Time consistency and economic growth: A case study of South African macroeconomic policy

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Abstract

The numerous diagnostic studies and policy recommendations that exist for South Africa typically focus on microeconomic constraints to growth. Higher potential growth certainly requires structural reforms to boost productivity growth, in particular to allow private competition and investment in network sectors. But these reforms and others will also be more effective if macroeconomic policy facilitates the relative price adjustments and consequential factor allocations needed to achieve higher productivity. Sustained and large fiscal deficits, higher debt, and relatively high inflation all impede those price and factor adjustments. Looking back to the global financial crisis, different policy settings in fiscal, monetary and macroprudential policies, backed by structural reforms, could have supported higher growth outcomes and provided the fiscal space to respond to the current COVID-19 crisis more effectively.

1 Introduction[1]

In 2013, we published an article that identified some of the major obstacles to growth in South Africa, provided policy recommendations, and modelled their impact.[2] Since then, South Africa's structural impediments to growth have become even more binding and macroeconomic imbalances ever more challenging as economic performance has deteriorated.

The economy's growth rate decelerated steadily from 2011 to 2019. Unemployment has reached post-apartheid highs and educational outcomes remain poor. Manufacturing output continues to languish and export volumes have

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[2]See Faulkner, Loewald, and Makrelov (2013).

been largely unchanged over the last 10 years.[3] Government debt reached 63% of gross domestic product (GDP) in 2019, before much larger deficits caused by the pandemic response, and may increase to more than 100% within five years. Eskom still cannot supply electricity reliably and has become a major fiscal liability. The few positive developments include a decline in inflation, helped by more effective monetary policy and also lower inflation globally, and a relatively high terms of trade giving lift to the commodity export sector.

The COVID-19 pandemic and lockdown response has deepened the economic malaise, inflicting major supply and demand shocks to the domestic economy. Fiscal resources must be found and applied effectively to mitigate the health and economic costs of the pandemic, but in a time-consistent way: near-term fiscal and monetary policies need to remain consistent with longer term macroeconomic stability and the need to raise potential growth. In our view, short-term needs are critical, but so too is the long-term. Too much day-to-day policy commentary over-emphasises the short-term.

The extensive diagnostic studies and policy recommendations that exist for South Africa typically focus on microeconomic constraints to growth, as we did in our earlier article.[4] Higher potential growth requires structural reforms to boost productivity growth. But these reforms will also be more effective if macroeconomic policy facilitates rather than impedes the needed relative price adjustments and consequential factor (capital and labour) allocations to get higher productivity. This is our focus in this article, in which we review the trajectory of policy and draw on a wide literature in several fields of economics to support our analysis and views.

2 Time-consistent macroeconomic policy

The COVID-19 pandemic and scramble for financial resources to respond to it have prompted critiques of macroeconomic policies of various kinds. One of the more regular, long pre-dating the pandemic, is that overly tight macroeconomic policy should be blamed for South Africa's poor economic performance and fiscal mess.[5] This description of policy appears, however, to be without much foundation. Most measures of policy stance show expansion dating back to well before the global financial crisis (GFC). Growth in real public spending has outpaced GDP growth, fiscal deficits have been consistently large, and this has resulted in a rough tripling of the public debt. There have been periods of fiscal

[3] Economic growth slowed from 3.3% in 2011 to 0.2% in 2019 and unemployment increased from 24.8% to 28.7%. Manufacturing output in 2019 was only 3.6% higher than in 2007.

[4] This includes numerous reports from international institutions, the National Development Plan, the ASGISA program, and most recently the National Treasury growth paper released in late 2019.

[5] Moleko and Swilling (2020) argue that 'Neo-liberal economic policies have yielded poor levels of growth and productivity'. The report argues for more expansionary fiscal and monetary policy and capital controls, largely ignoring macroeconomic constraints for savings constrained economies such as South Africa. The policies are motivated by using a model, which has been shown to be unsuitable for this type of analysis (Loewald, Mjandana and Makrelov 2020).

restraint, in particular from the mid-1990s to around 2001 and then again from 2005 to 2007, although in the latter period growth in real spending levels was very rapid and 'restraint' was only meaningful relative to a stronger boom in commodity revenues.[6]

On the monetary policy side of the ledger, real, inflation-adjusted, policy interest rates have been generally low and often negative post-GFC, with inflation relatively high up to 2018, particularly seen in the light of globally weak price pressures. External imbalances, shown in the current account deficit, have until the onset of the COVID-19 pandemic, been substantial, requiring foreign financing of South African spending. The currency has depreciated in real terms by about 20% in 10 years, indicating expansion but also serving to underscore the point that little of this has impacted durably on economic growth.[7]

South Africa's post-crisis expansionary macroeconomic policies failed to ignite growth, not because of insufficient spending, high interest rates, or inadequate currency depreciation, but because they simply failed to address underlying growth problems. This mismatch between intentions and outcomes appears to be especially acute in public spending, where estimates of fiscal multipliers have turned small and often negative, consistent with significant growth in real spending but weak growth rates.[8] The lack of feed-through of public spending to the private sector further suggests that the composition of spending is skewed away from healthier multipliers – too much consumption and too little investment.

Policy was also primed to miscalculate the safe pace of expansion and generate imbalances because critical estimated inputs to policy settings proved to be inaccurate. With negative shocks to supply and competitiveness (electricity availability, prices, and unit labour costs), meagre and wasted investment in key network sectors, and human capital constraints that went unresolved, there was far less room to grow without imbalances than often thought. This point has been highlighted by ongoing revisions of estimates of past potential growth that showed much lower outcomes than did the real-time estimates that guided policy.[9]

This interaction between deteriorating potential growth and continued efforts to stimulate leaves South Africa in poor condition to address the economic consequences of the pandemic. In the short term, the pandemic's economic effects have caused negative supply and demand shocks that have on balance softened inflation outcomes and the trajectory, creating considerable monetary policy space that the Reserve Bank has used to cut the repurchase rate aggressively. Many other recommendations have been made for dealing with the pandemic, including direct monetary financing of public deficits. But without inducing real economic growth, recommendations to create nominal rands to-

[6] Some of the strongest real growth in public spending since the end of apartheid came in the 2000s.

[7] Positive real growth, generated for instance by productivity gains, normally appreciates the exchange rate, as described by the Balassa-Samuelson effect.

[8] We present a review of the literature in the Fiscal Policy section.

