a more Sustainable, Resilient and Inclusive Economy	*Priority Areas* 1. Infrastructure Investment 2. Employment-oriented localization, reindustrialization and export promotion 3. Energy security 4. Tourism recovery 5. Gender equality and economic inclusion of women and youth 6. Green economy 7. Mass public employment interventions 8. Food security 9. Macro-economic interventions	*Enablers* 1. Resource Mobilization 2. Regulatory changes and enabling conditions for ease of doing business 3. Capable state 4. Social compacting 5. Skills development 6. Economic diplomacy and integration with Africa

Source: see text.

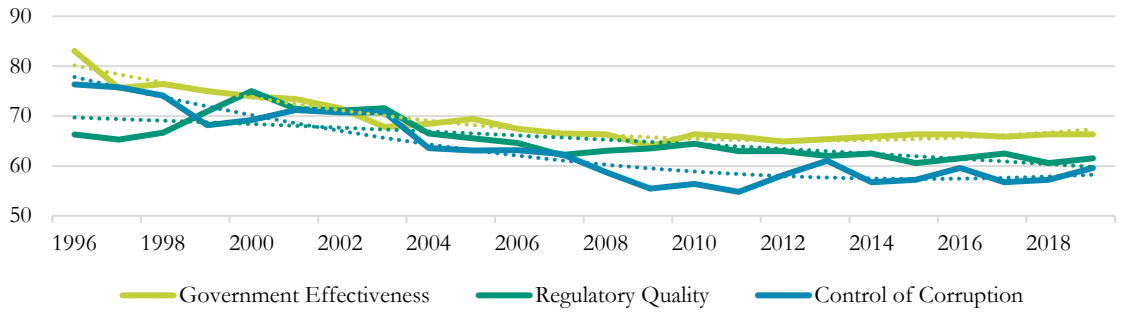
Most notable are the gradual disappearance of macroeconomic policy from the policy planning foreground over time– partly due to the relative success of the monetary policy framework and the (later reversed) fiscal consolidation — as well as the increasing relevance of network industries and generally economic infrastructure are informative. Moreover, it is also remarkable that the challenge of integration of the country's labour markets has remained a top priority throughout more than two decades, which is consistent with the country's difficulties in reducing structural unemployment. Finally, as it has been observed before, strategic plans have become increasingly longer and have discussed a more diverse set of issues over time.[15] Although these policy documents do not guide all aspects of policy, they have symbolic importance, as they represent

[15] Mikhaylov (2018).

how each administration has sought to portray its own priorities and agenda, and hence provide a portrait of the evolution of South African policy thinking.

Economic policy decision-making took place against the backdrop of the rise and fall of the 'state capture' era. The Zuma period, in particular after 2012, has been often characterized in the public sphere, in particular after the Public Protector's *State of Capture* report, as years of 'state capture', where a power elite centred around President Zuma and the Gupta family sought to consolidate its power through a repurposing of government institutions.[16] The consolidation of power by this elite took place through the placement of key individuals in central offices — in state-owned enterprises (Eskom, Transnet), decentralized entities (such as the Public Investment Corporation) and ministries — and the removal of bureaucrats and politicians opposed to this agenda. Although events related to the state capture process had taken place since the early 2010s, the dismissal of finance minister Nene in December 2015 and ultimately the collection of evidence by Public Protector Madonsela in a public report in 2016, as well as a report published by the South African Council of Churches, made this process widely known. These reports, the 2017 *Gupta leaks*, and the eventual election of Cyril Ramaphosa as ANC president in December 2017 prompted the resignation of President Zuma after being recalled by the ANC's National Executive Committee and a prosecution for corruption of the country's High Court. The newly appointed President Ramaphosa rapidly removed many of the ministers publicly implicated in state-capture, reinstated previously displaced ones and led investigations of corruption in key SOEs and the revenue service.

Figure 22: World Governance Indicators, percentile rank



Source: World Governance Indicators data.

The Judicial Commission of Inquiry into Allegations of State Capture was instituted in 2018 to investigate allegations of state capture and is expected to publish a report of its findings in 2021. When evaluating the performance of economic policy through the 2010s, it is key to understand how 'state capture' was the environment in which many of these policies took place. Beyond the capture of specific public offices, 'state capture' has defined a period characterized by a broad increase in public and private corruption and a generalized reduction in government effectiveness (Figure 22). The need to both control expenditures, particularly procurement and SOE-related expenses, and mobilize revenues were shaped by the bureaucratic struggle of the civil service to perform their duties in a highly politicized and fragile context.

[16] Bhorat et al. (2017).

4 An emerging consensus on macroeconomic policy?

To understand the domestic assessment on the performance of South African macroeconomic policy, we conducted expert interviews with policy stakeholders, focusing on both the 2007–19 period, and on the future of policy. As part of the research we carried out for this study, we interviewed twenty-two policy stakeholders from government institutions, private sector, international financial institutions and academia. The interviews were divided in three sections: (1) questions on the 2007–19 period, (2) response to COVID-19, and (3) future of macroeconomic policy post-2021. The complete questionnaire is included in Table 3. We also include in Table A1 in the Appendix an anonymized set of quotes. In the rest of this section we will analyse themes in the respondents' answers, highlighting both consensus and divergence in their views.

Table 3: Stakeholder interview questionnaire

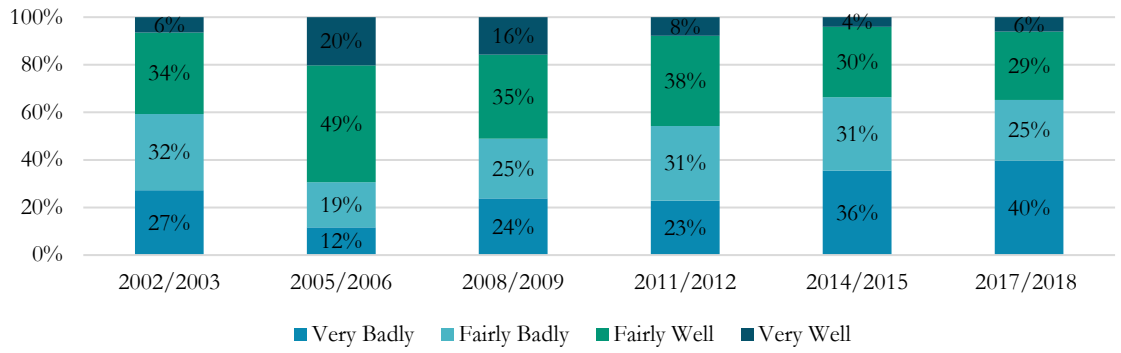
Period	Questions	
2007–19	**Macroeconomic Objectives** What do you think macroeconomic policy objectives were in the 2007–19 period?	
	Fiscal Policy How do you evaluate it: Was it appropriate with regards to the economic/business cycle? Was it appropriate with regards to sustainability? What was its contribution to allocative efficiency?	
	Monetary and Banking Policy How do you evaluate it: Was it appropriate with respect to the business cycle? Were inflation targets appropriate? Was the level or volatility of the real exchange rate a problem? What was the impact of Basel-III regulations?	
	Microeconomic Policy What microeconomic policy changes, if any, were macroeconomically significant? What policies contributed to changes in economic productivity? What significance did state-owned enterprises have through the period?	
	Miscellaneous Was the National Treasury consistently over-optimistic in its projections? Is there anything you would like to add about this period?	
2020–21	**Response to COVID-19** What is your evaluation of fiscal and monetary policy in response to the COVID-19 crisis?	
2021-	**Fiscal Policy**	What changes would you introduce to the tax structure?
		What changes would you suggest in spending programs?
		Would you set targets on the fiscal deficit?
		Would you change the structure of public debt?
	Monetary Policy	Would you change inflation targets?
		Should SARB consider new tools such as quantitative easing, forward guidance, twists, FX? Or is the current toolkit sufficient?
		Should SARB concern itself with the level or volatility of the real exchange rate?
	Other Policies	What policy changes would you introduce to increase economic productivity?

Source: see text.

Interviewees are only broadly in agreement on the diagnosis of the South African economy. The responses reveal significant dissent on key issues, in particular regarding the way forward. All of the interviewees recognize the under-performance of the South African economy over the last ten years. Fiscal policy is seen by most as having worsened through the period, while there is a more mixed view on monetary policy. Most respondents share the need to contain fiscal imbalances and enforce reforms to spark growth, though a few argued the contrary: that the attempts at fiscal consolidation, particularly after 2016, had caused the growth slump. There are however differences in both substance and style between interviewees, which are likely to correspond not only to

personal background and thoughts, but also to their institutional affiliation. Progressive-leaning economists in the sample are less likely to share the overall positive view on SARB's objectives and on the country's COVID-19 response. With regards to policy recommendations, although there is broad agreement that changes in both expenditures and taxes are necessary, there is little consensus on what should be the priorities of fiscal as well as structural policies in the next few years. The pessimistic tone regarding growth and fiscal performance in expert interviews is mirrored by a parallel evolution of public perception of the government's handling of the economy, which after an improvement in the mid-2000s, significantly worsened after the GFC and has been negative for most of last decade (Figure 23).

Figure 23: Public perception of the government's handling of the economy, share of respondents



Source: authors' illustration using Afrobarometer data.

Most interviewees agree on both the periodization and characterization of fiscal policy. The majority of respondents distinguish within the last decade a post-GFC period taking place until the early 2010s and a fiscal consolidation process implemented since 2013/14. Respondents tend to see fiscal policy as countercyclical and appropriate after the GFC, whereas the second period is mostly considered a failure, given the persistence of fiscal deficits and the increasing government debt. The current fiscal stance is characterized as unsustainable by the majority of interviewees, although the culprits of fiscal imbalances tend to vary. Public wage agreements, inefficient procurement and goods and services expenditures, and state-owned enterprise finances have all been mentioned by different interviewees. Corruption and capture of SOEs and procurement in the early 2010s are also mentioned by many stakeholders. There appears to be a consensus that expenditures have become more allocatively inefficient over time, with an increasing importance of current expenditures of dubious productivity. Revenue-side adjustments are not as frequently mentioned by interviewees, although challenges related to tax enforcement (particularly CIT and PIT), counter-productive rate increases, and low tax buoyancy are occasionally cited. Optimistically biased growth projections are often mentioned as a driver of unsustainable fiscal policy, as growth and CPI below forecasts undermined the ability of nominal primary expenditure ceilings to contain spending. Nevertheless, regarding the 'bad projections' prognosis, many interviewees raise the point that forecast errors were not just a problem for government but were also common in the projections of domestic and international private institutions. In any case, forecast errors are highlighted by some respondents as the culprit for an inadequate fiscal policy response to the business cycle.

Monetary policy is predominantly characterized as successful in bringing down inflation in the period, although some interviewees question its objectives and implementation in recent years. With some notable exceptions, most interviewees see monetary policy as counter-cyclical throughout the period. The inflation targeting regime is celebrated by many respondents as having 'stood the test of time' and contributed to historically low levels of inflation, with only few

interviewees seeing the regime as a weakness for monetary policy. Interviewees often brought up the question of whether monetary policy could have been tighter or looser and generally whether targets were appropriate, with some arguing that South Africa's inflation was too high relative to other EMs and others in favour looser policies, particularly after 2015, to ease government finances and competitiveness. Nevertheless, even respondents who argue for a looser monetary policy recognize that SARB was an anchor of the system given the uncertainty that characterized the period. When asked about exchange rate volatility, although many interviewees consider it a problem for business, the consensus amongst respondents (with some clear dissents) is that the flexible exchange rate is working well and is an important shock absorber.

Practically all interviewees consider structural or microeconomic policies during the decade as a failure and they see them as contributing to low growth and a poor business climate. Different interviewees emphasize different areas of policy as the most relevant in the period, but there appears to be an overarching consensus on the failure of these policies to generate growth and employment. Among the most frequent references are the tightening of labour market regulations, the worsening of state-owned enterprise management, an increasing uncertainty related to property rights, a deterioration of government service delivery (at both national and subnational level) and increasing levels of red tape. In particular, Eskom and labour market regulations are the most frequent issues mentioned in interviews.

The fiscal and monetary response to COVID-19 has both defenders and detractors, the latter focusing less on design than on implementation. Most interviewees agree that the reprioritization of expenditures implemented in 2020 was appropriate, and that the increase in social expenditures was timely. The weak pre-COVID fiscal stance is often mentioned as a justification for the fact that the fiscal response was less strong than in many advanced economies, although other interviewees criticize the government's response as insufficient given the magnitude of the crises. Moreover, many interviewees criticize the slow implementation of the loan guarantee scheme and of wage payments. With regards to SARB's actions — lowering policy rates and ensuring liquidity — most interviewees see these as appropriate.

Regarding the future of fiscal policy, there is an implicit agreement amongst interviewees that the efficiency of expenditures needs to be increased and that the tax structure could benefit from significant changes, but there are significant differences in the details of proposed changes. Most respondents argue for the need to reallocate expenditures to growth-enhancing and employment-creating policies, as well as social policies. To make room for these, they argue in favour of the need to Improve state-owned enterprise finances, reduce the public wage bill and improve the efficiency of public procurement. On the revenue side, except for the need to strengthen SARS and to reduce unproductive tax expenditures and special regimes, there seems to be less of a consensus. Different interviewees propose introducing a wealth tax, increasing carbon taxation, lowering or maintaining CIT, lowering or increasing PIT and lowering or increasing VAT. Many interviewees are in favour of deficit targets as a way to address the deficit bias in fiscal policy and propose additional ceilings on the debt and the wage bill, others are sceptical on the issue of whether these instruments provide an adequate commitment structure. Most interviewees do not see a need to modify the current debt structure, but some do argue that issuing more short term and external debt, given the steepness of the yield curve, would lower costs, at the moment.

Although most interviewees agree on the soundness of the current monetary policy framework, there is still significant variance regarding positions on the current inflation target. Interviewees disagree on what SARB's attitude should be towards the current inflation target in both the short-term and the medium-term. Many interviewees are against lowering inflation targets in the short-term, as it does not appear to them as a policy priority in the post-COVID recovery era. Others, on the contrary, see the need to lower the inflation target or formalizing the 4.5 per cent midpoint

target into an explicit one as a necessity to align inflation to trade partners. Inflation targeting sceptics see the need to incorporate employment and growth targets into SARB's objectives. With regards to deploying unconventional monetary policy instruments, most interviewees see SARB's current toolset as sufficient, whereas IT sceptics appear as more open to instruments such as quantitative easing. A similar differentiating line appears with regards to exchange-rate management policies, as IT-supporters do not see monetary policy as able to affect in the medium-term neither the level nor the volatility of the exchange rate.

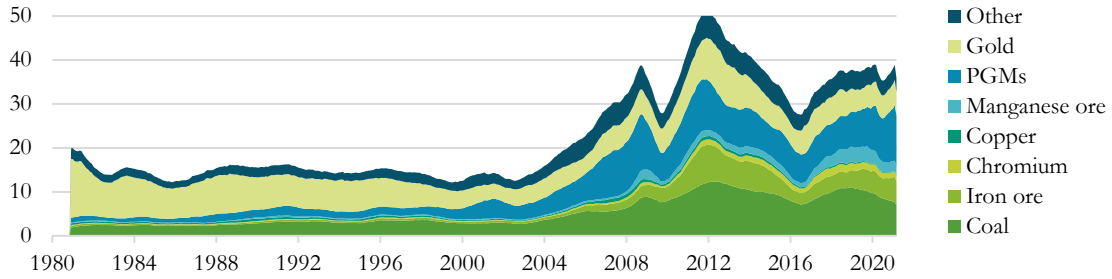
5 Three narratives of South Africa's macro outcomes

There are several stories that can plausibly explain two key macro outcomes: South Africa's growth slowdown and large increase in public indebtedness. These stories are not mutually exclusive, but only some of them stand up to scrutiny. A first account posits the role of external factors, especially the decline in mineral export prices from 2011 onwards. A second set of narratives emphasize macro policies. Some highlight the central role that fiscal policy played in the large debt build-up and attribute to it the crowding out of private investment, especially from 2017 onwards. Other macro narratives contend that the fiscal consolidation efforts from 2014 onwards was counterproductive and self-defeating. A third, quite different account, emphasizes micro developments. It claims that sectoral developments, especially in the energy, transport, and mining sectors, created a drag on aggregate productivity and may have impacted animal spirits leading to a reduction in investment. This story emphasizes the role of state capture and declining quality at key SOEs as key culprits for slowing growth and growing fiscal imbalances. While these stories are not new, in this section we try to examine and quantify them to guide the subsequent discussion on the effectiveness of macroeconomic policy in the recent period.

5.1 An external narrative

A frequent account of South Africa's last decade is centred around the growth and fiscal consequences of the end of the commodity super cycle. In stakeholder interviews and in public discourse, South Africa's growth deceleration is often understood in the context of the end of an era of ever-improving terms of trade. Given the relative importance of the mining sector to South Africa's economy, a stagnation or reduction in commodity prices would ultimately imply a shock to economic activity primarily through a direct income effect, and the impact on mining exports and investment, but also through channels such as the availability of international finance and the real exchange rate. Moreover, in this account, the mining industry directly and indirectly affects fiscal balances through tax revenues, lower nominal GDP growth and other channels. The end of the commodity supercycle certainly entailed a price shock to South Africa's mineral production values and exports, as illustrated by Figure 24. Nevertheless, although South Africa has indeed benefitted less from favourable commodity export prices in the last decade, we will argue that terms of trade do not provide a satisfactory explanation for the growth deceleration after the GFC or the country's fiscal performance.