[9] See for example Fedderke and Mengisteab (2017).

day through inflation or by printing money to buy bonds run a serious risk of compounding existing fiscal weaknesses, while eroding what there is of economic strengths. Financing more ineffective spending using the savings of workers in the country's pension funds meanwhile is likely to discourage household saving and merely creates large additional tax liabilities that will weigh heavily on future economic growth.[10]

In the implicit macroeconomic model we think applies to South Africa, the exchange rate provides the outlet for stress, making current account deficits a better measure of overall imbalance than output gaps.[11] This further implies that real depreciation is the final means of rebalancing the economy and moving to higher productivity – reducing imports, increasing exports, generating investment, and attracting creditors back in to finance the economy. But this resort to depreciation cannot result in an endless, iterative, inflationary process. In the wake of real depreciation, attaining lasting economic benefits require low inflation, achieved by sustainable fiscal balances and credible monetary policy. In the context of large budget deficits to address the current shocks, financing these responses successfully now and in future and at low cost also requires delivering clear, coherent, and credible fiscal consolidation plans that reduce risk premiums and required bond yields.[12]

Fiscal resources are needed to effectively respond to the pandemic shock – providing income support of various kinds, and expansion of health care capacity – yet it is accompanied by profound fiscal weakness, as borrowing costs rise sharply and with past fiscal efforts having made little impact on long-run economic growth potential. The extraordinary monetary expansion of major advanced economy central banks and treasuries has indirectly created some fiscal space to run larger deficits and to borrow more, but given South Africa's stretched starting point there are strict limits to this. Debt sustainability metrics reveal the need for significant fiscal consolidation and much more rapid real economic growth.[13]

Achieving better fiscal and macroeconomic outcomes could be made easier with a determined shift in spending composition toward investment in infrastructure and human capital accumulation and some moderation in what has become a growth-negative tax burden. These moves would reduce the size of the consolidation needed by boosting productivity growth and reversing the decay in fiscal multipliers. More investment will better address long-term socio-economic

[10] By the same token, so too would printing money by the central bank to buy government bonds. Coupons and capital need to be paid back, or the central bank will have to be recapitalised, both liabilities of the treasury and the tax base.

[11] A macroeconomic balances framework has two, related balances. One internal, defined as the simultaneous attainment of a low output gap or full employment and low inflation, and an external balance defined as the real exchange rate consistent with a sustainable current account deficit and internal balance.

[12] Real depreciation reflects a permanent change in real costs and income levels versus the rest of the world, reducing import demand and increasing production of exports. It also reduces real income levels until productivity raises it again.

[13] See for example Moody's (2020) and the IMF Article IV report. https://www.imf.org/en/Publications/CR/ Issues/2020/01/29/South-Africa-2019-Article-IV-Consultation-Press-Release-and-Staff-Report-and-Statement-by-49003

needs and inequality.

In summary, expansionary policies can boost short-run growth but that growth is inefficient and weak, prone to cause or aggravate destructive internal and external imbalances and clearly insufficient to create jobs and reduce inequality on a sustained basis. Far better would be to directly address the rigidities that price workers and nascent firms out of activity, eliminate the regulatory exclusions that give rise to public monopolies and weak competition, and to also set macroeconomic policies to be less inflationary generally. This is important to make clear the intra and inter-sectoral relative price movements that are signals for investment, production and factor-demand decisions of firms.

Long-term investment can also be induced by recasting macroprudential policy, which has successfully reduced financial stability risk but at some growth cost, through impairing the monetary transmission mechanism. Macroprudential regulatory reforms could further reduce the short-term procyclical costs of retaining financial stability, while helping to incentivise marginal financing toward environmental and health needs that have positive short- and long-run externalities. This requires for example reviewing the risk profile of government bonds vis-à-vis other financial instruments such as green bonds and adjusting capital risk measures to take into account climate risks (Arndt, Loewald and Makrelov 2020).

We start by assessing South Africa's shortage of domestic savings and reliance on foreign capital, since this shapes the choices available to macroeconomic policy. From there we look at the role of fiscal, monetary, and macroprudential policies and their impact on the economy, before concluding with guidance on policy direction.

3 South Africa's savings problem

A critical macroeconomic fact confronting policy making is that South Africa's savings rate is far too low to finance even a relatively weak domestic investment rate (Figure 1) without borrowing from foreign savers. This contributes directly to the economy's low growth potential.[14] The current account deficit resulting from the excess of consumption over production has been substantial for most of the period since 2003, even with growth slowing to less than 1% in recent years.[15] The largest part of the current account deficit is caused by the fiscal deficit, and the financing of this has attracted considerable foreign saving. Non-resident holding of rand-denominated debt peaked at about 43% before the

[14] Experience of the Growth Commission's 13 examples of 'economic miracles' finds overall investment rates equal to 25% of GDP or higher are needed to achieve and sustain high growth, and that 'there is no case of a sustained high investment path not backed up by high domestic savings' (Commission for Growth and Development 2008).

[15] The relationship between savings, investment and the current account is a fundamental national income account identity (see Olivei (2000)). South Africa's low national savings and the role of the government has been discussed extensively in the IMF Article IV assessments. https://www.imf.org/en/countries/zaf?selectedfilters=Article%20IV%20Staff%20Reports#whatsnew

crisis, before falling to about 30% as foreign demand for rand debt decreased and issuance accelerated. The level remains well above the emerging market average (Figure 2).[16]

Cheap foreign financing has been one of the key ingredients of the post-GFC global recovery, driven by loose monetary policy in advanced economies and increased risk appetite. These factors have pushed foreign capital to emerging markets and on balance have kept funding relatively inexpensive.[17] Domestic factors have also helped to attract capital, including a history of sound policy, higher relative real risk-adjusted returns on investment, a sophisticated local financial market, and the liquidity of the local currency. For quite a few other emerging markets, much stronger economic growth has been a key pull-factor for foreign capital.

Foreign savings can be both a benefit and a vulnerability. Capital inflows enable economic agents to spend more than they earn now, but expose that spending to reversal if the savings is suddenly withdrawn and can cause severe economic damage as output and employment levels fall.[18] This risk materialised for South Africa when the last investment grade sovereign credit rating was downgraded in March 2020, even with relatively low levels of foreign currency exposure. Capital outflows and risk aversion causes financial institutions to contract lending to safeguard balance sheets, irrespective of the extent of foreign currency liabilities (Makrelov, Davies and Harris 2019).

Where capital flows out, perhaps because of a general deterioration in risk appetite of foreign savers, countries depending on the saving need to adjust. Usually, where a current account deficit exists, current and future domestic savings needs to rise by reducing household and government consumption and increasing net exports. This can occur through discretionary cuts to public sector consumption, or adjusting credit requirements to reduce household borrowing and consumption. In the absence of steps like these, higher real interest rates will be required to attract more foreign savings to return and to encourage greater domestic savings. A higher interest rate level further appreciates the currency, weighing against growth in tradables. To offset that appreciation, lower inflation and greater domestic saving need to be generated. After several steps in the adjustment process, there would have been losses of firms and jobs and new ones created in sectors and activities with higher returns.

Allowing high inflation may seem like a useful approach to the fiscal debt problem, but since there are no gains to real growth from inflation, all this really does is reduce returns to savers and further limit the pool of available financial resources. If higher inflation is intended as once-off improvement in fiscal balances, then the cost of the inflation is borne by a lower purchasing power of the poor, deepening marginalisation, with fewer jobs and at a higher inflation rate. For these reasons, it is critical that market access to foreign saving

[16] Over the last decade, non-resident holdings of ZAR government bonds have increased by more than tenfold, to about R740 billion (15% of 2020 GDP).

[17] See for example Ahmed and Zlate (2014), Rey (2015) and Eller, Huber and Schuberth (2020).

[18] See for example Cavallo et al. (2015) and Eichengreen and Gupta (2016).

be maintained and economic adjustment be facilitated both with macroeconomic policy settings and widening the pool of financial resources, in particular from official multilateral institutions.

4 Fiscal policy

In the post-GFC era, fiscal policy has been the primary determinant of the low domestic savings rate, not just in directly dissaving but also indirectly by failing to drive up growth rates, incomes, and private savings. And yet, the primary rationale for fiscal settings has been to provide counter-cyclical impetus to a growth rate that decelerated consistently from 2011. Certainly, strong real growth in spending was achieved, with growth averaging almost 4% per year over the entire period, and increasing by more than 7% in the last year alone (Figure 3). As a result of real growth in spending, government now constitutes about 33% of GDP, up from 25% in just over 10 years (a rise of roughly R350 billion in 2020 terms).

Initially, some of the increase in spending was financed by higher tax revenues, which increased by 2 percentage points of GDP, from 23.9% in 2010/11 to 25.9% in 2016/17, slightly outpacing the move in the spending to GDP ratio and generating a marginal improvement in the fiscal deficit over this period (Figure 4).[19] But much of that rise in revenue to GDP was likely growth negative, coming about through a large increase in the effective real personal income tax rate, above-inflation increases in consumption taxes, and the withholding of refunds by the revenue service.[20] As growth faltered, moreover, and tax buoyancy declined below projections, these tax increases were insufficient to keep the revenue ratio to GDP up. Instead, the ratio stabilised at about 26% of GDP, and fiscal deficits worsened.[21]

With an extensive literature finding that tax measures have larger multipliers than expenditure-based measures, it seems hard to avoid the conclusion that the emphasis on tax increases after 2016/17 had a significant contractionary impact on the economy.[22] Policy shifted after 2019, with tax increases largely eschewed in an effort to offset the weak growth rate.

From a compositional perspective, much of the historic pressure on available resources came from the public-sector wage bill which grew by 40% in real terms over a 12-year period, although transfers to provinces (health and education expenditure) and social grants also increased strongly. Within the basic education

[19] The government expenditure to GDP ratio increased by 1 percentage point over this period to 29.5%.

[20] In the absence of these tax changes, we estimate that the tax to GDP ratio would have been about 24.3%, and probably lower due to stronger growth.

[21] The decline in tax buoyancy reflects several factors including slower economic growth (partly a function of tax increases); the reduction in accumulated PIT, VAT and CIT refunds; recovery in the exchange rate in FY16/17, compositional changes such as weaker durable goods spending that are subject to VAT, increased allowances for retirement savings, higher levels of tax evasion associated with corruption and state capture within the revenue service, and a declining capacity to collect revenue.

[22] See Alesina, Favero and Giavazzi (2019) for a review of the literature.

and health spending envelope, non-wage spending has slowed sharply, consistent with the rapid increases in public wages. More recently came demands to finance operational spending of state-owned firms (NT 2019).[23]

The rise in debt and in interest costs have further exacerbated the overall fiscal challenge, with the latter becoming in the last few years the fastest growing spending component, rising at more than 12% per year. As a result, debt service costs increased to 4% of GDP and absorbed 15% of tax revenues in 2019/20. By contrast, investment spending has declined, with the public-sector investment ratio falling to just 5.4% of GDP, further reducing the fiscal impact on long-run growth.

The 2020 Budget finally concentrated on slowing the pace of wage bill growth to reduce the government expenditure to GDP ratio, although spending on social, economic, and community development as well as health continued to rise in real terms.[24] Lower tax revenue and higher transfers to state-owned companies, however, were sufficient to offset expected slower wage bill growth, resulting in a rise in the estimated main budget deficit to 6.8% of GDP in 2020/21.

The persistent primary and main budget deficits have led to a large increase in debt, which rose from 26% of GDP in 2008/09 to 63% in 2019/20, a more rapid debt build-up than in most other emerging markets.[25] Debt levels showed little sign of stabilising in the Budget 2020 projections, with the debt to GDP ratio expected to reach 72% within three years.

The COVID-19 crisis has led to a rapid and significant deterioration in the fiscal framework, with the main budget shortfall set to widen to almost 15% of GDP in 2020/21. Without a policy response debt to GDP is likely to rise unabated, above 100% by 2023/24 and to about 140% over the next decade (Figure 5).[26]

This level of debt is well above most estimates of sustainability.[27] The gov-

[23] The government has provided R106 billion of fiscal support to public sector institutions over the last five years and projected another R129 billion of recapitalisation and bailout payments over the FY20/21 to FY22/23 period in the 2020 Budget. Eskom and South African Airways have been the main beneficiaries.

[24] National Treasury outlined a plan to cut the government wage bill over the next three years by R160 billion, which if achieved would mark a real decline in spending on public sector wages.

[25] Burger, Siebrits, and Calitz (2016) and more recently Burger and Calitz (2020) estimate fiscal rules for South Africa highlighting that the post Global Financial Crisis period was characterised by unsustainable fiscal policy. Surprisingly, the results suggest that fiscal dynamics were already unsustainable in 2010. Mbeki et al. (2018) and Calitz (2020) also highlight the emerging fiscal risks and unsustainable fiscal balances. In a review of fiscal policy, Burger and Calitz (2015) highlight several risks to fiscal sustainability. These include expenditure related to proposals in the National Development Plan, the possible implementation of a national health insurance and infrastructure spending. They did not foresee the large bailouts for public enterprises.

[26] These are the projections from the 'passive' scenario presented in the Supplementary Budget Review (National Treasury (2020)).

[27] See, for example, Caner, Grennes and Koehler-Geib (2010), Elmeskov and Sutherland (2012) and Reinhart and Rogoff (2010). These studies find that debt levels in the range of 70%–90% of GDP are unsustainable, depending on the sample of countries studied and risk

ernment has therefore outlined an 'active' scenario with the goal of establishing a primary surplus in three years' time with debt peaking at 87% of GDP. To achieve this, the government has proposed fiscal savings of about 250 billion rand over the next two years, including R234 billion of spending cuts.[28]

5 Fiscal multipliers

Fiscal policy is meant to contribute to short-run economic growth by spending otherwise saved income, counter-cyclically. It can also contribute to growth by deepening human, public, and private capital and raising their productivities. The anomaly is that despite policy intentions, neither counter-cyclical nor developmental outcomes are clear.