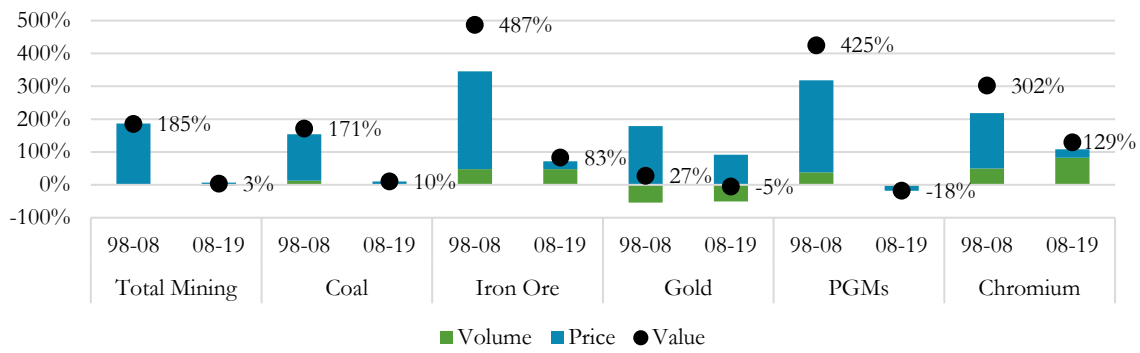
Figure 24: Mining production: current US$ billion, 12-month moving sum



Source: Statistics South Africa, SARB data.

The shift in global prices has indeed affected the performance of the mining sector in the last decade. The beginning and end of the commodity supercycle does coincide with the expansion and subsequent stagnation of mining production values in South Africa. The rise in commodity prices in the early 2000s led to an expansion in the value of mining production and exports (Figure 24). But as Figure 25 shows, the increase in mining production values in the period up to the GFC is mostly explained by the increase in dollar prices of commodities. In parallel, the stagnation in production values after the GFC (or the peak in 2011 and subsequent downward swing) are also mostly explained by price adjustments rather than volume adjustments. In any case, these changes are dwarfed by the fact that South Africa's mining output in constant terms has stagnated since the 1970s, and as a share of the economy has declined from around a third in the 1950s, to a fourth in the 1970s, and less than 15 per cent in the 1990s, mainly as gold production declined. In dollar terms, gold production values had not surpassed US$20 billion after 1980.

Figure 25: Mining production, volume and prices, percentage change in period,

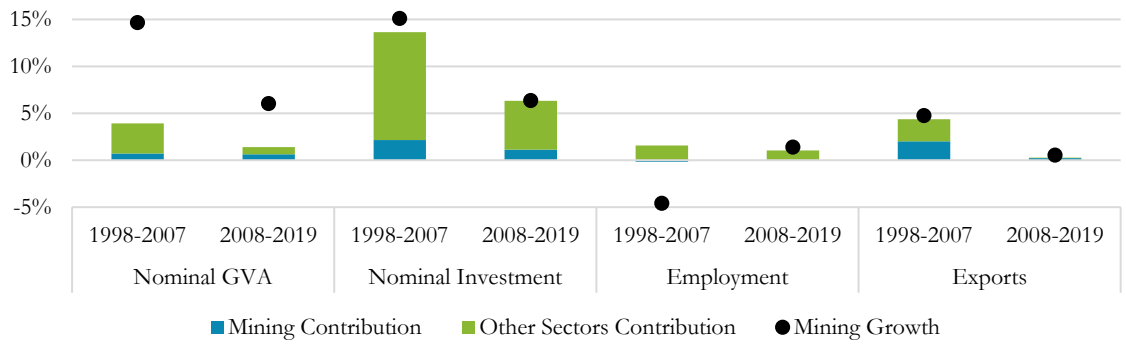


Note: value in US$.

Source: Statistics South Africa, SARB data.

The direct impact of the decline in the value of mining production does not explain satisfactorily South Africa's economic cycle. The country's mining economy contributed 0.7 p.p. out of 3.9 per cent to the growth in nominal GDP in the 1998–2007 through the growth acceleration (Figure 26). Nevertheless, the slowdown in economic growth in the last ten years has little to do with the direct impact of reduced nominal mining gross-value added, as it is the rest of the economy's contribution that explains the downturn in GDP. Similarly, although mining contributed a higher share to gross fixed capital formation in the growth acceleration period, the downturn in investment in the last decade is not directly related to the mining sector. Nevertheless, the commodity price shock to mining exports has indeed significantly contributed to export stagnation through the 2010s.

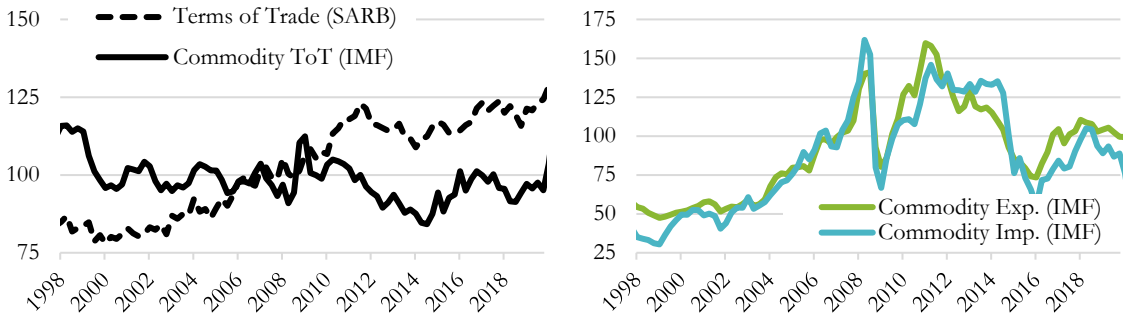
Figure 26: Mining contribution to economic activity, period compound annual growth rate



Source: SARB, Statistics South Africa, DTI, GDDC data.

South Africa's terms of trade do not tell an unambiguous story consistent with the 'external narrative', as the decline in export commodity prices was compensated by a decline in import prices. Contrary to what would be expected in the simplest version of the 'external shock' story, South Africa's terms of trade have actually improved since 2007. According to SARB's statistics, the country's overall terms of trade (including commodity and non-commodity trade in goods and services) have steadily risen by around 30 per cent over 2007–19 (Figure 27). This story masks important developments in import and export commodity prices, however. Between January 2007 and mid-2008, in the run up to the GFC, commodity import prices (mostly oil) approximately doubled and export prices (mostly metals and minerals) rose by roughly 60 per cent, only to collapse in the second half of 2008. Commodity prices then recovered rapidly starting in mid-2009 and peaked in early 2011. After that peak, import prices remained relatively stable until late 2014 but export prices began to slide, falling by 60 per cent between 2011–16, marking the end of the commodity super cycle. Given the positive correlation between commodity import and export prices, overall commodities terms of trade have been generally less volatile than the two series taken separately. Nevertheless, movements in commodity import and export prices effects do not necessarily balance themselves out, as they interact with the economy through different supply and demand channels. In any case, it is worth noting that South Africa's terms of trade have not worsened dramatically in the last decade, and certainly not in a way that would have an unambiguously negative effect on economic activity and the external accounts.

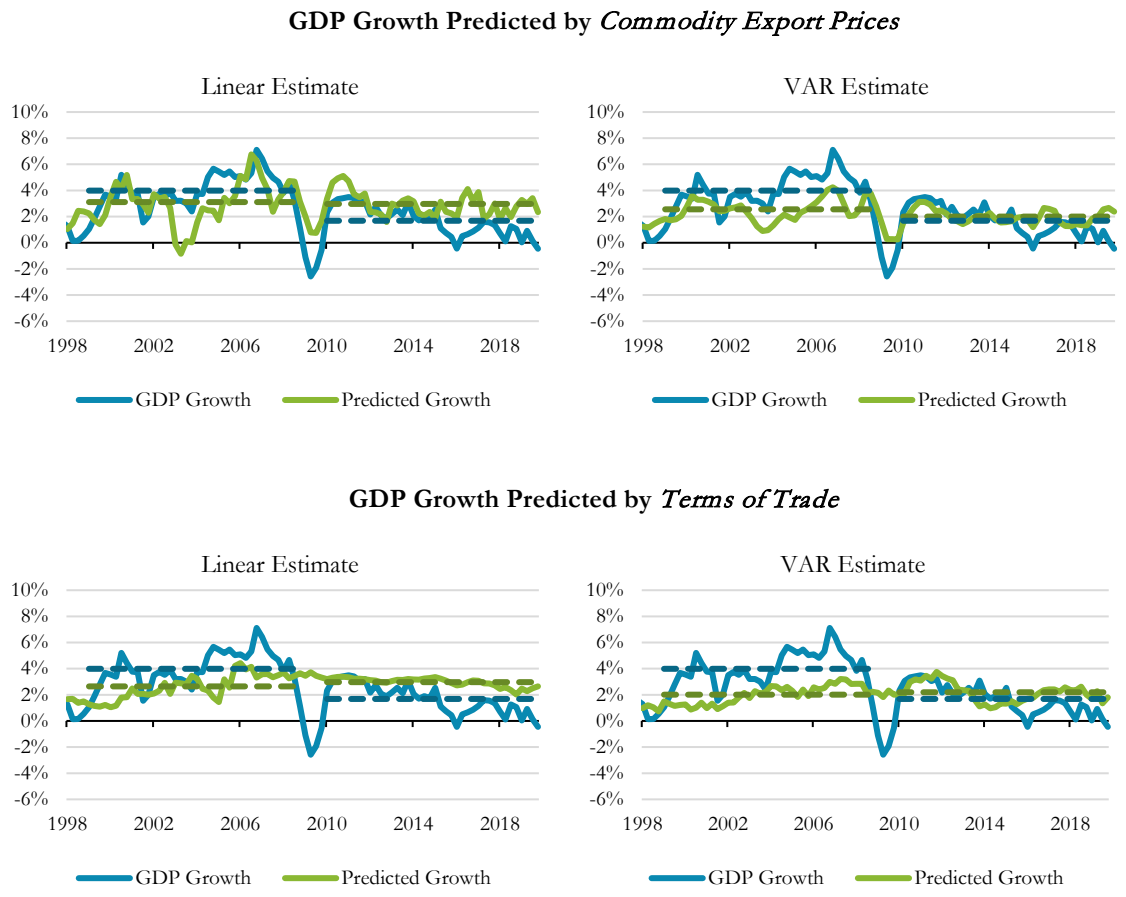
Figure 27: Terms of trade and commodity terms of trade



Note: indices, 2007 = 100

Source: SARB and IMF data.

Figure 28: GDP growth, as predicted by mining production value or terms of trade growth rates



Note: linear estimates are calculated in an OLS regression with quarterly GDP growth (year-on-year changes) and in mineral exports growth in constant Rand, or alternatively barter terms of trade index growth. Each estimate in the predicted growth series is calculated using the previous 15-years of data (60 quarterly observations) to account for evolving elasticities over time. Dashed lines represent 10-year averages. VAR estimates are calculated in a model with four lags of quarterly GDP growth (year-on-year changes) and an exogenous mining exports growth variable (with four lags) or terms of trade growth. Growth is forecasted in-sample for the 1998-2019 period using additive residuals method.

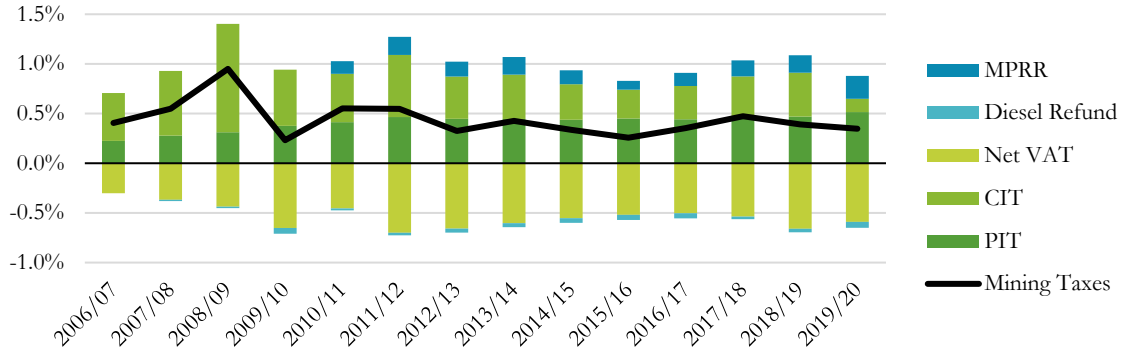
Source: authors' estimates based on Statistics South Africa and SARB data.

Considering the 'indirect effects' of the end of the commodity super cycle, the fall in export commodity prices can explain at most a quarter of the decline in GDP growth, and does not explain at all the current fiscal dynamics. Given the supply and demand linkages between the mining sector and the rest of the economy (as well as potential wealth effects), it is worth asking to what extent the terms of trade shock might have indirectly affected the non-mining economy. When predicting GDP growth through commodity export mineral export values in a time series regression, one can see that changes in mining production values (and similarly in commodity export prices) do not correctly predict the observed growth deceleration, particularly after 2015, as only 0.14 p.p. out of a 2.3 p.p. can be accounted by mining's performance (Figure 28). An even less satisfying result is obtained when barter terms of trade are used to predict GDP. In a second exercise, we predict GDP growth after a VAR estimation, and obtain similar results. In the VAR estimate, the predicted average growth rate is 0.6 p.p. lower in the 2010–19 period than in 1999-2008, the actual average growth fell 2.3 p.p. between these two periods (and hence explains at most a quarter of the variation). Again, with the same VAR methodology but using terms of trade as explanatory variable, the predicted growth slowdown is nil. This suggests that there are factors

outside of the variation in commodity prices that are needed to understand growth underperformance.

The direct impact of the decline in the value of mining production does not explain either the fiscal cycle. In many resource-based economies, the end of the commodity supercycle has implied also a fiscal shock, as tax revenues dependent on a single sector or commodity were not prepared to rapidly adapt to lower international prices. This is not necessarily the case in South Africa. When examining the tax contributions of the mining sector, one does not observe the sector possessing an outsized contribution to taxes. Mining directly explains on average 4-5 per cent of PIT, 8-9 per cent of CIT, 3-4 per cent of domestic VAT (although with a negative VAT contribution given the role of refunds, of which the sector explains 20 per cent). The mining sector does pay the Mining and Petroleum Resources Royalty (MPRR) since the royalty was enacted in 2008. Nevertheless, considering all sources of revenue and taxes, the mining sector does not have an outsized contribution to the tax base, and has been relatively stable as a share of the economy over time, as Figure 29 shows.

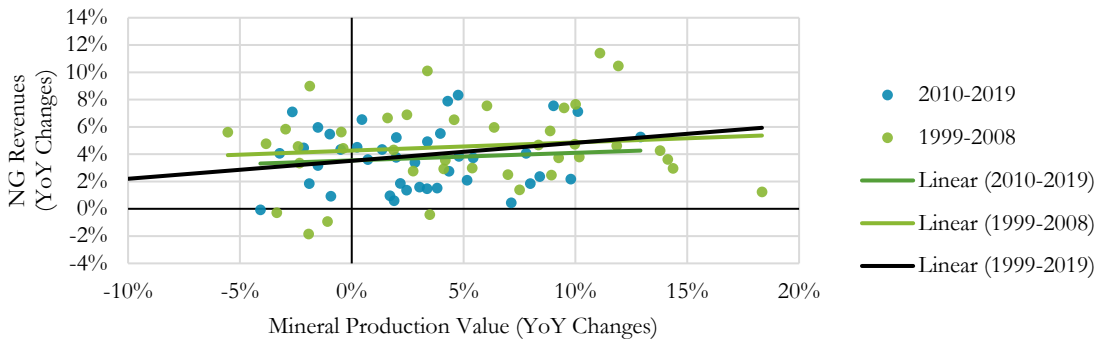
Figure 29: Taxes to mining sector, percentage of GDP



Source: authors' estimates based on SARS data.

Terms of trade are insufficient to explain South Africa's fiscal dynamics. Beyond the direct contributions of the mining sector, variations in mining production values do not appear to adequately explain variations in national government revenues. Mining-revenue elasticity calculated for the 1999-2008 and 2010–19 is not statistically significant, whereas the joint 1998-2019 elasticity is significant (has a value of 0.6) but only explains 2 per cent of revenue changes (Figure 30).

Figure 30: National government revenues and mining production value, growth rates

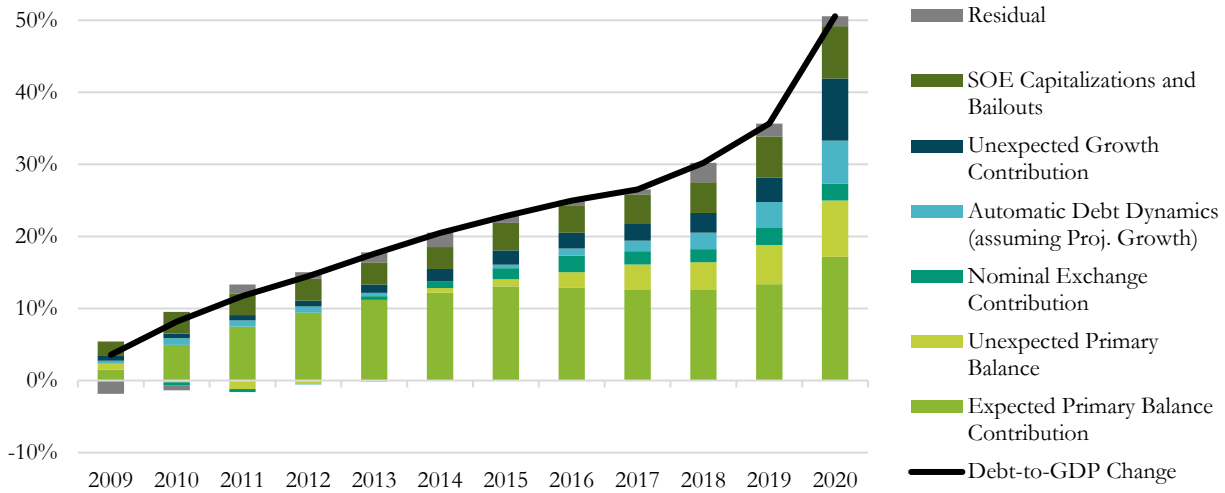


Source: authors' estimates based on Statistics South Africa and SARB data.

5.2 A macro narrative

There are various accounts of how macro policies contributed (or did not contribute) to South Africa's debt build-up and growth slowdown. In this sub-section, we will explore these accounts, focusing first on the role of macro policies in the debt build-up and emergence of vulnerabilities. Secondly, we will assess the accounts through which macro policy affected growth. One of these accounts holds that large public deficits crowded out private spending (through a credit access channel or a Ricardian behaviour channel), lowering growth, while the other holds that fiscal adjustment efforts from around 2012 onwards were self-defeating, also lowering growth.

Figure 31: Decomposition of rising debt to GDP ratio, contribution to percentage change since 2008



Note: the debt decomposition is calculated using the methodology described in Sturzenegger and Zettelmeyer (2007) for debt dynamics based on a local currency debt accumulation equation. Debt dynamics are broadly estimated using the equation:

$$d_t - d_{t-1} = -\frac{P_t}{Y_t} + \frac{(1-\alpha_{t-1})d_{t-1}}{(1+\pi_t)(1+g_t)} s_t^e + \frac{d_{t-1}}{(1+\pi_t)(1+g_t)}(i_t - \pi_t - g_t - \pi_t g_t)$$

Where d_t is national government debt-to-GDP at year t, P_t is the local currency primary balance, Y_t is nominal gross domestic product, π_t is the nominal GDP inflation rate, g_t is real GDP growth rate, i_t is the effective nominal interest rate, α_t is the share of local currency denominated debt in total debt and s_t^e is the rate of nominal depreciation (weighted by the share of foreign currency denominated debt for each currency). Additionally, the primary balance is decomposed into the 'expected' primary budget balance in the National Treasury Budget Review of the previous year (expressed in calendar years, not fiscal years) and the 'unexpected' primary balance (the difference between expected and unexpected). The third term in the equation is separated into an automatic debt dynamics term — estimated using budget review projected growth and including the revaluation of inflation-linked bonds — and an 'unexpected growth' contribution (the difference between realized and expected growth). Finally, below-the-line SOE capitalizations and bailouts are added, and a residual is calculated as the remaining term. The graph exhibits the cumulative accumulation of national government debt since 2008, adding terms for each year.

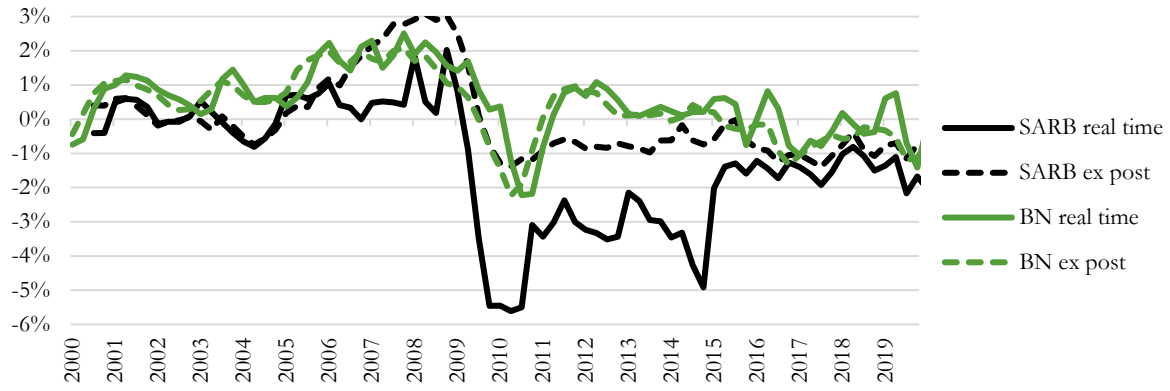
Source: authors' elaboration based on SARB and National Treasury data.

Planned fiscal policy was the largest driver of South Africa's debt build-up in the 2007-19 period. Forecast errors in real GDP, inflation, and the budget balance played the next largest role, although less than half of the former. Weak fiscal control over SOEs also contributed to the debt build-up. At a high level, South Africa's fiscal policy in the decade after the GFC was to maintain the budget deficits which had provided countercyclical support to the economy. A decomposition of the drivers of South Africa's rising indebtedness (Figure 31) illustrates the consequences of this policy. South Africa's debt to GDP ratio rose 36 p.p. between 2008 and 2019 and a large share of that

increase (17 p.p. or 48 per cent of the total) was due to planned primary deficits (13 p.p.) and autonomous debt dynamics (4p.p.), which can be reliably forecast by policy makers. A quarter of the increase (25 per cent) in the ratio can be attributed to forecast errors in unexpected primary balances (5 p.p.), mostly on the revenue side, and unexpected growth misses (3 p.p.). Another important share (6 p.p. or 16 per cent of the total) is explained by below-the-line SOE recapitalizations and bailouts. The remaining share of the increase in South Africa's debt-to-GDP ratio (12 per cent) is explained by nominal depreciation of the Rand (2 p.p.) and a residual term that captures interactions (2 p.p.). In summary, South Africa's rising debt and increased macro-fiscal fragility can be mostly understood as the outcome of planned fiscal policy, but there is something to be said about projection errors (which account for a quarter of the increase), and SOE bailouts, which also added to the debt stock. This account, however, is agnostic as to whether fiscal policy was appropriate from a cyclical or allocative point of view.

To assess whether fiscal policy responded appropriately to the economic cycle, we must first characterize the cycle as understood in real time and with the benefit of hindsight. To simulate a time-series containing the real-time estimates of SARB's output gap, we extract the most recent estimate for the output gap at the end of each quarter, as in Botha, Kuhn and Steenkamp (2020). We then produce a time series by replicating this procedure for the entire period. In this way, we know what output gap policy makers thought they were facing at each moment in time. This 'real-time' output gap measure puts South Africa almost 6 per cent below potential output in 2009–10 and again in 2014 (Figure 32). In contrast, SARB's most recent output gap estimate indicates that South Africa's economy was below potential by just under a percentage point, on average, in the years that followed the GFC, indicating large differences between SARB's real-time and ex-post estimates. The persistent negative sign of SARBs output gap has been criticized by Greenwood-Nimmo and Steenkamp (2020), who show that differences in actual GDP and potential GDP do not systematically correct themselves over time, as required by the intuitive definition of the output gap.

Figure 32: SARB output gap in real time and ex-post, percentage of potential output



Source: authors' elaboration based on SARB data.

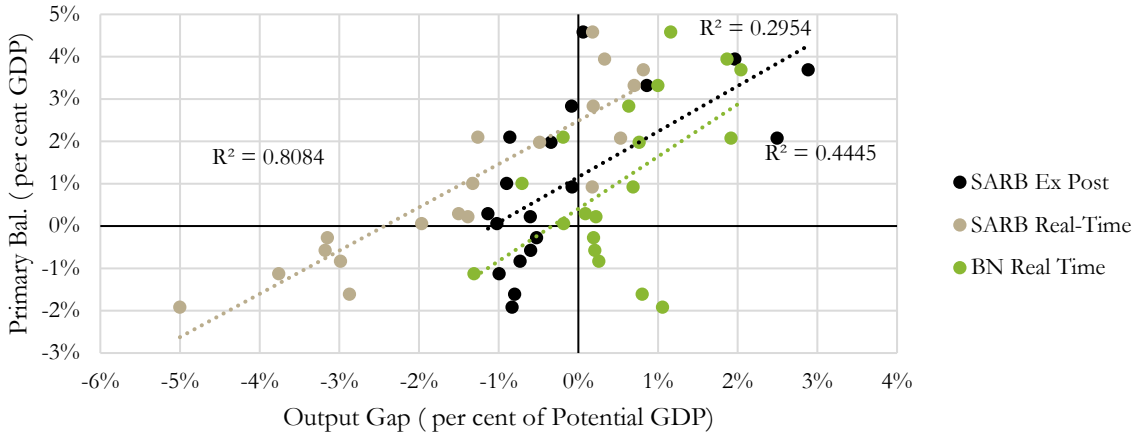
We also simulate a real-time Beveridge-Nelson (BN) filter on the seasonally adjusted quarterly GDP data by recalculating the trend and cycle component for each quarter with the information available during that quarter and prior periods.[17] Surprisingly, the simulated real-time estimate is much closer to SARB's ex-post estimate than SARB's real-time estimate and is generally less negative (or more positive), suggesting that it was not overwhelmingly clear that the economy was

[17] This exercise is not exact, however. The original vintage GDP datasets are not the same as the shortened versions of current timeseries due to data revisions.

a in cyclical slump in the aftermath of the GFC. Specifically, SARB's ex-post estimate continues to show an output gap of almost 1 per cent of potential GDP throughout much of the 2011–15 period, which contrasts with the real-time BN estimate (pictured in Figure 32) and a real-time Christiano Fitzgerald and Hodrick-Prescott filter (not pictured) which show positive or near-zero output gaps in the same period. This suggests that even ex post, SARB may be incorrectly measuring the historical slack in the economy. Consistent with this argument, Botha, Kuhn and Steenkamp (2020) also find that SARB's real-time output gap is deficient, as it is the 'worst-performing' indicator for predicting future output and inflation out of a set of candidates.

The variation in South Africa's fiscal balance is well explained by SARB's real-time output gap estimate, but much less well explained by SARB's and other ex-post estimates. This suggests post-GFC countercyclical fiscal support while understandable on the basis of the evidence at the time, was based on evidence that turned out not to be correct. Around 81 per cent of the movement in the general government's primary fiscal balance in 2001–19 can be explained by SARB's real-time output gap estimate, as published in Monetary Policy Committee reviews from the time (Figure 33). However, only 45 per cent and 23 per cent of the same variation can be explained by SARB's most recent (ex post) output gap estimate and the real-time estimate of the Beveridge-Nelson filter. This result is consistent with the fact that what at the time were believed to be a cyclical downturn later turned out to be shocks to trend growth. The idea that shocks can affect trend GDP growth, rather than the business cycle, was first presented in Aguiar and Gopinah (2007), which emphasized this phenomenon for emerging economies. More recent research, like Amra, Hanusch, and Jootse (2019), makes this case for South Africa specifically, arguing that the GFC and end of the commodity super-cycle affected potential growth, rather than the cycle.

Figure 33: Output gap estimates and general government primary balance



Source: authors' elaboration using SARB data.

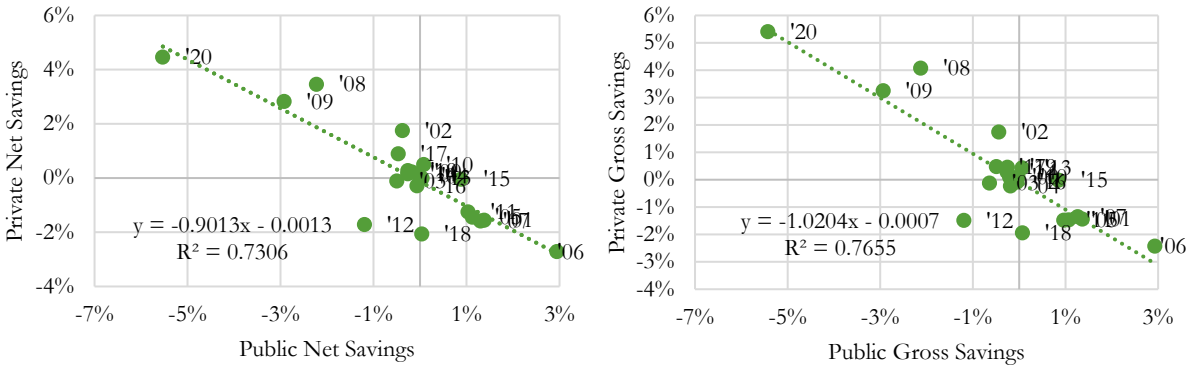
The increase in South Africa's expenditures that provided counter-cyclical support after the GFC were mostly permanent, not temporary. The composition of this adjustment was sub-optimal and contributed negatively to allocative efficiency. Budget expenditures for the main budget of the national government rose by 7.8 per cent of GDP between 2006–19 The lion´s share of this increase was the wage bill. For the general government and SOEs it rose by 3.5 per cent of GDP between 2007–19, largely due to rising real average wages. These wage increases are not transitory to the extent that public sector workers have permanent contracts and collective bargaining which makes lowering real wages via inflation unfeasible. This information suggests that the composition of the increased expenditure had too much current expenditure and too little capital expenditure, which had a lasting negative impact on the allocative efficiency of government spending. This view echoes Amra, Hanusch, and Jootse (2019), who argue that 'countercyclical fiscal policy through

discretionary increases to public spending, with the wage bill comprising the largest share of overall expenditure increases, resulted in South Africa's budget structurally increasing to a higher level of expenditure to GDP.'

Given real-time output gap estimates, monetary policy was cyclically appropriate during the GFC, the COVID-19 pandemic and the period in between. With ex-post estimates for 2011–15, this claim is harder to support. Alton (2018) finds that monetary policy in South Africa has been procyclical since 2000 based on outputs from a regression between the cyclical component of the real policy rate and the cyclical component of output (calculated ex-post with timeseries methods). This finding strongly supports the view that monetary policy was somewhat procyclical in 2011–14 or so, when the output gap was actually much smaller than believed.

There are various accounts of how macro policy may have slowed GDP growth. The first is that public deficits crowded out private activity via access to credit. The theory suggests that fiscal deficits affect household behaviour. The basic idea of Ricardian equivalence (also known as debt neutrality) dates to David Ricardo in the early nineteenth century. It holds that financing government expenditure through taxes or debt is equivalent because in the case of the latter, households expect higher future taxation to pay for the additional debt, reduce present consumption and increase savings as a result. This idea was first formalized by Barro (1974) in an overlapping generations model,[18] which concluded that financing current expenditures through debt or taxation has 'no effect on aggregate demand, interest rates, and capital formation,' although the assumptions underpinning the model soon faced pushback — see e.g. Buchanan (1976) and Feldstein (1976). The 1980s saw a vivid debate on the subject, and the two key surveys of the time (Bernheim (1987) and Seater (1993)) present opposing conclusions. A more recent survey by Ricciuti (2003) concludes that the empirical validity of the Ricardian hypothesis remains an open question, and research by Nickel and Vansteenkiste (2008) suggests that Ricardian behaviour is more likely to apply in countries with high levels of debt (80 per cent of GDP or more), which is increasingly the case in South Africa.

Figure 34: Changes in net and gross savings, public and private, change in percentage of GDP



Source: authors' calculations using SARB data.

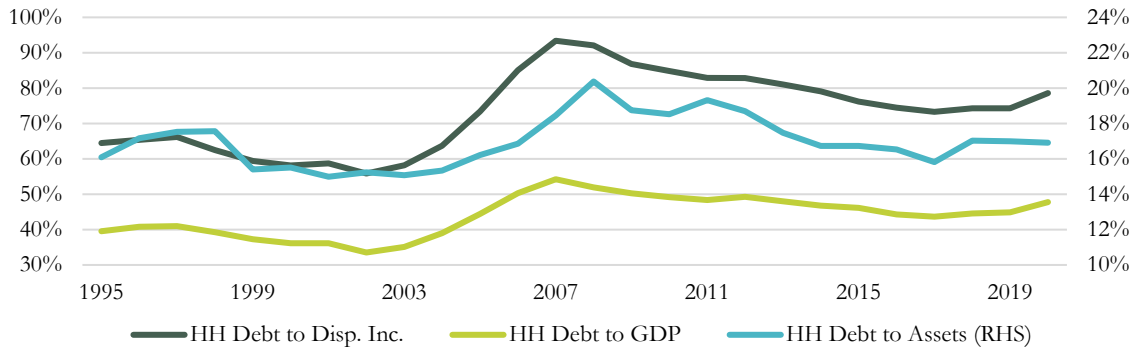
A first test of Ricardian effects: private and public savings move in opposite directions. A bivariate regression of changes in public savings against private savings in 2000–19 shows that they are inversely correlated with a slope of almost negative one, both for the case of gross and net savings

[18] The main assumptions for this model include rational expectations, strong intergenerational altruism, a fixed expenditure path, constant population, constant productivity, perfect capital markets (all agents lend and borrow at same rate), identical two-period agents, and constant preferences, among others.