If we strip out the amount of change in the budget deficit that covers a change in the output gap, this cyclically adjusted budget deficit (SBB) has been large (see Figures 6 and 7). It widens further if we adjust for the terms of trade and for revenue effects (price and tax compositional effects).[29]

The nominal impact of fiscal deficits on growth can also be measured by the year to year change in the size of deficits, where a fall in the size of the deficit is held to be contractionary.[30] An analysis of fiscal impulses – the change in the cyclically adjusted primary (SPBB) and main budget balances – shows that the fiscal stance shifted from small contractions (of about one-third of a percentage point each year) between 2013/14 and 2016/17 to robust expansion (nearly 2 percentage points) subsequently.[31]

Fiscal deficits should reveal their growth effects via multipliers that take into account general equilibrium effects, including potential growth, the import

sentiment. For developing countries, the threshold is lower.

[28] The government indicated that it would be guided by the principles of zero-based budgeting to determine what policies and programmes will be funded, and where spending cuts would be made.

[29] We calculate the structural budget balance using the approach of Braconier and Forsfält (2004). This is the same approach as used by the National Treasury and it is similar to the approach used by Mercier (2017). The approach adjusts for the business cycle as well as for deviations of the terms of trade and tax to tax base ratios from their equilibrium. The equilibrium values are calculated as the average over the period 2011 to 2018. We use the SARB's output gap estimates for the calculation. Adjusting for the terms of trade captures temporary price effects on revenue collection, while tax effects adjust for compositional changes in revenue. Our results are in line with those presented by Mercier (2017) and Amra, Hanusch, and Jooste (2019), who find that the structural budget balance was narrowing until 2015/16. Our results are also similar to the 2019 IMF Article 4 calculations. https://www.imf.org/en/Publications/CR/Issues/2020/01/29/South-Africa-2019-Article-IV-Consultation-Press-Release-and-Staff-Report-and-Statement-by-49003

[30] These simple measures ignore that the deficit is a borrowing from future taxpayers or whether the economy is in imbalance.

[31] Amra, Hanusch and Jooste (2019) provide assessment of fiscal policy prior to 2013/14. Fiscal policy was counter- cyclical just before and after the global financial crisis. Counter cyclicality was not strong enough before the financial crisis as a larger share of commodity-linked revenues should have been saved. The fiscal stimulus in the immediate period after the global financial crisis was based on permanent increases in expenditure, which made them difficult to be reversed at a later stage.

intensity of consumption, and assumptions about households' ability to anticipate future tax increases. These multipliers help assess the contribution of fiscal policy to GDP growth. The literature is extensive, with studies finding South Africa's fiscal multipliers to be small and possibly turning negative under the conditions that have prevailed since 2013.[32] A rough measure of the growth effect is the government expenditure to output ratio (Figure 8), which highlights the declining potency of government spending over time.

Why has fiscal policy not been more growth enhancing? Part of the answer is different conditions in advanced and emerging economies. The case for expansionary fiscal policy is made most often in relation to advanced economies in the post-2008 period, where, with interest rates at a zero lower bound and very low inflation, fiscal multipliers are significantly larger than in 'normal' periods (and can be amplified by financial dynamics) (Blanchard and Leigh 2014; Christiano, Eichenbaum and Rebelo 2011; Delong et al. 2012; Eggertsson 2009) Makrelov et al. (2020) show how a positive fiscal expenditure multiplier occurs when debt is sustainable, a large negative output gap exists, capital inflows are positive, and the financial sector is healthy. If these conditions are not present; however, the financial channel can sharply lower the fiscal expenditure multiplier or turn it negative. In particular, where debt levels are unsustainable, multipliers tend to collapse, even in recessionary conditions, a problem more evident in emerging markets than advanced economies.[33]

6 Crowding out

Initial conditions – output gap size, debt levels, and inflation – are, therefore, critical for ascertaining the growth gain from expansionary fiscal policy. Where debt is high and sovereign risk premia rise non-linearly, fiscal multipliers fall sharply (Burriel et al. 2020).[34] Rising risk aversion and risk premia also increase the neutral interest rate (Jaramillo and Weber 2013; Summers and Rachel 2019).

In these adverse starting conditions, clearly evident in South Africa, further fiscal expansion crowds out the private sector (Alesina, Favero, and Giavazzi 2019; Burger and Calitz 2020). As growth falls below the level of real interest rates, and fiscal authorities continue to run primary deficits, the debt to GDP ratio rises unabated (see Blanchard (1990)). Adding in the financial channel, which amplifies the contraction of the private sector, creates a vicious cycle of

[32] The calculation of fiscal multipliers is subject to many assumptions and limitations. The size of the expenditure multiplier depends on the methodology used, the business cycle, the import intensity of the economy, the share of Ricardian households, the presence of financial dynamics and others. No study takes all of these into account. See for example Jooste, Liu and Naraidoo (2013), Jooste and Naraidoo (2017), Mabugu et al. (2013), Makrelov et al. (2020), Kemp (2020) and Kemp and Hollander (2020). The general conclusion is that given the increase in the debt and risk premia, the size of the output gap, the funding of government expenditure, the rising concerns of debt default, and the import intensity of the economy, the fiscal expenditure multiplier has declined substantially over the period 2013 to 2019.

[33] See for example Bonam and Lukkezen (2019) and Corsetti et al. (2013).

[34] Bayoumi, Goldstein and Woglom (1995) and Haugh, Ollivaud, and Turner (2009) provide empirical evidence of the non-linear relationship between debt and risk premia.

rising debt and falling output. When debt levels and interest rates are high and GDP growth is low, the international and local literature suggests that, a rapid fiscal consolidation through expenditure cuts is more effective and likely to generate positive growth effects in the medium to long run.[35]

This is the predicament that South Africa faces, struggling with the combination of close to zero economic growth, rising real interest rates, large deficits, and a policy response that has focused on tax hikes rather than spending adjustments. Risk premia have increased on a sustained basis and relative to other emerging markets (Figures 9 and 10).

Declining inflation and inflation expectations should have supported lower bond yields in recent years, yet sovereign risk has risen and real bond yields have increased by more than 2 percentage points to draw in the capital needed to finance the fiscal shortfall Soobyah and Steenkamp (2020a) show that it is domestic factors that are driving these changes rather than global factors. In addition to the risk premium, the term premium has also increased, steepening the yield curve and generating additional crowding out effects (Soobyah and Steenkamp 2020b). Fiscal space has become severely constricted, compromising the fiscal policy response to the COVID-19 crisis.

If South Africa has been characterised by a contractionary fiscal expansion in recent years, then the conditions appear to be in place to achieve expansion through a well-executed fiscal consolidation. We suggest setting fiscal policy to explicitly lower South Africa's risk premium, lower yields, and crowd-in private borrowing. Positive growth effects would be strengthened if fiscal contraction was achieved via spending cuts to consumption and wage growth rather than investment spending. Extending the logic of the tax literature, commitments to reverse earlier tax increases in future could further bolster growth prospects. This recalibration of fiscal policy could also enable a more relaxed monetary policy stance, while a raft of microeconomic reforms and policy certainty could foster improved confidence, stimulating investment, and lifting longer term growth potential.