(Figure 34). This offset coefficient indicates that in this period, reductions in public savings were almost fully offset by increases in private spending, which is consistent with a Ricardian effect. Beyond the question of why this effect occurs, it seems to be the case that some significant subset of the economy interprets public deficits as irresponsible or an augur of instability. This would dampen 'animal spirits,' lowering consumption and investment and yielding Ricardian behaviour all the same. Given the data and literature, it is fair to say that Ricardian behaviour is plausible, especially in the period between 2013–17, when household leverage was declining, a point to which we now turn.

Traces of the Ricardian effect can also be found in the market for household credit. Household leverage rose sharply before and during the GFC but then declined steadily until 2017, when it began to rise again. The decline in 2007–17 was significant. During those ten years, household debt fell 20 p.p. to 73 per cent as a share of disposable income, fell by 9 p.p. to 44 per cent as a share of GDP, and declined around 3 p.p. to 16 per cent as a share of assets (Figure 35). Since 2017, however, these indicators have rebounded by 5 p.p., 1 p.p. and 4 p.p., respectively, and remain slightly above the 1995-2005 average. As these trends unfolded, mortgage credit fell from around 70 per cent of all household debt to roughly 60 per cent, the difference being replaced by unsecured loans and instalment sale credit (car loans, etc.). We note however that the hypothesis of public deficits crowding out households spending is not supported by the data from 2017 onwards — when crowding out is most strongly emphasized in the policy debate — as households begin to re-leverage. Given this fact, it is easier to argue Ricardian effects in the 2013–17 period, but less so for 2018–19.

Figure 35: Measures of household leverage, percentage



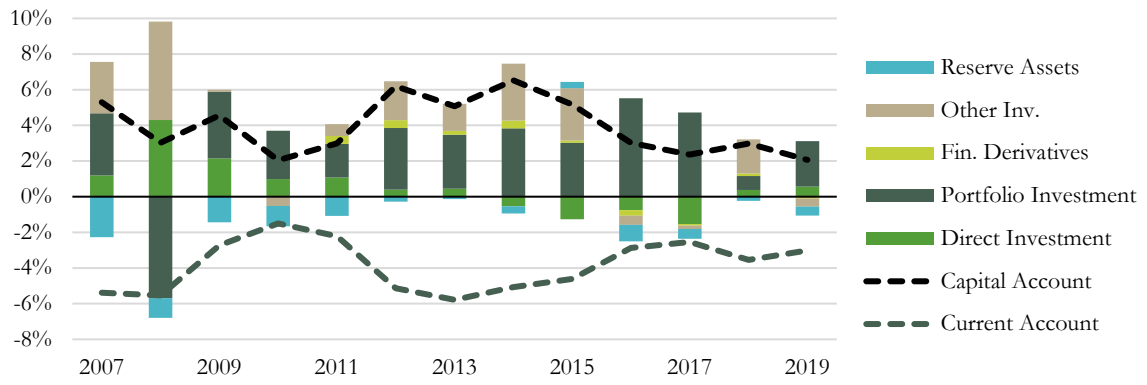
Source: authors' illustration using SARB data.

South Africa's current account deficit, which matches the public deficit, was largely financed with foreign portfolio inflows and other investments, undercutting crowding out effects. South Africa's external sector data suggest that government can finance itself abroad and is not directing savings away from firms or households. As Figure 36 illustrates, the country financed at least half of the external deficit every year from 2009 onwards with portfolio inflows from non-residents (except in 2016–17, where these flows financed over 100 per cent of the CA deficit). The other half of the external deficit was financed by other investments (mostly cross-border bank lending and repatriation of dividends by locals).[19] The fact that South Africa was able to attract foreign savings

[19] IMF Article IV 2019.

year after year suggests is not consistent with the narrative that the public sector diverted domestic savings away from productive investments and household consumption.

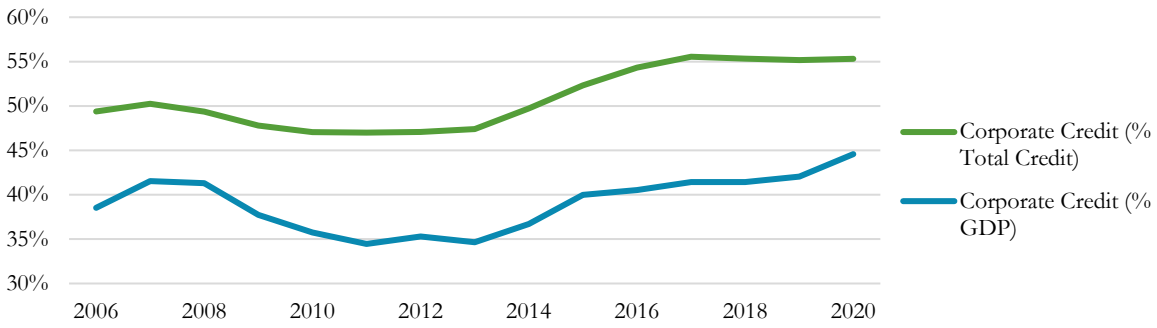
Figure 36: Capital account by components, percentage of GDP



Source: authors' illustration using SARB data.

The combination of increased private savings and external funds implied that the lending conditions of the corporate sector were not significantly affected. The phenomenon of crowding out is often associated with the fact that if the public sector is capturing most of the economy's savings and the private sector is competing for the remains, quantities of credit supplied to the private sector should be low or declining, the price of credit (real interest rates) should be high or rising, and public deficits should be the causal driver behind these two facts. However, the data for 2007–19 does not quite show this. Bank credit to GDP fell from 83 per cent in 2007 to 73 per cent in 2011 and has risen tepidly to 76 per cent by 2019. But the headline figure hides important compositional changes. Credit to corporates has been rising as a percentage of GDP, as a percentage of sectoral GVA, and as a percentage of bank assets since around 2013 (Figure 37).

Figure 37: Corporate credit in the economy, %

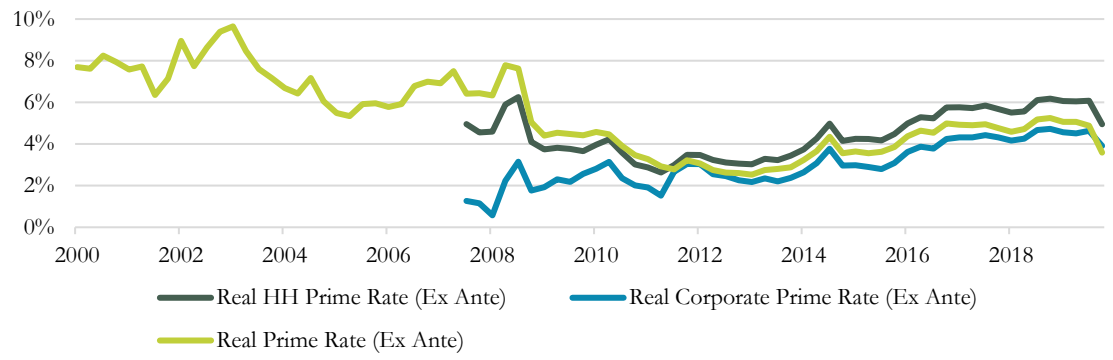


Source: authors' illustration using SARB data.

This has occurred as the banking system has broadly shifted credit exposure towards corporates from households. On the price side, real interest rates for corporates have risen in recent years but remain below pre-crisis levels. Average real borrowing rates deflated by expected inflation bottomed at 2.5 per cent in mid-2013 and surpassed 5 per cent in 2019 (Figure 38). The 250-bps increase in real borrowing rates is significant, but it did not bring real interest rates to levels seen in 2000–07, which were associated with higher economic growth and lower public deficits. Lastly, enterprise survey data from the World Bank from 2019–20 suggest that firms in South Africa consider access to credit to be a major obstacle to business much less frequently than peer

countries and the rest of the world. Thus, the data is not evidently consistent with a crowding out via credit access story for firms.

Figure 38: Real borrowing rates, %



Source: authors' calculations based on SARB data.

Part of the increase in real lending rates observed in 2013–18 can be explained by the implementation of Basel-III, as it raised bank funding costs independently of any changes in the supply of savings or demand for credit demand. Bank funding costs rose between 2013–19 partly as a result of the changes imposed by macroprudential regulation, which forced banks to switch into longer maturity, more expensive funding sources.[20] Since this change in funding costs and real lending rates happened independently of the credit or economic cycle, it explains part of the observed increase in rising real lending rates, which, as argued above, are a necessary condition for a crowding out via credit access theory to hold.

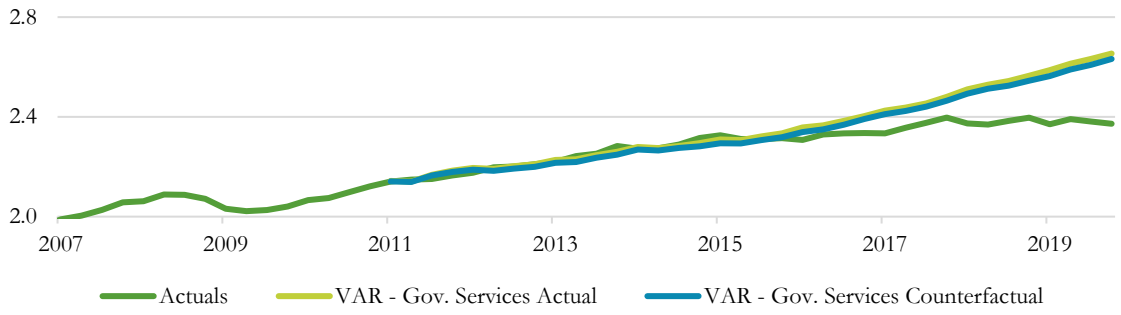
An alternative account of how fiscal policy slowed growth is that fiscal consolidation efforts from 2012 onwards were contractionary. We find the fiscal multipliers are small and negative indicating that the fiscal contraction if anything helped the economy to recover. Assessing this theory requires an appraisal of fiscal multipliers in South Africa, which can shed light on the links between fiscal policy and growth, and modelling to simulate the effects of additional spending. Using a closed input-output table model, Schröder and Storm (2020) estimate that fiscal multipliers in South Africa were 1.68 in 2018. However, this result is somewhat of an outlier. Kemp (2020) finds that expenditure multipliers are positive but generally less than one in the South African context and finds that they vary significantly depending on the model and identification strategy used. The same study finds that revenue multipliers are larger and more distortionary. Results for earlier periods in South Africa also suggest low multipliers. Jooste, Liu and Naraidoo (2013) estimate a time-varying multiplier that peaks at 0.6 after five quarters with no long-run impact on GDP. Akanbi (2013) estimates a fiscal multiplier below unity, even with output below potential, that declines to zero within three years. In an international context, the literature generally finds that multipliers are larger with well-developed financial systems (which South Africa has), and near the zero-lower bound (which South Africa has never been) and when government indebtedness is low (which is not the case).[21] The hypothesis of a low expenditure multipliers is consistent with the analytical exercise we present in Figure 39, which reports the results of a reduced form VAR model where we simulate counterfactual GDP for all sectors excluding government. We first forecast the model within sample since 2010. Notice how the model and actual figures start to diverge after 2016, indicating a growing pattern of slowing. We then allow for a counterfactual with additional

[20] Steenkamp (2021).

[21] Blanchard and Leigh (2014); Christiano, Eichenbaum, and Rebelo (2010); DeLong et al. (2012); Eggertsson (2011).

exogenous growth in the government sector (additional 0.2 p.p. in quarter-on-quarter growth rates through the entire 2011–19 period). The strong overlap of the VAR with and without the shock to government spending suggests that additional government spending would have had a minimal impact on output growth, consistent with a low multiplier, which, if at all, would have a negative value. In short, this exercises somewhat sides with the conclusion that fiscal multipliers, if anything are small.

Figure 39: GVA exc. gov. services – counterfactual shock, constant r billion, seasonally adjusted



Note: a VAR model was estimated for quarter-on-quarter growth rates of the economy's ten sectors for the 1990-2019 period. An in-sample forecast for 2011–19 period was estimated using additive residuals (with 200 repetitions). The first scenario 'Gov. Services Actual' assumed exogenous growth of the government services sector, using the latter's actual values in the VAR forecast. The second scenario 'Gov. Services Counterfactual' added an additional 0.2 p.p. to quarter-on-quarter actual growth rates in each quarter for the 2011–19 period, and estimated the VAR taking the gov. services path as exogenous.

Source: authors' elaboration based on SARB data.

Finally, the view that monetary tightening is responsible for the most recent growth slowdown is hard to defend, given the weak relation between inflation and growth. Recent South African economic literature has emphasized the lack of empirical evidence for a short or long-term association between rapid economic growth and higher inflation.[22] In terms of labour market outcomes, Kabundi et al. (2016) have shown a flattening of the Philips curve over time. The fact that inflation has been far from the lower bound of the official band and that credit growth stagnation did not coincide with the tightening cycle indicate that monetary tightening hardly played a major direct role in the current growth slowdown.

On balance, while South Africa's macro policy resulted in a large debt build-up, the arguments and evidence that macro policy slowed GDP growth are not compelling. First, because public dissaving generated a countervailing move in private savings, neutralizing its effect on aggregate demand. Second, because once government spending (with its financing combo) is simulated in the economy a fiscal expansion has a negligible effect on output. In short, more government spending, financed with taxes or debt, just engineered a switch from private to public consumption, as the economy reacted more in a Ricardian than in a Keynesian fashion. This may have had significant efficiency effects, but it is more difficult to argue, at least through 2019, that it had strong macroeconomic effects. In other words, neither can we support the claim that the crowding out effect was detrimental to growth, nor the claim that the attempts at fiscal consolidation were responsible for the growth decline. Although macro policy was indeed ineffective in reverting the slowdown, it did not itself cause it.

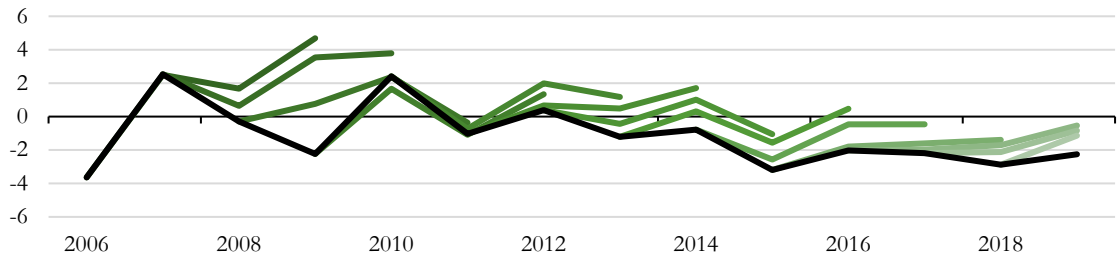
[22] Steenkamp (2019).

5.3 A micro narrative

A final account of South Africa's growth and fiscal trajectory emphasizes the persistent loss in productivity in the economy and the investment slowdown triggered by microeconomic policies. The two main 'microeconomic' accounts of the growth slowdown evaluated in this sub-section are (1) the sectoral roots of the productivity slowdown, and (2) the political factors behind the investment slowdown.

South Africa experienced an unexpected shock to productivity growth**.** As previously mentioned, public and private analysts had systematically expected higher growth paths for South Africa in the years after the GFC, which failed to materialize (Figure 18). In the micro narrative, this underperformance is explained not by the consequences of fiscal imbalances or by disappointing terms of trade but by an expected stagnation or loss in productivity. Figure 40 constructs a real time estimate of expected factor productivity (TFP) gains implied by the expected growth and investment path (as well as assuming realized changes in employment) as suggested in official estimates at each time. As can be seen TFP expectations did not materialize and were systematically overestimated during this period.

Figure 40: Budget framework, implied TFP growth



Note: TFP growth estimates for projected growth are calculated using a Cobb-Douglas production function, and assuming projected gross capital formation growth rates, depreciation rates and labour share of output rates from PWT, and actual changes in employment from SARB.

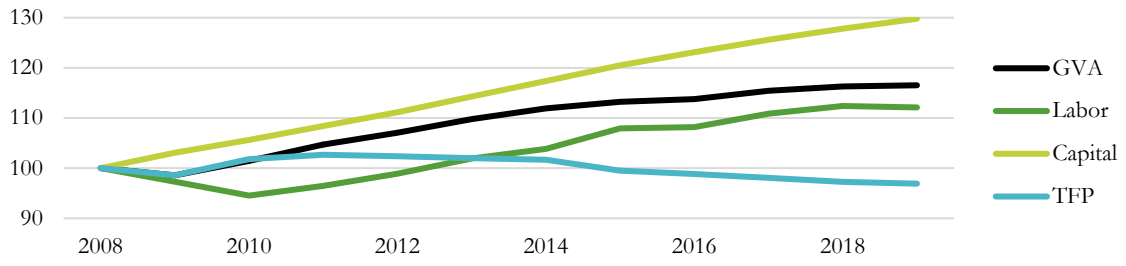
Source: authors' elaboraton based on National Treasury, SARB and Penn World Table data.