7 Monetary policy

Inflation and inflation expectations have fallen since 2016, after hovering around 6% for most of the decade. Policy rates have been well below historical averages. Yet, monetary policy has been subject to criticism. The main argument has been that it has been too tight at times, given the size of the output gap, as it has

[35] For review of the literature see Molnar (2013), Burger and Calitz (2020) and Alesina, Favero and Giavazzi (2019). The key conclusions are tax increases can also be an effective consolidation measures but only when the tax rates are well below the optimal rates; successful consolidation episodes require cuts in government wage expenditure; consolidation episodes do not always generate positive growth effects as the impact depends on the underlying political and economic conditions, the type of consolidation as well as country characteristics; and, a credible fiscal consolidation accompanied by monetary policy easing is more likely to generate positive GDP results; maintaining or increasing the share of capital expenditure increases the probability of success as well as improving governance.

responded to supply driven inflationary shocks.[36]

7.1 **Inflation dynamics**

While the past decade has seen a marked deterioration in fiscal metrics, there have been some improvements in inflation dynamics. Headline inflation was at the top of the target for a considerable part of the post-GFC era, but has mostly remained within the 3%–6% target band. Over the longer term, inflation dynamics in South Africa mainly reflect structural factors such as labour market rigidities and their impact on unit labour cost, growth in government expenditure, market power and terms of trade dynamics (Dadam and Viegi 2015; Fedderke and Liu 2018; Fedderke, Obikili and Viegi 2018). But shorter-term changes to inflation, some endogenous and some exogenous, matter. For instance, several factors have supported the decline in inflation expectations, including the recent period of benign food price inflation, a moderation in core price pressures, low global inflation, weaker exchange rate pass-through, and improved monetary policy credibility.

While episodes of drought prompted food inflation to accelerate to more than 10% in 2011 and 2016, since 2016, there has been a marked moderation in food price pressures, with food inflation slowing to less than 6% in August 2017 and averaging just 3.5% over the last two years. At the same time, both services and core inflation have become anchored at a much slower pace, helped by rental inflation (given its large share of the Consumer Price Index (CPI) basket) that has moderated notably in response to soft demand and a large increase in residential housing supply.[37] Since 2016, inflation in tertiary education has moderated, while communication prices have been falling as the costs of data and cellular services have declined and competition authority rulings have imposed price cuts.[38]

Another important driver has been moderating global inflation. Figure 11 shows the change in the aggregate import unit value index (excluding oil) against the rand–dollar exchange rate.[39] Import prices have frequently recorded lower increases than the depreciation in the currency. This has been complemented by lower exchange rate pass-through, possibly as corporates have absorbed depreciation costs onto balance sheets in an environment of weak demand.[40]

[36] See for example Kantor (2019) and Reid et al. (2020).

[37] Rentals and owners' equivalent rent together account for about one-sixth of the consumer basket, with inflation in rentals halving to less than 2.5% in 2020.

[38] Inflation in the tertiary education sector averaged almost 9% over the 2009–2015 period before a series of student strikes across universities prompted a change in government policy.

[39] The import unit value indices show the import prices of South African goods recorded at spot rates. They also reflect global food inflation.

[40] The literature on exchange rate pass-through (ERPT) generally splits the evaluation into two stages: first-stage – the impact of a change in the exchange rate on import prices – and second stage – the effect of import price movements on producer or consumer prices. A battery of studies in South Africa typically finds that overall pass-through has declined over time. In one of the earliest studies, Parsley (2012) documents first-stage ERPT of 60% and second-stage ERPT of 25% using disaggregated retail price data. The study attributes the declining pass-through to changes in the composition of the consumer basket and the

As a result of these trends, disinflation has broadened across the CPI basket, with more than 60% of the basket experiencing inflation rates below 4.5% since mid-2019. By contrast, administered prices have remained a major source of inflationary pressures over the entire post-GFC period, exceeding headline inflation by 2.5 percentage points on average over the past decade. This basket includes electricity and water tariffs and municipal rates and taxes that have not been responsive to the cycle and have persistently increased by more than 6%. A shift in relative prices was necessary to address below-cost pricing and influence demand in certain categories such as electricity and water, but it has also become a tool to pay for inefficiencies in state-owned enterprises and to generate revenue for municipalities.

7.2 **Policy responses**

Implicit in South Africa's inflation outcomes is the monetary policy decisions made over this period. Between the third quarter of 2008 and the fourth quarter of 2009, the policy rate was lowered by 500 basis points as domestic economic conditions deteriorated, reaching 5% in 2012. As a result, the real repo rate declined from 3.5% in 2009 to below zero over the period of 2011–14 (Figure 12), a period that saw inflation average close to the top of the target range. Policy was tightened in 2014 in response, and as risk aversion toward emerging markets with large external vulnerabilities increased in the wake of shifts in global monetary policy and the Federal Reserve's decision to taper its asset purchases. This tightening cycle was, however, more gradual than previous cycles, and the repo rate peaked at 7% in 2016, far below the pre-financial crisis levels of 12%. Inflation rates, however, remained relatively sticky given economic growth outcomes that remained weak despite these historically low policy rates.[41]

The approach to policy shifted in 2017, with a more concerted approach to communications (emphasising the 4.5% mid-point of the target band as the preferred level of inflation) to gradually lower inflation expectations (SARB 2019). This effort coincided with a series of exogenous disinflation shocks, to oil, food prices, and eventually global growth and producer prices. With a relatively stable nominal repo rate, this moderation in inflation pulled up the real repo rate to a level more consistent (than it had been) with the Reserve

pricing behaviour of firms. Aron, Creamer, et al. (2014) control for domestic and foreign costs and find overall pass-through (second-stage) of around 30%. They .attribute the low pass-through to the adoption of the inflation targeting (IT) policy and lower exchange rate volatility. Several other studies, including Jooste and Jhaveri (2014) and Botha (2014), find that ERPT has declined further following the global financial crisis (GFC).

[41] For analysis of inflation and inflation expectation stickiness in South Africa see Reid (2015).

Bank's estimate for the neutral rate.[42][43] The improved effectiveness of monetary policy rested, in our view, on enhancing communication and being clearer about the role of inflation in keeping interest rates up.

Critics of monetary policy make three arguments. One is that output gaps have been large, signalling space to be more accommodative. A second is that tight monetary policy has reduced employment through the Phillips Curve relationship. A third is that second round effects of supply shocks are small and should be systematically ignored because responding to them would cause economic damage. The economic literature however tends to be at odds with each of these arguments. We address each of these arguments in turn.

In the years since the global financial crisis, contemporaneous estimates find substantial negative output gaps, as realised growth outcomes underperform. Retrospective estimates however indicate that potential growth rates have been much too high. A range of studies attribute much lower potential growth estimates to protracted labour strikes, lower commodity prices, electricity prices, slower global growth and policy uncertainty (Botha, Ruch and Steinbach 2018; Fedderke and Mengisteab 2017). In particular, estimates of potential growth have largely failed to control for what is likely a strictly binding electricity constraint.[44] Nonetheless, estimates of potential growth prior to the COVID-19 crisis have been around 1 per cent, well below the 3–4% potential growth assumed until about 2016 when new estimates were circulated.[45] These revisions to potential growth estimates were made retrospectively, implying that contemporaneous monetary policy decisions were in fact based on wider, more negative output gaps.