The loss in productivity is concentrated in network industries but is nevertheless common to the rest of the economy. When decomposing growth into the increase in labour, capital and total factor productivity (TFP), the latter explains the brunt of the under-performance, as employment and capital increased moderately. This result occurs regardless of the data used (Figure 41).[23] When comparing TFP estimates for South Africa and the United States, we can observe that whereas the capital stock per person has grown from 16 per cent of the US' to 19 per cent in the 2008–19 period, TFP decreased from 71 per cent to 54 per cent of the US'. The loss in productivity has not been uniform across the economy, as sectoral TFP estimates show a higher productivity loss in the utilities, mining, construction and transportation and ICT sectors (Figure 42). These sectors robustly increased their capital stock as well as the labour they employed, so stagnating or declining output calls attention to negative productivity growth. It is also notable that the productivity of the manufacturing sector increased over time, as a result of lower employment and disinvestment beyond changes in output. As it has been previously noted, industries higher productivity growth — such as finance, manufacturing — have seen their share of GVA decline over time, whereas

[23] Productivity estimates using constant elasticity of substitution (CES) production functions have been recently shown to be above Cobb-Douglas approximations, although trends over time are similar — see Steenkamp (2018).

decreasing productivity industries such as utilities and construction have increased their share of GVA.[24]

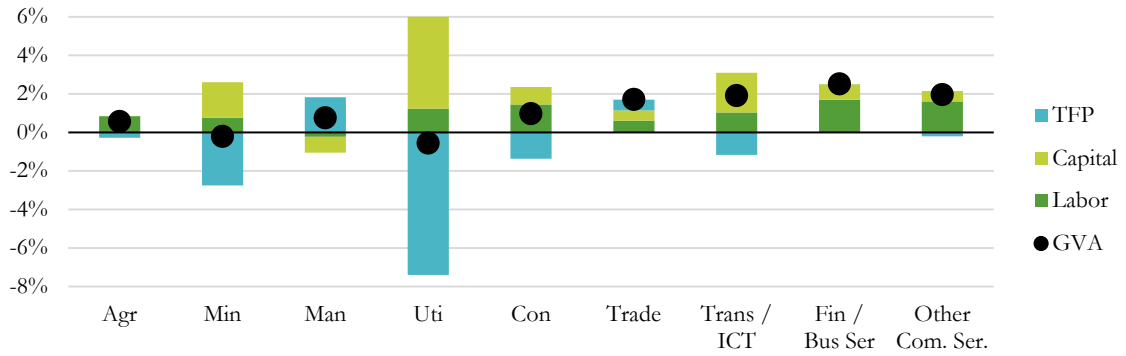
Figure 41. Gross value added decomposition (2008–19)



Note: the estimates assume a Cobb-Douglas function, and PWT's estimate of the labour share of output is used to provide TFP estimates. Index 2008 = 100.

Source: authors' calculations based on SARB, Statistics South Africa and PWT data.

Figure 42: Gross value added decomposition by sector (2010–18), contributions to compound annual growth rate in period



Note: the estimates assume a Cobb-Douglas function, and BEA's estimate of the labour share of output per sector in the US is used to provide TFP estimates.

Source: authors' calculations based on SARB, Statistics South Africa and US Bureau of Economic Analysis (BEA) data.

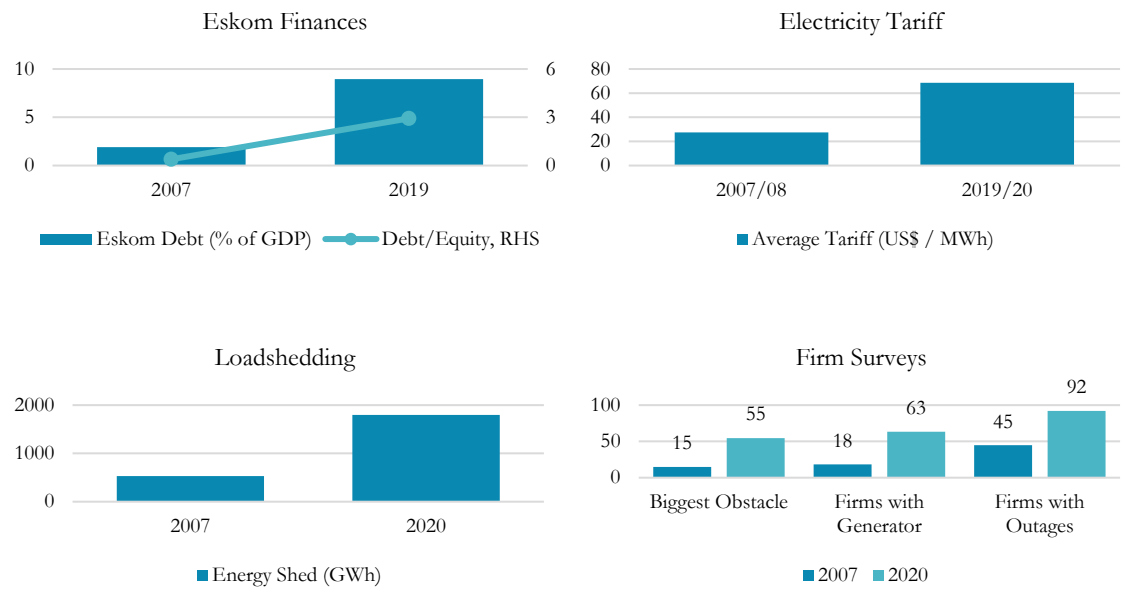
Inefficiencies at the state-owned enterprise level have often been considered at the heart of current economic stagnation, in particular in the electricity sector. As mentioned frequently in expert interviews, the last decade has seen a worsening of the performance of state-owned enterprises, which are key to the performance of network industries such as power and transportation. The case of Eskom visibly illustrates the underlying dynamics behind the productivity decline in network industries, although the case is not unique, and parallels to a great extent those of Transnet or South African Airways. The vertically integrated power utility produces around 95 per cent of electricity consumed in South Africa, and hence its performance is key to the productivity loss in the utilities sector. Over the last decade, parastatals have been hit by an 'operational, financial and governance' crisis as a result of initiatives to increase investment and procurement to support economic transformation.[25] Many factors including poorly designed and executed investment

[24] Pain, Rapapali, and Steenkamp (2020).

[25] Bowman (2020).

programs and misguided or corrupt procurement decisions have resulted in a substantial increase in Eskom debt, rising from 2 to 9 per cent of GDP in twelve years, and a fivefold increase in the company's debt-to-equity ratio (Figure 43). The increase in investment was not sufficient to boost the company's performance and increase electricity production, as coal powerplant megaprojects Medupi and Kusile were systematically delayed and have ultimately led to significant load shedding.[26] The rise in the company's costs also required a tripling of electricity tariffs in both dollar and constant Rand terms, further worsening conditions for consumers. Ultimately, large unproductive investments without adequate increases in output are behind what is observed as stagnating productivity in network industries.

Figure 43: Electricity sector statistics



Source: authors' elaboration based on Eskom, DoE, Calitz & Wright (2021), Enterprise Surveys data.

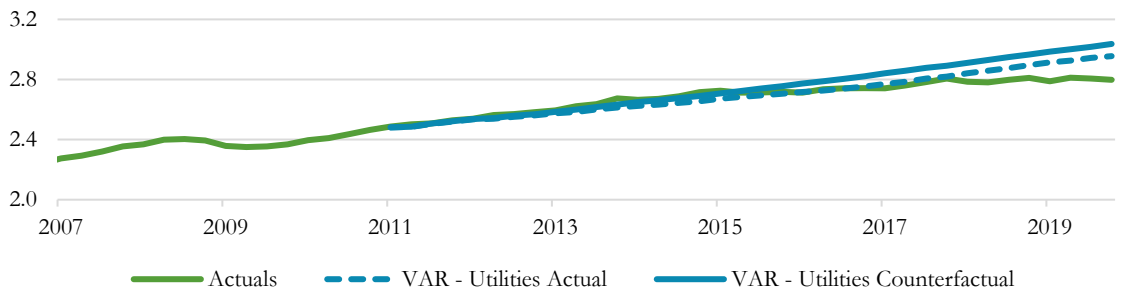
Productivity decline in network industries has percolated into the rest of the economy both through supply and demand channels. The power sector again illustrates how productivity decline in one part of the economy can hardly be isolated from the rest. The increase in load shedding has led to substantial outages for firms which has particularly hit electricity-intensive sectors such as mining (in particular gold and PGM) or metals and chemicals manufacturing. According to data from the Department of Energy, the electricity consumption of these sectors is currently close to or below their 2001 levels, a stagnation that can hardly be explained simply by improvements in electricity efficiency. Enterprise surveys not only show an increase from 45 to 92 per cent of firms suffering outages in the 2007–20 interval, but also an increase from 18 per cent to 63 per cent on firms relying on individual generators to provide themselves power, and an increase from 15 per cent to 55 per cent of firms finding electricity their largest obstacle.

To measure these effects, we estimate a VAR model based on the ten-sector decomposition of gross-value added provided by national accounts statistics. The drag of the utility sector alone explains 3 out of 8.5 points of the underperformance of the South African economy in this period. The model was estimated for the quarter-on-quarter (seasonally adjusted) growth rates 1990-2019 period, taking the utilities' sector performance as exogenous (of which four fifths are explained by

[26] Calitz and Wright (2021).

the power sector), and two in-sample forecasts using additive residuals were calculated for the 2011–19 period, the first one using utilities' actual performance, and a second one assuming an autoregressive AR(1) model for the evolution of the utility sector As Figure 44 shows, if utilities would have followed its historical trend, non-utilities GVA would have been 8.5 per cent above its actual value. Assuming the actual utilities' performance, the model would have expected a non-utilities GVA 5.6 per cent above its actual value by the last quarter of 2019. Thus about 3 p.p. out of 8.5 per cent underperformance in recent years is explained only from the productivity decline in utilities alone.

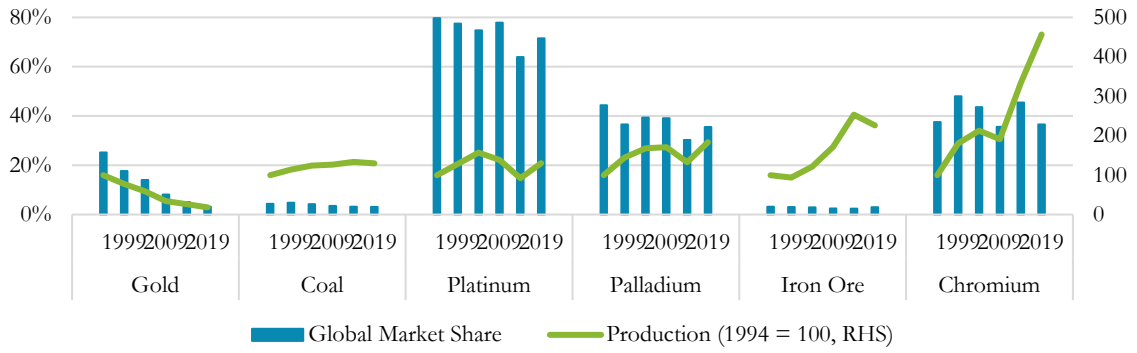
Figure 44: GVA exc. utilities – counterfactual shock, constant R billion, seasonally adjusted



Note: a VAR model was estimated for quarter-on-quarter growth rates of the economy's ten sectors for the 1990-2019 period. An in-sample forecast for 2011–19 period was estimated using additive residuals (with 200 repetitions). The first scenario 'Utilities Actual' assumes exogenous growth of the utilities' sector, using the latter's actual values in the VAR forecast for the other sectors. The second scenario 'Utilities Counterfactual' estimated utilities GVA growth for the 2011–19 period through an autoregressive AR (1) process and estimated the VAR for the other sectors taking utilities activity as exogenous.

Source: authors' elaboration based on SARB data.

Figure 45: Global market share of mining production



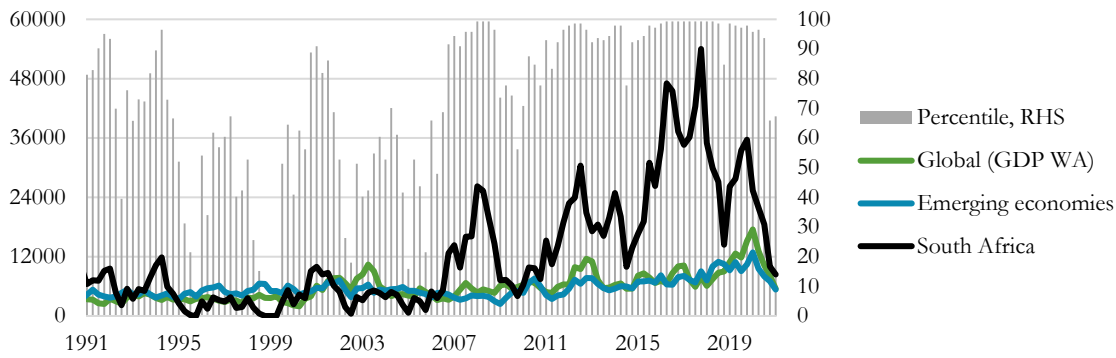
Source: authors' elaboration based on US Geological Survey.

Beyond the utilities sector performance, commodity prices are insufficient to explain some the recent dynamics of the mining sector. The beginning and end of the commodity supercycle is not the only explanator of the mining sector's evolution in the last decade, as domestic developments have also contributed to its performance. As Figure 25 showed, changes in the value of mining production and exports are largely attributable to changes in market prices. In terms of volumes, it is notable that with the exception of platinum group metals (PGMs), iron and chromium, terms of trade at its best did not allow South Africa to expand its mining production. Moreover, in the country's most traditional export, gold, South Africa saw its production further shrink and surpassed by other exports. With regards to coal, of which South Africa exports only a third of

production, if its notable that the economic expansion through the 2000s in the context of a coal-based electricity system did not lead to a major increase in fuel production. In the last decade, gold prices have continued to increase, yet production has declined further, and volumes have significantly expanded only for few minerals and metals. In terms of global share of South Africa's major mining products, we see its gold global share shrinking over time, as coal, iron ore, palladium, platinum and chromium stagnate, despite the increase in production of some minerals (Figure 45).

South Africa's mining sector has been particularly affected by falling productivity. Beyond declining or stagnating shares of production in key mining products, a significant loss in productivity that is observed in national accounts data has been accounted for in sectoral reviews in recent years. McKinsey's MineLens shows a 0.3 per cent yearly productivity decline between 2013 and 2017 in mining operations in base metals, iron ore and platinum, whereas other countries have grown more than 5 per cent in the period.[27] The same report also highlights cost-competitiveness and operational challenges partly driven by aging mines, infrastructure challenges (electricity supply) and organizational health. Another report by the Chamber of Mines (rebranded Minerals Council South Africa in 2018) locates South Africa gold industry in the fourth quartile of the global cost curve, and diamonds, PGM and iron ore in the third quartile.[28] In a decade characterized by lower commodity prices, falling productivity has additionally impacted the profitability in the sector and further discouraged investments.

Figure 46: World Uncertainty Index



Note: the World Uncertainty Index (WUI) constructs quarterly indices of uncertainty for 143 countries counting frequency of 'uncertainty' (and variants) in the quarterly Economist Intelligence Unit (EIU) country reports, which discuss political and economic developments in each country. The index is significantly associated with previous indices of Economic Policy Uncertainty, developed with a similar methodology but using domestic newspaper sources.

Source: World Uncertainty Index data.

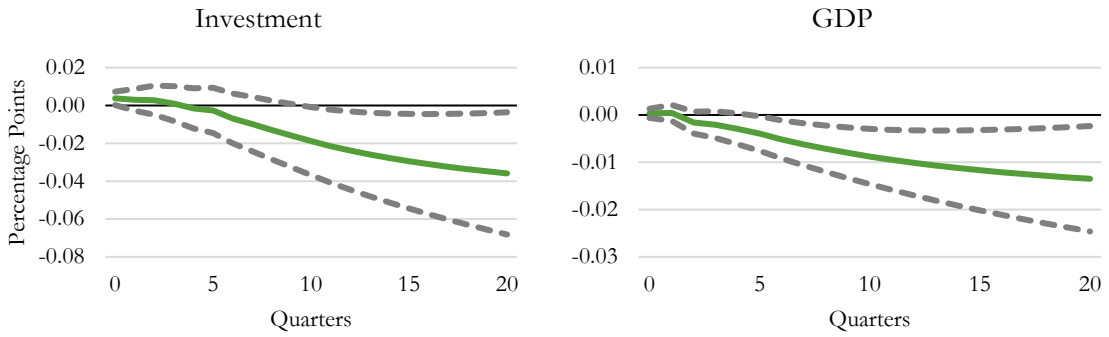
Increasing economic policy and regulatory uncertainty has also contributed to a dampening of investment. In addition to the productivity decline in network industries, below-average investment confidence and performance have been often associated to the increase in policy uncertainty prompted by a fall in the quality of governance through the 'state capture' period. An index of 'world uncertainty' (WUI), based on the Baker et al. (2016) methodology to estimate 'economic policy uncertainty' using the frequency of the word 'uncertainty' in Economist Intelligence Unit country reports, shows a steady increase in policy uncertainty over the last decade

[27] McKinsey & Company (2019).

[28] Chamber of Mines (2015).

(Figure 46).[29] South Africa has been in the 90th percentile or above of the index's 143 countries for most of the decade, with peaks during events such as the Mbeki-Zuma transition between 2008 and 2009, the incident at the Lonmin Marikana mine in August 2012, the dismissal of Finance Minister Nene in December 2015 and the events leading to the resignation of President Zuma in February 2018. Beyond high levels of measured policy uncertainty, a structural vector autoregression estimation shows a significant negative response of investment and GDP to shocks in uncertainty (Figure 47). Coherent with Ahir (2018), our estimation shows a statistically significant negative response of investment and output growth of a one-standard deviation increase in the uncertainty index, of up to cumulative 3.5 p.p. and 1.3 p.p. after five years. On average, South Africa had a 1.5 standard deviation average increase in the WUI from 2000–07 to 2010–19 and two standard deviations respect to 2015–19, which would in the latter case be equivalent to a cumulative decrease of 2.6 p.p. in GDP growth in the five-year period. This suggests a large role for policy uncertainty in shaping South Africa's investment and economic performance over the last decade.

Figure 47: Structural VAR, cumulative orthogonalized impulse-response function



Note: a structural VAR is fit for quarterly data from 2000–19. Impulse response functions of gross fixed capital formation and gross domestic product to a one-standard deviation increase in the uncertainty index are based on a Cholesky decomposition with order: uncertainty index, investment growth and GDP growth. 90% confidence intervals are displayed.

Source: authors' elaboration based on World Uncertainty Index and SARB data.

Beyond the increase in policy uncertainty and the productivity decline of the utilities and mining sector, there are other accounts of how micro factors could have impacted growth. The stakeholder interviews revealed significant concern over the low quality of municipal services, especially in large metropolitan areas, a fact well documented in Masiya, Davids and Mangai (2019). Access to electricity, more than water and sanitation, municipal roads, or other services, is often cited as a problem. Anecdotes of firms incurring large costs or relocating to overcome the constraints of inadequate municipal services are common, though we are not aware of research that quantifies this. In addition to the broader impacts of policy uncertainty, there is a more specific issue about property rights surrounding the Land Expropriation Bill and amendment of Section 25 of the constitution, which would jointly allow for expropriation without compensation in certain circumstances. Discussions in the legislature are ongoing, and expropriation without compensation is not yet possible, but predictably, some stakeholders have noted that the mere possibility has reduced investment appetite and dampened the investment climate, although this specific effect has not been precisely estimated.

[29] Baker, Bloom, and Davis (2016); Ahir, Bloom, and Furceri (2018).

In the micro account of fiscal policy, the unsustainability of fiscal outcomes is driven by fiscal policy not reacting accordingly to a 'low growth' environment. As previously discussed, forecast and execution errors have not been systematically off until 2016, when errors started to trend downward, mainly due to an overprediction in nominal revenues, partly due to SARS performance but predominantly related to growth's underperformance. Expenditure forecasts and execution have been overall on target in the last decade. Nevertheless, it is hard to think of the significant increase in national and general government expenditures as a share of GDP as a consistent part of a plan, in particular as macroeconomic policy had to implement an array of new budget mechanisms to contain primary spending. In our microeconomic narrative, the increase in expenditures can be thought off as an unintended consequence of slow realization by policy stakeholders of the new low economic and productivity growth environment. A key example in this regard are public sector remunerations, which continued to increase over nominal GDP even in periods of relative austerity after 2016. The gradual replacement of capital by current expenditures and the increasing frequency of bailouts to state-owned enterprises can also be understood as part of the deterioration of government spending productivity behind imbalances.

The micro story provides the most comprehensive account of the circumstances that led to the current growth challenge and a framework through which it is possible to evaluate the effectiveness of macroeconomic policy in the recent period. The external shock triggered by the end of the commodity cycle had a modest effect on South Africa's growth deceleration, as we have argued, it is not the most important explanator of the slowdown and fiscal deterioration. The macro story explains to a great extent the country's debt build-up, but neither crowding out nor austerity narratives provide a comprehensive account of current growth dynamics. The micro story does however not only single out some of the ultimate roots of the current productivity and investment slowdown, which account for the differential performance South Africa has had vis-à-vis other emerging market comparators, but also accounts for fiscal dynamics that may be hard to understand from solely a 'level of aggregate spending' perspective, such as the worsening productivity of public investment and publicly provided services.

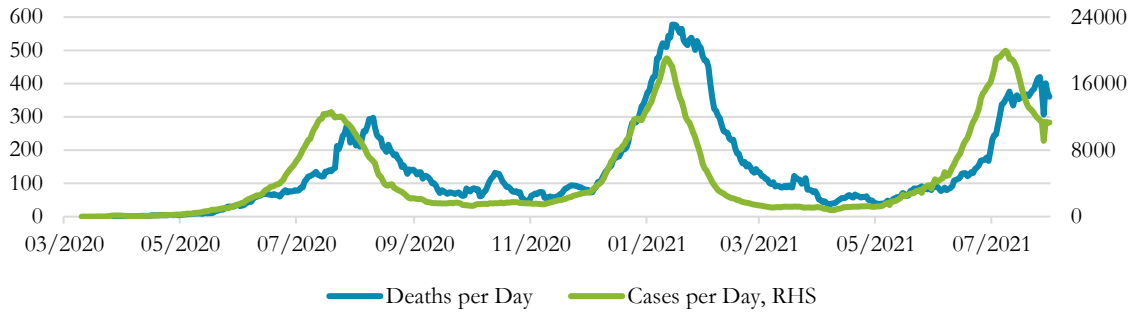
6 South Africa through the COVID-19 crisis

South Africa confronted the unprecedented COVID-19 crisis from a position of macroeconomic and fiscal weakness. The pandemic has significantly disrupted ordinary life across the globe, causing sharp contractions in economic activity in both advanced and emerging economies. Government policies to contain the spread of the virus (such as mandatory lockdowns) and behavioural changes by firms and individuals (such as voluntary closures or reductions in mobility) have triggered supply shocks in both emerging and advanced economies which have ultimately reduced aggregate supply and demand. South Africa confronted this unparalleled crisis from a position of macro-fiscal weakness. The singular economic, social and health challenges posed by the pandemic took place against this backdrop, shaping both the direct impact of the crisis and the margin for policy interventions.

The evolution of the COVID-19 pandemic in South Africa has both similarities and differences with the trajectory experienced by other emerging markets. South Africa 'flattened the curve' during March and April 2020 when the United States and Western Europe saw their first waves (Figure 48). Still, the virus resurfaced a few months later, leading to spikes in cases and deaths in July and August. Towards the end of 2020, the virus surged again and peaked in late January, but was brought under control by February 2021. By May 2021, a new wave of cases was arising, peaking in mid-July. Unlike many countries in Latin America or Europe yet similar to other countries in the region, South Africa has managed to avoid prolonged peaks in cases. However,

the country was one of the hardest hit by the pandemic in the region, with over 60,000 confirmed deaths by the start of July 2021, more than ten times the regional average weighted by population (although the potential widespread under-reporting of cases and deaths in many sub-Saharan African countries could attenuate this statement[30]). Moreover, estimates of 'excess deaths' relative to historical baselines suggest that COVID-19 deaths have been undercounted by at least a factor of two.[31]

Figure 48: COVID-19 cases and deaths per day, 7-day moving average



Source: authors' illustration using Our World in Data data.

South Africa relied heavily on non-pharmaceutical interventions (NPIs) to control the epidemic. These policies had significant economic effects. Like most countries, South Africa tightened and loosened NPI stringency throughout the crisis to deal with rising and falling COVID-19 caseloads. After the first confirmed cases, the government rapidly declared a national state of disaster and implemented containment measures including mandatory social distancing, school closures and international border screenings. An initial lockdown was enforced and then gradually relaxed after May, with schools and many economic activities resuming in June. Restrictions were again tightened and relax following caseload peaks. These changes in policies are illustrated by the Oxford COVID-19 Government Response Tracker (OxCGRT)'s Stringency Index (Figure 49), which shows NPI stringency gradually dropping after April, then experiencing a sharp reduction in September, and new increases in January and June 2021. The figure also shows a peak in the reduction of workplace mobility in April, at the height of the restrictions, then a gradual increase in mobility followed by new peaks coinciding with NPI measures. As in other countries, lockdowns were initially effective in postponing the impact of the pandemic, but potentially at a large economic cost.

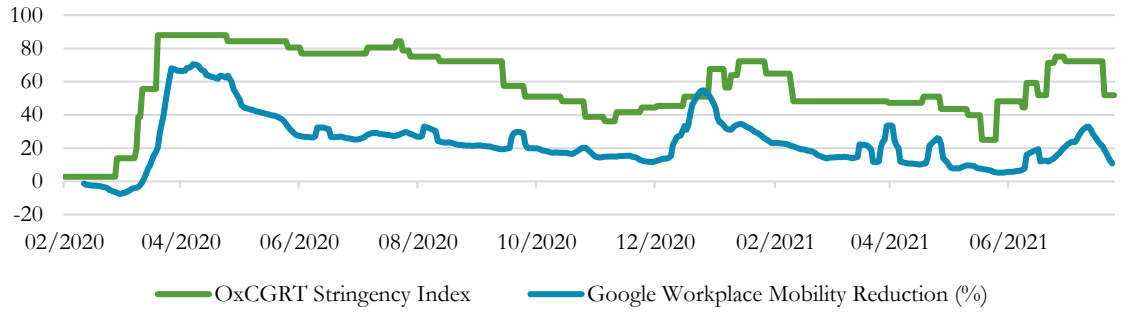
The COVID-19 shock has been unique in how it has affected the South African and global economy through unconventional channels. The COVID-19 economic crisis South Africa's GDP to plunge by 7 per cent in, 8 percentage points below the pre-crisis IMF projection for the year. South Africa's 7 per cent GDP downturn has been not only larger than EM average -2 per cent, but also Australia (-2 per cent), Canada (-5 per cent) and Chile (-6 per cent). Aside from the magnitude, relative to previous global crises, the COVID-19 shock has been atypical in terms of how distinct its effect has been on different sectors of the economy, given that not every economic activity has been equally affected by lockdowns, mobility restrictions, or the decline in global trade and travel. In South Africa, the sectors that have been the most affected by the crisis have been construction, transport, manufacturing, mining, trade and accommodations (Figure 50). The country's agricultural sector experienced in the same year strong growth, but only moderately

[30] Mbow et al. (2020).

[31] *The Economist* (2021).

compensating the downturn in the rest of the economy. On the expenditure side, GDP's 7 per cent downturn has implied a strong composition change: whereas real household consumption fell by 5.4 per cent, investment and exports decreased by 17.5 per cent and 10.3 per cent respectively. In the same time period, government consumption increased 0.5 per cent in real terms. A strong contraction in goods and services imports — motivated not only by the interruption in global trade flows but also by a large real exchange rate depreciation — resulted in an uncommon trade surplus of 5 per cent of GDP and the first current account surplus since 2002.

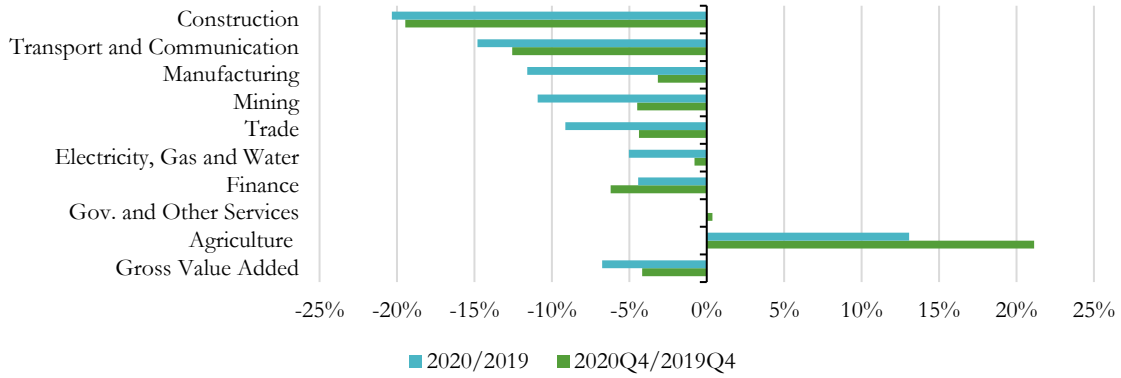
Figure 49: COVID-19 OxCGRT Stringency Index and Google Workplace Mobility Index



Note: workplace mobility is measured as a percentage deviation from pre-pandemic baseline.

Source: Our World in Data data.

Figure 50: Gross value added, by economic activity, percentage change

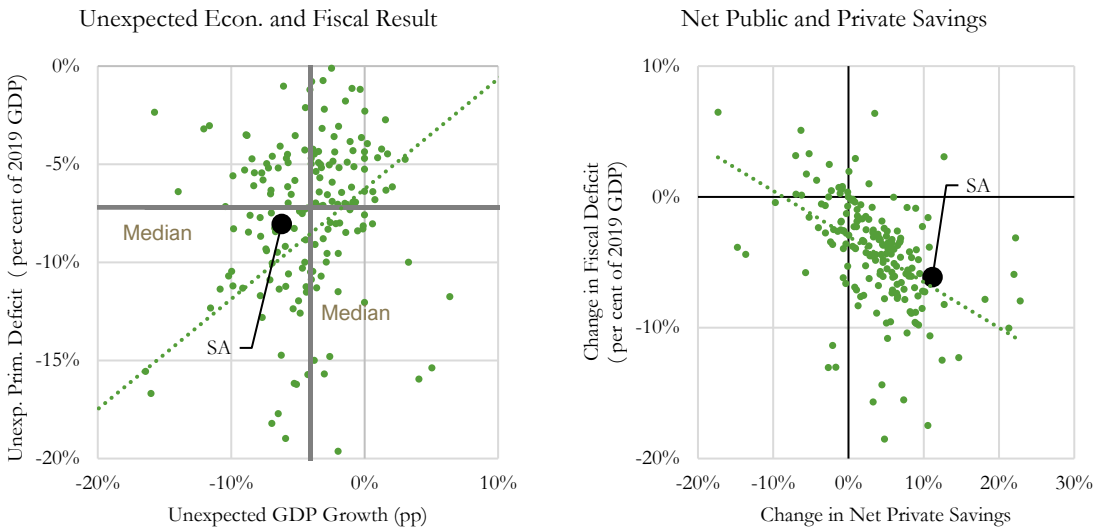


Source: authors' illustration using SARB data.

The Government of South Africa implemented fiscal and monetary measures to balance the economic and social effects of the crisis. The COVID-19 shock has led to a significant widening of fiscal deficits in both advanced and emerging markets. Beyond the contraction of tax revenues due to the recession, the increase in deficits and debt is largely explained both by policy initiatives to provide tax credits or deferrals, as well as the expansion of expenditures in health services, and in economic and social relief. In South Africa's case, according to the IMF, above-the-line measures amounting up to 5.9 per cent of 2020 GDP (of which 0.8 per cent of GDP directed towards the health sector) were announced to tackle the effects of the crisis, whereas 4.1 per cent of GDP was allocated towards below-the-line measures, mainly a guarantee programme for firms in distress. Above-the-line measures included additional spending and tax exemptions for health equipment, an expansion and extension of unemployment insurance, a significant increase in grants and other social programs, as well as tax subsidies for employees and an acceleration of tax credits and deferral of some liabilities. The most significant below-the-line policy announced was

a R200 billion loan guarantee programme, implemented since May 2020. As discussed in the interviews section, there are disagreements on the appropriateness of the implementation of the fiscal response, in particular regarding the loan guarantee programme. Bank Association South Africa has reported less than 10 per cent implementation of the loan guarantee scheme by June 2021, with only a small share of formal businesses applying.[32] On the monetary policy front, SARB has progressively cut the repo rate to tackle the effects of the crisis: from 6.25 per cent down to 5.25 per cent in March 2020, 4.25 per cent in April, 3.75 per cent in May and stable at 3.5 per cent since July, amounting to 275 basis points. Since March, SARB has also implemented additional measures to increase liquidity, both in terms of monetary policy operations (such as increase the number of repo auctions per day from one to two from March to May 2020) and macro-prudential regulations (bank capital requirements and liquidity coverage, the latter normalized since August). As Figure 51 illustrates, the unexpected (vis-à-vis pre-crisis projections) increase in the country's primary deficit was above the global median, and the EM average. Nonetheless, it is unclear to what extent fiscal policy was successful in avoiding the current recession. The combination of poor economic performance and fiscal expansion puts South Africa amongst the countries that have seen the largest change in their current account composition, with net private savings (calculated as the difference between the current account and the fiscal deficit) rising 11 p.p. — more than almost any other country — and only partly compensated by public dissaving.

Figure 51: IMF World Economic Outlook, cross-country projections



Note: 'unexpected' performance is calculated as the difference between 04/2021 and 10/2019 projections for 2020.