Turning to the Phillips curve critique, again, a wide range of estimates for South Africa find little positive relationship between inflation and the output gap with these results robust across different measures of slack (Botha, Kuhn, and Steenkamp 2020; Dadam and Viegi 2015; Fedderke and Liu 2018; Kabundi, Schaling, and Some 2019; Leshoro and Kollamparambil 2016; Phiri 2016). This result reflects rigidities in the labour market, with measures of labour cost ex-

[42] A neutral real interest rate (NRIR) is the level at which real interest rates will settle once the output gap is closed and inflation is stable around the central bank's target. Actual economic growth rates should be near potential. The neutral rate used by the Reserve Bank comprises a global rate and a country risk premium, as well as compensation for the expected change in the real effective exchange rate (REER). The approach takes into account that South Africa is savings constrained and dependent on foreign savings Loewald (2018) provides a motivation for this approach.

[43] The result is sensitive to the risk premium measure being used. Currently, the neutral real interest rate calculation is based on the EMBI+ for South Africa, which provides a maturity weighted spread between US and SA bond yields priced in the same currency. A more comprehensive measure is the EMBI Global Index. This index is used by the National Treasury. Using the EMBI Global Index will shift the neutral interest rate line up and the repo line would remain below the neutral line over the entire period.

[44] South Africa's exports tend to be very electricity intensive (Arndt et al. 2013). Meanwhile, there has been disappointing growth for the country's mining and manufacturing sectors in the post-GFC period, which has provided some space for non-electricity intensive sectors to grow.

[45] See the IMF article IV assessment for 2019. https://www.imf.org/en/News/Articles/2019/11/22/mcs11252019-south-africa-staff-concluding-statement-of-the-2019-article-iv-mission

hibiting a much stronger relationship with inflation than the output gap (Fedderke and Liu 2018).

While short-term shocks to inflation matter, microeconomic factors are well-researched causes of the wage rigidities and the broader indexation of wages and prices in the economy (Figure 13) that contribute strongly to inflation. Such factors, and in particular strongly rising public sector wages and administered prices are likely the major causes of the stagflationary malaise evident in the economy over the 2013–17 period. Indexation also weakened the effectiveness of policy responses to negative economic shocks because these shocks do little to lower inflation in the first place, and so with inflation expectations staying high, exogenous shocks to inflation transmit into domestic price determination.

Kantor and Kavli (2011) argue there are no second-round effects from supply side shocks and therefore monetary policy should not respond to them. They study the relationship between inflation and inflation expectations using simple statistical analysis and regressing inflation on inflation expectations, without taking into account the impact of other inflation drivers. Their results are easy to dismiss. Input-output tables suggest strong links between commodities that are often subject to supply shocks and other commodities, and extended supply shocks have a strong impact on the price of downstream commodities. More advanced analysis also supports the presence of second round effects Rangasamy (2017) shows that petrol prices affect the prices of other commodities Ruch (2016) finds that 1% shock to relative food and energy prices increases unit labour costs by 0.32% after four quarters, suggesting strong second round effects Fedderke and Liu (2018) estimate several different inflation models and find supply side shocks to have large impacts on inflation.

Second round effects depend on how inflation expectations are affected. Well anchored inflation expectations at the midpoint of the target can dampen second round effects. The economic literature, however, suggests that for most of the past decade inflation expectations were not well anchored and were driven by past inflation.[46] Short-term inflation surprises have a much stronger impact on the long-term inflation expectations of businesses and unions that in any case have typically been poorly anchored (Miyajima and Yetman 2018). It is only over the last three years that inflation expectations have systematically declined across different groups (SARB 2019). Contrary to Kantor and Kavli (2011), the literature identifies inflation expectations as an important driver of inflation.[47]

Assessing the performance of monetary policy against common measures such as volatility of inflation and GDP (Figure 14) as well as periods that inflation has been outside the target band suggest that monetary policy has been more effective in the post-2009 period, while at the same time real policy rates have remained at an all-time low. [48] Yet despite low policy rates economic growth averaged just 1.4% in the post-GFC period compared with 4% over the

[46] Kabundi and Schaling (2013) find that expectations were adaptive, while Crowther-Ehlers (2019) finds the same using the BER inflation expectations data, albeit with some differences across groups.

[47] See for example Fedderke and Liu (2018) and Botha, Kuhn and Steenkamp (2020).

[48] Chen and Creamer (2019) reached a similar conclusion.

period 1999 to 2008. And while compared with other emerging markets South Africa has achieved lower levels of GDP and inflation volatility, this at least partly reflects the inability to lower inflation to levels similar to other emerging markets and the gradual decline in potential growth.

Considering fiscal and monetary policies together, it is hard to avoid the conclusion that between 2016 and 2019, policies were working at cross-purposes. Fiscal policy ran bigger deficits despite falling fiscal multipliers, directly driving up government debt levels and the country risk premium. This, in turn, increased estimates of the neutral real interest rate – calculated as a function of sovereign risk premium and a global rate – and put upward pressure on policy rates. Monetary policy has moderated inflation expectations, mostly with more focused and active communications, by contrast, and with the advent of the pandemic, the policy space to be more counter-cyclical has opened up. Monetary policy has eased by 300 basis points in 2020 – among the most aggressive rate-cutting cycle globally in response to the COVID-19 shock – taking the repo rate to a historic low of 3.5% from July 2020.

8 Macroprudential policy

In this context, it is worth asking about the role of financial regulations, which were steadily enhanced throughout the post-GFC era. A case could be made that in the immediate post-crisis period expansionary monetary policy was undermined by the introduction of tougher financial regulations, embodied in Basel III, just as we have argued the fiscally driven rise in risk aversion has done more recently.

Basel III aims to improve capital adequacy, stress testing, and liquidity management, with positive effects for financial stability in the medium to long run. Higher capital is expected to improve banks' monitoring of borrowers, reduce moral hazard, and moderate the appeal of risky assets.[49] Yet, the transition to higher capital ratios can have negative short-run effects, and undermine the effectiveness of monetary policy.

Empirical studies on the short-term transition to capital requirements generally find negative outcomes, as lending spreads rise and overall lending volumes fall.[50] Where banks hold higher capital to begin with, or use retained earnings to meet capital requirements, the negative effects on credit extension and the price of lending are less pronounced (Cohen and Scatigna 2016). Other factors such as bank specific factors (i.e. size, profitability and risk behaviour), competition within the banking sector, sovereign debt risk and market liquidity are also

[49] See for example FSB (2010), Berger and Bouwman (2013) and Caggiano and Calice (2011).