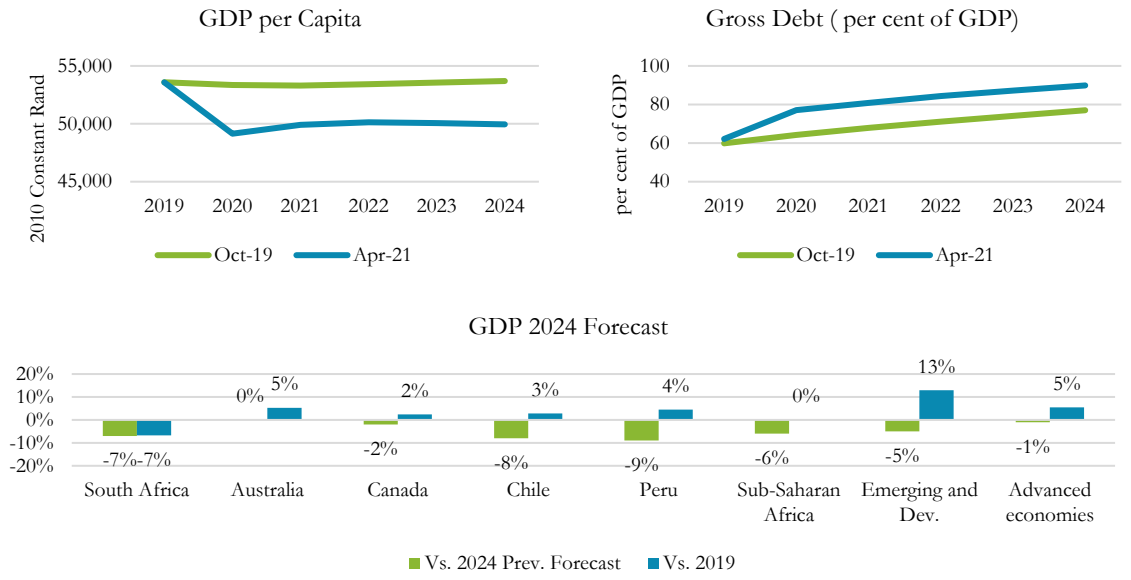
Source: IMF data.

The end of the COVID-19 will find South Africa with a more vulnerable economy and an increasingly urgent social crisis. By the time South Africa is able to leave COVID-19 behind, the country will continue to face urgent economic and social challenges. As the latest IMF WEO shows, COVID-19 has left South Africa poorer and with an even more vulnerable fiscal stance than was expected before the pandemic. GDP per capita is not expected to recover its pre-crisis levels in the next four years, nor is debt expected to regain its pre-COVID path, as illustrated by Figure 52. South Africa's GDP by 2024 is projected to be 7 per cent below 2019 and 7 per cent below its pre-crisis forecast for the year, compared with 13 per cent above 2019 and 5 per cent

[32] Makgetla (2021).

below pre-crisis forecasts for EMs, and 5 per cent and -1 per cent for advanced economies. A slow recovery in 2021 and sluggish pre-crisis trends are likely to be behind this daunting scenario. Recovering growth, reducing unemployment and regaining fiscal sustainability will be only some of the many challenges of macroeconomic policy in the next years.

Figure 52: IMF World Economic Outlook, South Africa projections



Note: April 2021 forecasts are compared to October 2019 forecasts.

Source: IMF data.

7 The next decade in macroeconomic policy-making

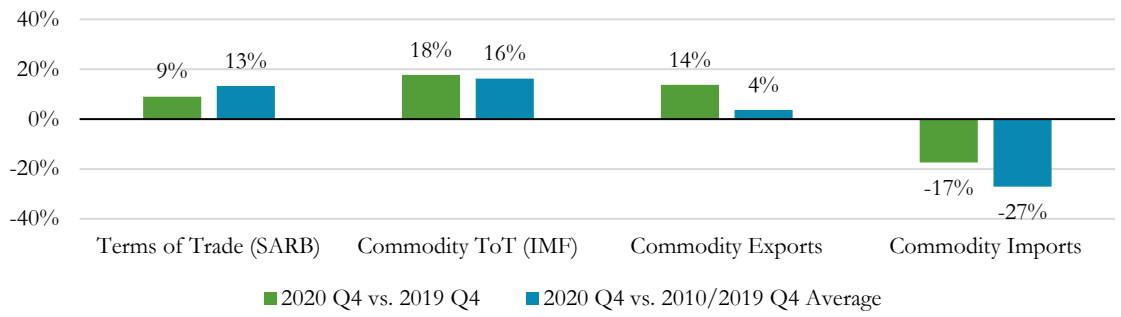
There is little disagreement that the main objectives of macroeconomic policy in the next decade need to be creating the conditions for reigniting growth and leading the economy to a sustainable debt path. As the analysis showed and the interviews highlighted, South Africa endured through the 2010s a growth deceleration and a deterioration of fiscal balances. While as the end of 2019 our assessment was one of microeconomic woes, with a deteriorating but not dramatic macro picture, the COVID-19 crisis has, however increased macroeconomic vulnerabilities significantly. Thus, while microeconomic reforms remain a priority, recovering macro sustainability has also become a key policy concern going forward.

Economic policy needs to directly tackle the microeconomic roots of the growth slowdown and fiscal challenge. As our analysis argued, a major driver of South Africa's growth deceleration and productivity decline has been the presence of major challenges in network industries — such as the poor performance of the utilities sector — as well as to high levels of economic policy uncertainty. Implementing reforms in key network industries such as the power sector — but also transport and ICT — will be key to put South Africa in a path towards productivity recovery. According to our estimates, reversing the stagnation in the utilities industry and providing a less unstable environment could be sufficient to turn around the situation. Operation Vulindela, launched in October 2020, is currently an effort driven by Presidency and National Treasury to advance a turnaround of many network industries, implicitly recognizing the need for a proactive approach towards the effective implementation of structural reforms that has often been delayed.

The modernization implied by a reform agenda of this type can not only in principle contribute in putting South Africa on a more sustainable growth path by tackling the production bottleneck, in most cases without requiring additional fiscal stimulus, but also by reducing policy uncertainty through decisive action. As interviews reveal, there is more than often agreement on which areas of policy are the ones that require most immediate attention, and where reform energies should be focused, but the practical challenges lie on implementation and sometimes loss sharing related to reform.

Microeconomic reforms are not only potentially growth enhancing, but they are also inclusive. Beyond their role in reigniting economic activity, and reducing fiscal woes, microeconomic reforms in sectors such as power, transportation or telecommunications can also play an inclusive role in boosting access to basic services for the population. A significant share of society is currently being excluded from access to services and technologies that could not only improve their livelihoods but allow them to better participate in the more productive parts of the economy. Power sector reforms, as an example, can lead to lower costs and better output reliability, whereas reforms in transportation sector, such as open access to freight rail, could crowd in new private investment in key sectors at no fiscal cost. In the case of some state-owned enterprises such as South African Airways, which cater to citizens of the highest income levels, enforcing harder budget constraints is not only justified in terms of efficiency but also in terms of equity. This report has tried to provide some quantification of the costs that the South African society has paid in terms of growth not materialized for not implementing these reforms. There is no compelling social interest in not implementing these reforms, as, to our best understanding, the interests that could oppose them or prevent them are narrow and concentrated.

Figure 53. South Africa terms of trade, percentage change



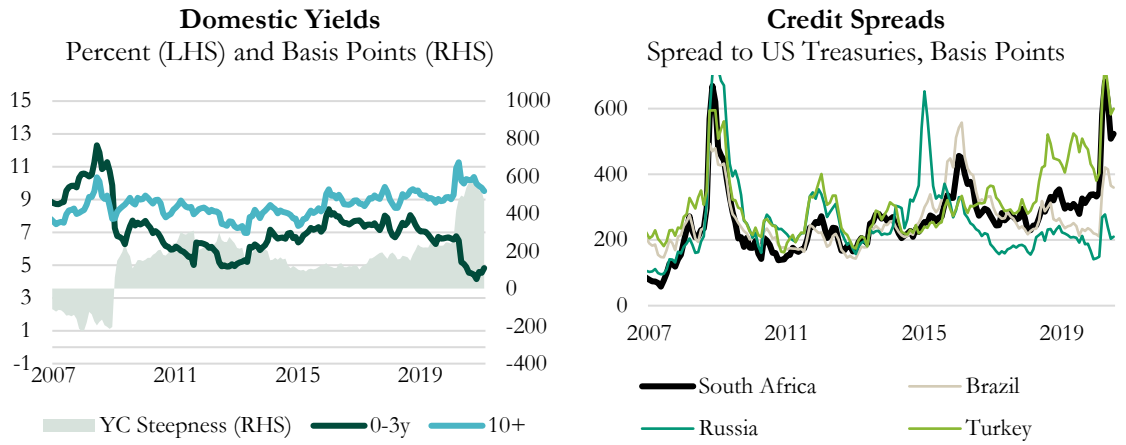
Source: SARB, IMF data.

The current terms of trade hike can temporarily ease economic and fiscal conditions for South Africa but will unlikely result in permanent fixes. South Africa and other emerging markets have been experiencing since the end of 2020 a surge in some commodity prices that has resulted in a significant improvement in terms of trade. As Figure 53 shows, an improvement in commodity export prices and low oil prices have resulted in an improvement in both commodity and overall terms of trade. These movements as well as the recovery of the economy have contributed to a real recovery of the Rand back to 2019 values. Given COVID-19's impact on economic performance in 2020 as well as changing trends in terms of trade, one can expect both strong economic performance in 2021. Nevertheless, as our analysis has shown, low terms of trade were not the culprit for past growth and fiscal performance and are unlikely to give what they did not take. High commodity prices will definitely provide some air to the government in a moment where economic recovery and fiscal space are both needed, but beyond the fact that it is uncertain how long the recent period of favourable terms of trade will last — particularly if a global inflation surge is on the horizon — the economy will not enter neither a sustainable growth fiscal path

without the needed policy reforms. Terms of trade could provide a distraction from needed change in growth and fiscal path and the effects of these should not be exaggerated.

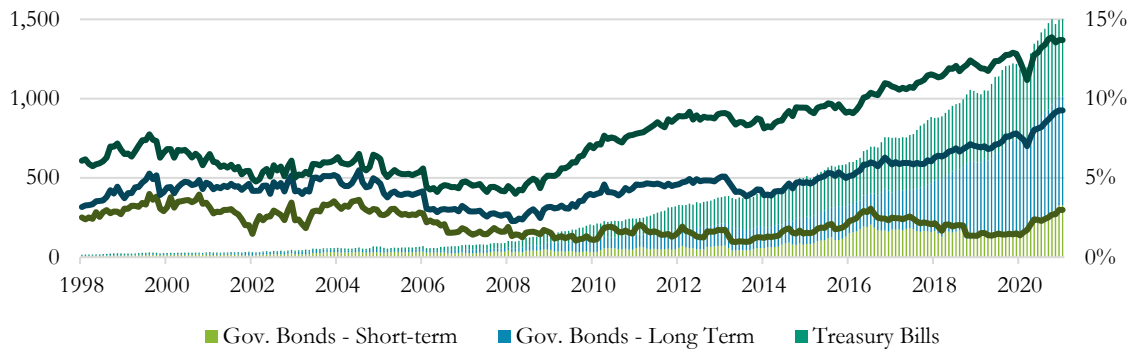
After the deficit spikes of 2019 and 2020 fiscal policy cannot continue on this path indefinitely. South Africa's fiscal position has deteriorated throughout the last decade and more so with COVID. Since 2016, South Africa's local currency yield curve has steepened, posing an increasingly relevant trade-off between the cost of public debt and the rollover risk associated with its maturity. The spread between 0-3 year instruments and 10+ year instruments was just over 100bps in 2015 but widened progressively to 250bps in December 2019 and over 500bps during the pandemic (Figure 54). In parallel, credit spreads for SA's foreign currency denominated debt rose from around 200bps in 2014 to 330bps in late 2019 and spiked over 600bps at the start of the outbreak. These indicators reflect the growing pressure of interest payments on the national budget, which went from being around 7 per cent of the NFPS revenue shortly after the GFC to 12 per cent of revenues in 2019. More deeply, they reflect uncertainties associated to South Africa's macro-fiscal trajectory and whether the political economy can support a credible adjustment path.

Figure 54: Local currency yield curve and credit spreads for US$ denominated debt



Source: SARB, S&P Capital IQ Estimates data.

Figure 55. Bank holdings of national government securities, constant 2010 billion (LHS) and percentage of bank assets (RHS)



Source: authors' illustration using SARB data.

Despite the evidence of a Ricardian effect moderating the impact of fiscal deficits on private investment, that could change in coming years if public deficits remain large. The FY 2020/21 fiscal balance was 14 per cent of GDP and is not expected to narrow to pre-pandemic levels for

some time. In this context, South African banks are opting to increase exposure to government debt, which has reached 14 per cent by the end of 2021 (Figure 55). This has also coincided with a rise of liquid-coverage ratios up to 150 per cent in late 2020, which has been suggested as potential evidence of crowding out.[33] We do not believe this recent phenomenon implies crowding out at this time, as banks have excess liquidity and are likely not lending to the private sector due to reduced credit demand and investment appetite and an increase in credit risk due to the recession. However, if investment appetite and the economy pick up while the government continues to run large deficits, this could change, dampening the recovery. In addition, as the debt to GDP ratio continues to rise in the coming years rising local interest rates may not take time to play out. Furthermore, portfolio flows from the private bank and non-bank sector, which largely finance South Africa's current account deficit, have recently reversed, with an average outflow of 2 per cent of GDP between 3Q2019 and 4Q2020. If South Africa's credit worthiness deteriorates and this trend continues, pressures on domestic savings could rise, leading to crowding out.

Primary fiscal surpluses of around 2 per cent of GDP are required to stabilize the debt, implying an adjustment is needed. The stability condition for South Africa's debt to GDP ratio is given by $\frac{pb_t}{Y_t} = \frac{D_t}{Y_t}\left(\frac{r_t - g_t}{1+g_t}\right)$, which indicates that the primary balance that stabilizes the debt to GDP ratio across periods is proportional to the debt to GDP ratio and proportional to the difference between the average interest rate and the growth rate of nominal GDP.[34] At present, the average nominal interest rate on the national government's nominal debt has fallen to approximately 6 per cent, much lower than the 9-10 per cent average in the early-mid 2000s. In 2018 and 2019, South Africa's nominal output grew by just 4.7 per cent and 4.2 per cent respectively.[35] This means that in 2018 and 2019, South Africa would have needed primary balances of 1.0 per cent on average to stabilize the debt ratio. If real GDP growth stabilizes at 1 per cent, inflation remains at anchors at 3 per cent, and the nominal cost of debt remains at current levels, South Africa would need primary surpluses of around 2 per cent of GDP to stabilize the debt. If, on the other hand, growth accelerates to 2 per cent holding everything else constant, South Africa would need a primary balance of around 1 per cent of GDP to stabilize the debt. At a growth rate of 3 per cent, South Africa would need a primary balance of approximately zero. Thus, the level of surplus required to stabilize the debt strongly depends on the growth rate of the economy. While 2 per cent may sound feasible, it is very far from South Africa's current stance, which increases the need for the country to undertake a fiscal consolidation to return to a sustainable path from its current primary deficit. Moreover, these scenarios assume no further appearance of contingent liabilities related to state-owned enterprises, which, as mentioned previously, have been recurrent in the debt accumulation process over the last decade.

Moreover, South Africa's 'r - g' dynamics could worsen through rising cost of debt. After a decline in inflation in the depth of the COVID-19 crisis, global inflation has rebounded above its pre-crisis levels, led by a recovery of global demand and oil prices.[36] Although inflationary concerns

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[33] Mnguni, Rapapali, and Simbanegav (2020).

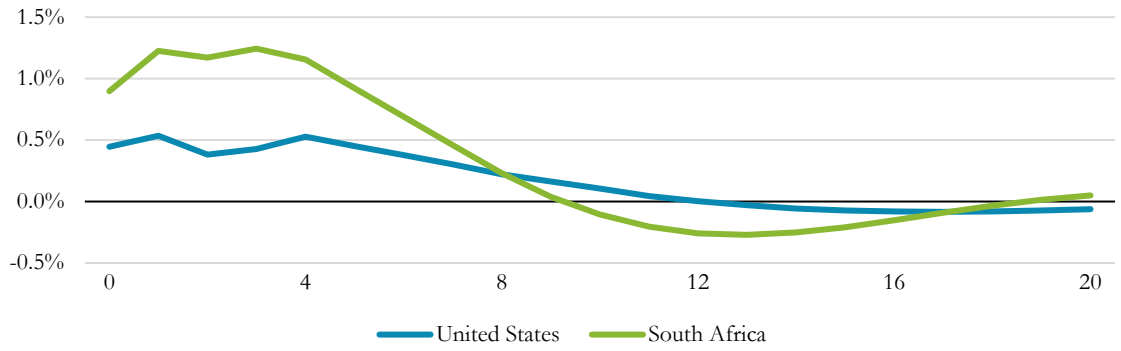
[34] A basic formal framework can shed light on South Africa's debt dynamics. First, we state the equation of motion for the nominal public debt, $D_t = D_{t-1}(1 + r_t) - pb_t$ where D is the debt, r is the average interest rate on public debt, pb is the primary balance, and t indicates the period. Dividing both sides by GDP, we get the equation of motion for the debt to GDP ratio: $\frac{D_t}{Y_t} = \frac{D_{t-1}}{Y_{t-1}}\left(\frac{1+r_t}{1+g_t}\right) - \frac{pb_t}{Y_t}$ where Y is output, g is the growth rate of nominal output, and $Y_t = Y_{t-1}(1 + g_t)$. Lastly, to derive a stability condition for the debt to GDP ratio, we may impose the condition that it remains constant between periods. This results in the expression that follows the footnote.

[35] This is calculated by dividing public interest expenditure by the debt stock.

[36] World Bank (2021).

may be temporary, these could affect perceptions of investor risk and make it harder for countries to rely on low cost of debt. By the first quarter of 2021, inflation expectations in South Africa remained still below 4 per cent, the lowest since 2005, and hence a nominal interest rate hike is unlikely in the short-term. Nevertheless, if global inflationary pressures persist and economic activity recovers, a rate hike could naturally follow. A rise in nominal interest rates could lead to a short-term increase in the real interest that could further complicate the country's 'r-g' dynamics. In Figure 56, we quantify these risks for both the US and South Africa through a structural VAR estimation with long-term restrictions set to capture the independence in the long run of the real interest rate from monetary policy (i.e. the Fisher hypothesis). The figure shows that a hike in the nominal interest rate both in South Africa and the United States is associated with a short-term increase in the real interest rate. The likelihood of an increase in real rates due to monetary tightening in the short-term could further complicate the ability to fund the country's deficit through the adjustment period. In other words, the road to debt dilution through inflation could probably backfire.

Figure 56: Response of Real Interest Rate to Change in Nominal Rate



Note: the graph exhibits impulse response functions corresponding to the response of real interest rates to one standard-deviation changes in nominal interest rate, as estimated in a structural VAR model. The structural VAR introduces a long-run restriction to changes in the real interest rate variable following Blanchard and Quah (1989) methodology. The model is estimated in differences with six lags of the independent variable.

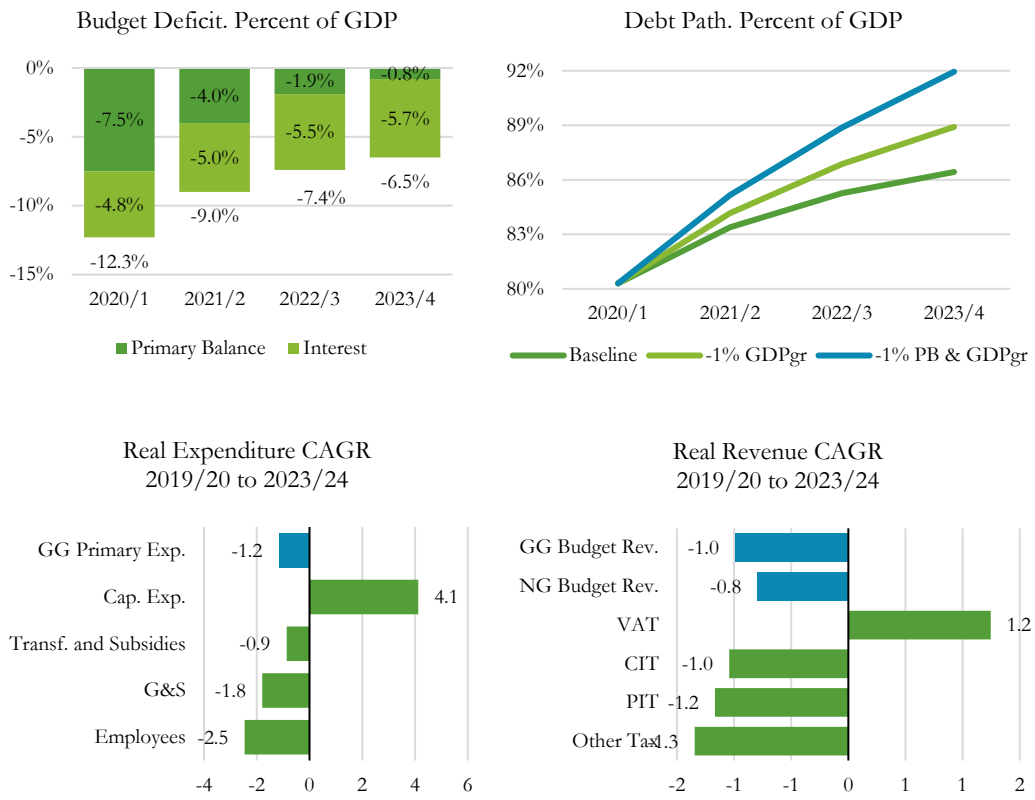
Source: authors' elaboration based on Federal Reserve Bank of St Louis data.

Given the difference in fiscal multipliers between revenue and expenditure and the limited efficiency of public spending, an adjustment on the expenditure side is likely preferable, though there are distributional impacts to consider. South Africa has limited space to increase tax revenues, which are already high in comparison to countries of similar income per capita, so expenditure cuts will likely have to represent a large share of the adjustment. This view is reinforced by the difference between revenue and expenditure fiscal multipliers, though the adjustment will need to be tailored with distributional impacts in mind, to reduce the impact on inequality and avoid making expenditure adjustments regressive. The results on South Africa's fiscal multipliers is consistent with an ample literature on fiscal adjustments. This literature tends to agree that adjustments implemented through tax hikes are typically more recessionary than adjustments done through expenditure cuts.

Improving the productivity of South Africa's public sector is a difficult but necessary change. Beyond the need to control the public wage bill as well as contingent liabilities from state-owned enterprises, South Africa needs to increase the productivity of public expenditures and the quality of spending. Over the last ten years, the country has seen both an increase in general government expenditures in local services, and an apparent reduction in their quality, which needs to be

addressed. Parallelly to the case of network industries, here the challenges lie the most on the implementation of reforms, in particular as the provision of a large share of public services is decentralized to provincial and local governments, and hence a turnaround will probably require a change in how public-public coordination takes place in the country. Initiatives to boost and modernize state capacity at the subnational level (provinces and municipalities) and incentive structures to better manage the relation between the national government and implementing entities and agencies — such as fiscal rules or pay-for-performance mechanisms — should be considered for this purpose.

Figure 57: Budget review 2021



Note: debt path is simulated using Budget Review assumptions on primary balance, growth, inflation, and interest payments.

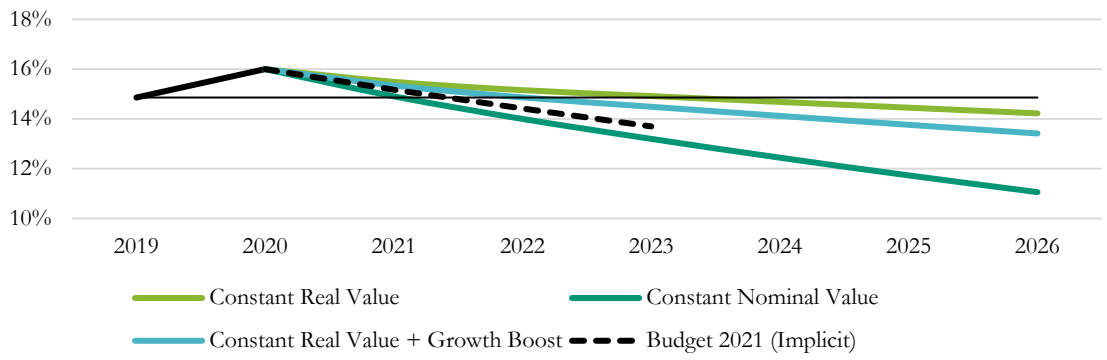
Source: National Treasury data.

The National Treasury's 2021 Budget Review takes significant steps in the right direction. The macro-fiscal projections presented by the authorities outline a relatively large reduction in the primary fiscal deficit from -4.0 per cent of GDP in 2021/22 to -0.8 per cent in 2023/24 (Figure 57). Even under this fiscal path, the debt is set to continue rising until 2025/26, where it is projected to stabilize at 89.9 per cent of GDP. This poses a challenge to policy makers, as South Africa's commitment to adjustment and sustainability will need to be robust enough to be credible despite rising debt indicators. Otherwise, borrowing costs could continue to rise. Moreover, the risks are likely to the downside. The NT's projections assume that real GDP will expand 2.2 per cent in 2022 and 1.6 per cent in 2023, which is not high, but remains above pre-pandemic growth levels. If growth disappoints by 1 per cent per year, this effect can add 3.5 per cent of GDP in debt over three years. With this growth miss and a sustained 1 per cent of GDP deterioration in the primary balance, the debt to GDP can rise 5.5 per cent of GDP over the baseline in three years. The composition of the adjustment is positive from the point of view of allocative efficiency. Real

reductions in current spending, especially on the public sector payroll, are warranted given the significantly high public wage premium and the rising public-private wage differential. On the revenue side, tax projections seem broadly reasonable, although it is notable that real VAT collections are expected to increase relative to 2019/20 while real CIT, PIT and other tax collections are expected to decrease. The challenge in implementing the proposed budget programme appears in our view to be fundamentally political, not technical or administrative, as although the programme will benefit the general public by facilitating an expansion of growth and employment, vested interests will tackle likely have to be tackled.

The path to containing the wage bill outlined in the budget framework is ambitious but well placed. South Africa's public sector wage bill is unusually large, so the plans to reduce it can be considered appropriate. According to the World Bureaucracy Indicators, South Africa's public wage bill is in the 83rd and 84th percentile as a share of GDP and government expenditures, significantly above both the advanced and emerging markets average and median. Growth in the public sector wage bill has been so pronounced after the GFC that it has been the main driver of overall budgetary expenditure growth. To reduce the burden of the wage bill on the budget, it will be important to maintain wage growth below nominal GDP growth, such that the ratio of wages to GDP can decline alongside (modest) real public sector wage increases. The 2021 budget contemplates a more ambitious real reduction in public wages (nominal growth below inflation), as illustrated by Figure 58.

Figure 58: General government wage bill scenarios, percentage of GDP



Note: real growth rates for the wage bill from Budget Review 2021 at NG level are extrapolated to SARB estimates on consolidated government compensation of employees' data to estimate implicit evolution of wage bill as percentage of GDP in the NT Budget.

Source: authors' elaboration based on SARB and National Treasury data.

As our analysis show, the public sector wage premium varies across the wage distribution and is the highest at the median. This might indicate that different approaches could be necessary for different occupations and salary ranges. The government could benefit from benchmarking — potentially by occupation — public sector wages to private sector's to better anchor the public discussion. Aside from these factors, it will become increasingly important for productive policy to shift its focus away from public works programs towards a structure that involves a larger degree of collaboration with the private sector, with a focus on promoting employability. In this regard, an expansion of the Employment Tax Incentive should be considered, although the effectiveness of the programme is still a subject of debate.[37]

[37] Bhorat et al. (2020); Budlender and Ebrahim (2021).

The national government should exercise more fiscal control and oversight over SOEs to limit the risks from contingent liabilities and unplanned fiscal outlays. The credibility and execution of South Africa's fiscal framework will partly depend on the country's ability to limit unexpected expenditures related SOEs and contingent liabilities, which as previously argued, have contributed significantly to the national government's rising debt burden. These potential fiscal pressures are large. Eskom, SAA, the Post Office and South African Express have requested bailouts and capitalizations in the recent past and could do so again. South Africa is also exposed to significant contingent liabilities from SANRAL, Trans-Caledon Tunnel Authority, Landbank, Development Bank of South Africa, Transnet and others. Beyond SOEs, the country is exposed to independent power producer contracts through Eskom. Contingent liabilities add up to more than 10 per cent of GDP and have been recently estimated to constitute a potential drag on debt sustainability in the medium term.[38] In this context, governance and financial reforms for SOEs are essential, as is the need to reduce discretion in the relationship between SOEs and government, particularly in terms of information sharing and transparency. Introducing approval for large capital projects and additional guarantees, as well as debt and investment ceilings and subjecting SOEs to detail risks of contingent risks should be all considered. [39] Nevertheless, South Africa's relatively modern SOE governance architecture has not succeeded in adequately containing fiscal risks, which should serve as a warning that additional rules and institutions might not lead to the desired turnaround. Finally, the government should beware that even the modernization of network industries may impose fiscal costs, particularly in the case of Eskom, as opening the power sector to more competitive players could leave Eskom in a worse financial position in the short-term, if no complementary effort is pursued to heal the company's finances.

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Appendix

Table A1: Stakeholder interview quotes

Period	Question	Quotes
2007-2019	**Macroeconomic Policy Objectives**	'Fiscal sustainability, currency stability and economic growth and job creation' 'We do not have a well conceptualized growth and employment objective.' 'Track record of action taken suggests that [growth, employment, investment] were not actually priorities — at least not in any coherent form'
	Fiscal Policy	'Fiscal policy was countercyclical and appropriate post 2008 crisis. However, it was not responsive in pulling back into 2010 onwards' 'The outstanding fiscal consolidation post-1996 was largely undone' 'In hindsight, neither was fiscal policy appropriate for the business cycle because spending and income growth was based on a business cycle forecast that was proven to be too optimistic' '[…] there was increasing evidence of overspending, unauthorized spending in government departments, poor outcomes in spending on social services […]' 'Where allocative efficiency in the public is concerned it is hard to ignore the tremendously wasteful support of SOEs' '[…] the small aggregate growth in non-interest expenditure of 0.3 per cent over the past three years masks significant cuts and re-prioritizations that have taken place […]'
	Monetary Policy	'[…] The inflation targeting regime has stood the test of time and the targets remains appropriate as nominal anchor for SA's monetary policy.' 'The obsessive adherence to inflation targeting, at the arbitrary rate of 3-6 per cent, remains a key weakness of monetary policy' 'Monetary policy was largely appropriate in relation to the business cycle.' 'Monetary policy tightened too soon in 2015. Looser monetary policy in 2014-2017 would have been good for government finances and business' '[…] the 6 per cent level at which inflation expectations stabilized was still too high when compared to the average inflation rate in emerging markets.' '[…] the implementation of […] Basel III did not have the dire consequences for the cost of finance predicted' 'The banking system and banking regulation is probably too conservative, and the application of Basel III didn't help in creating expansionary credit conditions.' 'The volatility of exchange rate is a problem, but it is less clear what can be done'
	Productive Policy	'SOEs played an important largely adverse role over this period.' 'Electricity shortages, due to general dysfunction at Eskom and inappropriate energy policy, have been a material and persistent binding constraint on economic activity […]' 'There has been a swathe of business regulations that have undermined competition and the opportunities for a profitable and competitive private sector' 'Questions about property rights (for instance, debates about land) created significant uncertainty among foreign and local businesses wanting to invest' 'There were very little (positive) microeconomic policy changes that had an impact on the macroeconomic environment.'
2020-2021	**Response to COVID-19**	'Largely appropriate given that the economy faced the largest shock on record. It was appropriate to have accommodating monetary and fiscal policy.' 'Given the fiscal constraints in place at the time of the Covid crisis, the fiscal response was probably the best the government could muster.'

			'However, the rollout was hampered by corruption and inefficiency. In addition, there should've been more emphasis on providing direct subsidies to businesses, to supplement the loan guarantee scheme.' 'For the most part, government has responded poorly: barely any change in resource allocation […]' '[…] But it has also distracted us from the structural challenges required to create the right and enabling environment for private sector investment and business growth'
2021-	**Fiscal Policy**	*Taxes*	'[…] scope to pivot the tax system away from taxing wages and profits towards taxing consumption, property, and carbon more' '[…] introducing a wealth tax both for its revenue potential and the effect it can have on inequality' 'Ramp up carbon tax, but keep it neutral for the corporate sector' 'Tax the upper end of PIT scale who have enjoyed tax reductions over recent decades. Do not raise CIT in a recessionary environment but also do not lower it in a misguided race to the bottom' 'Steps to broaden the tax base, like cutting down on tax incentives that do not seem to achieve the objectives' 'Improving revenue administration and tax efficiency' '[…] there is little scope for South Africa to increase tax rates in future if it is to remain competitive […]'
		Spending	'Target spend where there are high growth and employment multipliers' 'It is less a problem of spending programs and more their productivity.' 'Reduce salary expenditure on central and provincial government' 'Also review goods-and-services contracts to identify overpriced and possible corrupt contracts.' 'Inter-governmental fiscal relations need some attention' 'There are many industrial policy programs/funds that have never been adequately assessed'
		Deficit Targets	'Fiscal targets are necessary to restore fiscal sustainability.' 'Targets or fiscal rules are not the measures that guarantee the fiscal results needed.' 'In addition to the debt/GDP ceiling, a ceiling on civil service salaries […] should be considered.'
		Debt Composition	'The structure of public debt is adequate with long maturities and mostly denominated in local currency' '[…] a more balanced maturity structure of debt: having very long maturity structure is a source of stability but also increases the financing cost of debt and increase the cost of long-term investment for firms' 'In the longer-term there are range of instruments, […] but some form of capital flow management is going to be essential.'
2021-	**Monetary Policy**	*Inflation Targeting*	'[…] over a period of three to five years manage the inflation target range's midpoint to 3 per cent to align it with other emerging market countries.' 'Formalizing the implicit 4.5 per cent mid-point target into an explicit point target' 'South Africa should complement its inflation target with an employment and growth target.' 'To lower inflation targets at present, will give a wrong signal.' 'I would replace them with a general formulation about price stability'
		New Tools	'the problems lie well beyond the monetary influence frontier.' 'What [SARB] does at present is sufficient.' 'It should consider any instrument as long as it does not compromise SARB long term stability objectives.'

		‘In the short term far more aggressive QE is required.’
	ER Policy	‘The level of the exchange rate is a fiscal and growth problem and monetary policy cannot and should not do anything about it.’ ‘Exchange-rate management is essential for maintaining short-term stability of the nominal exchange rate’
Productive Policy	‘The broad thrust of policy should be focused on deregulation and liberalization where possible’ ‘The implementation of policy changes that will make it easier to appoint and retrench labour’ ‘[…] eliminate the industry-specific stumbling blocks to investment, in exchange for these companies undertaking bigger investment plans’ ‘Facilitate and support private sector investment in investments such as rail infrastructure, harbors, green energy, but most important deal with water, electricity and refuse removal at local government level’	