[50] MAG (2010), Slovik and Cournède (2011), and EU (2011) find small negative effects when estimating the likely impact of introducing Basel III IIF (2011) finds significantly larger impacts (3.2% of GDP for the developed economies and 7.5 million jobs forgone). Ex-post studies find mixed results Cohen and Scatigna (2016) find small impact on lending spreads. UK data suggest that higher capital requirements have reduced both domestic and cross-border lending (Aiyar, Calomiris and Wieladek 2016; Bridges et al. 2014; Noss and Toffano 2016).

important determinants (Valencia and Bolanos 2018). Studies using simulation models find strong impacts on the monetary policy transmission mechanism as macroprudential regulations reduce financial system leverage, in turn decreasing the responsiveness of banks to monetary policy changes .(.)(Cozzi et al. 2020).

From an already-elevated starting point, South African banks raised their capital ratios over the period of 2008–18. The regulatory capital to risk-weighted assets ratio increased from 13% to 16.6%, the tier 1 ratio increased from 11.2% to 15%, and the leverage ratio went from 5.7% to 8.5%, well above Basel III requirements.[51] Part of this reflected South Africa's stricter regulatory regime, but it also showed banks' desire to hold higher capital buffers due to expected difficulties with raising equity in the future, higher economic volatility and risks, or a desire to signal robustness vis-à-vis competitors (Borio and Zhu 2012; Repullo and Suarez 2013).

It seems clear that lending spreads on household mortgages increased after 2008, coinciding with the introduction of Basel III and rising capital ratios (Figure 15), although also reversing the squeeze in spreads observed in the 2000s.[52] This would suggest that macroprudential policy might have generated tighter policy conditions than desired. Inflation, however, remained close to 6% for most of the post-2008 period suggesting that monetary policy compensated for the tightening impact of macro-prudential policy on lending rates and allowed the policy stance to remain expansionary.

Banks have also faced higher liquidity costs, with the premium on liquidity rising by close to 1 percentage point from 2008 (Rapapali and Steenkamp 2019). This points to transition costs of moving from one regulatory benchmark to another, with the shift to higher standards imposing a short-term cost on the economy. To the extent that the new standards require less maturity mismatch (a key objective of the Net Stable Funding Ratio), then there has also likely been less long-term lending for socially desirable investments with longer pay-back periods.

Finally, regulations may have incentivised greater purchases of government debt to meet high-quality liquid-asset requirements. Government stock comprised 7.8% of bank assets at the end of 2019, up from 3.2% in 2008. Basel III, therefore, has supported fiscal funding directly, increasing demand and reducing the yields for government bonds, and indirectly has crowded out private financing. This has also increased the vulnerability of the financial system to fiscal risks.[53]

[51] Regulatory tier 1 capital to risk-weighted assets is the ratio of equity capital and retained earnings (core capital) to risk-weighted assets. Regulatory capital to risk-weighted assets includes tier 1 and tier 2 capital (revaluation reserves, undisclosed reserves, hybrid instruments, and subordinated term debt). Tier 2 capital is considered less secure.

[52] About 1% increase in the capital adequacy ratio is estimated to cause bank lending rates to increase by 0.4 percentage points (Havemann 2014) and is found to be equivalent to a 0.4 percentage points increase in the repo rate (Grobler and Smit 2014). Both studies estimate that GDP falls by about 0.07 percentage points.

[53] See Dell'Ariccia et al. (2018) for an explanation of how the sovereign affects the financial sector through the so called sovereign-bank nexus.

9 Policy coordination

Despite sustained, well-intentioned efforts to raise growth rates, fiscal policy in particular has been poorly targeted and insufficiently shaped by the supply problems besetting production. With the policy response to the COVID-19 pandemic needing financing, the pre-existing savings deficits mean that a successful macroeconomic policy must be time consistent to improve confidence and lower risk premia and bond yields.

The economic literature suggests that when risk premia are debt elastic, the optimal response to reach a stable equilibrium is for government to consolidate and monetary policy to become more expansionary. Bonam and Lukkezen (2019) extend the seminal model of Leeper (1991) by introducing risk premium dynamics that create a wedge between the risk free and bond rate. This increases the importance of short run deficits and requires greater coordination between monetary and fiscal policy.[54] The model, however, is a closed-economy model. Within an open economy framework, which is savings constrained, the need for fiscal consolidation and stronger coordination with monetary policy becomes even more important Corsetti et al. (2013) similarly finds that the optimal response to achieve equilibrium is for fiscal policy to consolidate. Applying this framework to South Africa, the monetary policy constraint is the economy's dependence on foreign savings, which limits the ability of the Reserve Bank to offset the impact of risk premium on credit spreads.

The short-term disinflationary effects of the COVID-19 pandemic on the economy plus global monetary policy easing have, in the meantime, created space for a temporary but aggressive monetary policy response despite the worse fiscal outlook. But to get more out of policy coordination, fiscal policy should move first, reducing risk premia and inflation expectations, dropping the neutral real rate, and allowing monetary policy to respond to weak growth. This improved co-ordination should depreciate the real exchange rate, reducing the need for external financing and improve macroeconomic stability.

A rules-based approach to revising fiscal targets, using both a stock variable—debt to GDP – and a flow variable such as a primary deficit target would improve policy credibility (IMF 2016). This should reduce risk premia, and the associated downward shift in the yield curve should in turn start the critical crowding-in of private investment.[55] The composition of spending can also be

[54] The model developed by Bonam and Lukkezen (2019) builds also on earlier literature on requirements for sustainable government debt and the implications for monetary and fiscal policy.

[55] Burger and Calitz (2020) argue that the consolidation path identified in the 2020 Supplementary Budget is too ambitions as it requires close to double the reduction in the primary deficit (as a share of GDP) achieved in a sample of emerging markets. There are two issues with their assessment. In their sample the consolidation is through tax and expenditure measures, whereas in the South African case, a large part of the decline in the primary deficit is simply driven by the recovery in nominal GDP and tax revenue following the lockdown measures. Secondly, they provide little detail on their assumptions such as the composition of debt issuance. One assumption, however, which is driving their result is for interest rates at 9%. Current government borrowing cost on new debt are around 6%, which reflects the composition of debt issuance. Assuming 9% interest rates rather than the actual 6% in the

more growth enhancing, with transparent targets for public investment and maintenance in education, health, and infrastructure. Similarly, tax policy can be reconfigured to boost productivity. The literature suggests that these are important components of successful consolidation periods (Alesina, Favero, and Giavazzi 2019; Burger and Calitz 2020; Molnar 2013).

Macroprudential policy should work more actively to support private long-term investment and in particular greener investment (Arndt, Loewald, and Makrelov 2020). The definitions of high-quality liquid assets should be reviewed and more financial instruments should be included. Longer and less liquid investment should not be penalised relative to sovereign bonds. More importantly, in the South African case, this can reduce financial stability risks by decreasing the exposure of banks to government bonds (Brunnermeier et al. 2016; Dell'Ariccia et al. 2018). Capital requirements should be calibrated so that lending rates do not dull the efficacy of monetary policy.

All of that should be supplemented by structural reforms. There is no shortage of evidence that South Africa is far from the best practice that is growth positive, creates jobs, and can unwind high levels of poverty and inequality (Duval and Furceri 2018). Effective reforms will also generate the space for expansionary macroeconomic policies to provide a short-term boost for growth and stronger long-term productivity growth.[56]

Gaspar et al. (2016) argue that macroeconomic and structural reform policies need to be comprehensive, consistent, and coordinated, especially when some of the policy tools are facing constraints.[57] And yet, pro-growth policy interventions have been limited and have lagged structural reforms in other emerging markets, while fiscal outcomes have rapidly worsened. The policy focus has almost exclusively been on stimulating demand for non-tradables and imports by appreciating the real exchange rate rather than increasing saving and investment (Loewald 2017). Persisting with this approach will exacerbate South Africa's internal and external imbalances.

The greatest gains for long-term potential growth are likely to come from boosting investment, in particular infrastructure spending, and reform that lifts labour productivity. These would include policy initiatives that improve the quality of South Africa's education and skills base, increase competition with a focus on network sectors that are dominated by state monopolies, transform the country's cities into engines for growth by leveraging the agglomeration gains

current year exacerbates the fiscal dynamics and requires higher primary deficits to reach the National Treasury Active Scenario Debt Target. More importantly, they do not take into account the endogenous relationship between debt and risk premia, highlighted in this paper. The National Treasury consolidation path can reduce risk premia and borrowing rates, requiring smaller primary deficits to offset the growth in debt service cost.

[56] See IMF (2015). Structural challenges can prevent the efficient allocation of resources and contribute to the build-up of imbalances; limit economic flexibility thus preventing timely adjustment to shocks; and constrain potential, and eventually actual, growth, which will undermine economic stability.

[57] Comprehensive refers to policy interventions across macro and micro policies in a way that these interventions reinforce each other. Policies are consistent when government sticks to its promises and policies are coordinated when they internalise the global economic environment.

from urbanisation, and rebuild the country's institutional quality.

10 Conclusion

Restoring South Africa's growth requires a comprehensive change in economic policy that targets major fiscal consolidation, a sustained shift in the composition of expenditure, lower inflation that allows monetary policy space, macroprudential policy that supports long-term private sector investment, and an ambitious and rapidly implemented structural reform agenda that targets higher productivity growth.

With the pandemic, policy faces the risk that ineffective or poor sequencing of policies becomes further entrenched, deepening already acute macro- and microeconomic vulnerabilities. Policy should concentrate on finding appropriately scaled external funding to deal with the pandemic, while moving quickly to deliver a credible fiscal consolidation that leverages a set of clear, credible, and confidence-enhancing fiscal targets to crowd-in the private sector and boost growth. Shifts in composition of spending, say toward long-term drivers of human capital growth, like modernised public health-care services, could be strengthened by a macroprudential policy that promotes longer term private investments with large positive externalities, such as greening the economy and creating new kinds of jobs.

We are not arguing for a less ambitious fiscal agenda, but one that is actually growth enhancing and mindful of what is possible to achieve with fiscal and monetary policies in a small open savings constrained economy.

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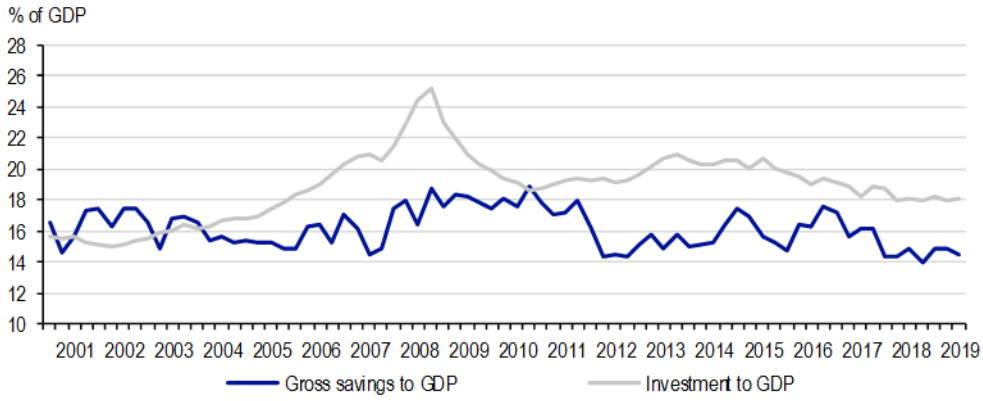
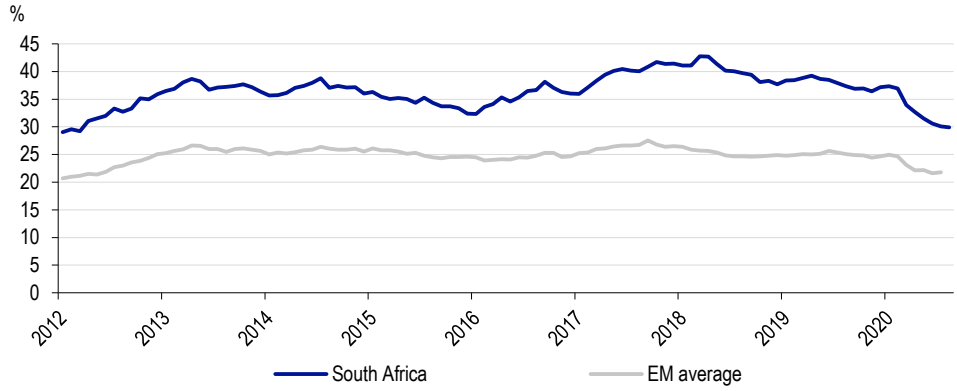
Figure 1: Gross savings and investment to GDP



Source: Statistics South Africa

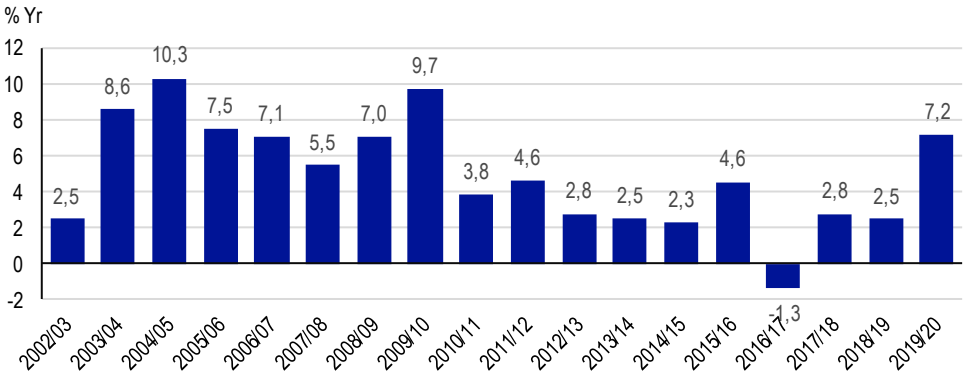
Figure 2: Foreign holdings of local currency debt[1]



Source: National Treasury, Bloomberg

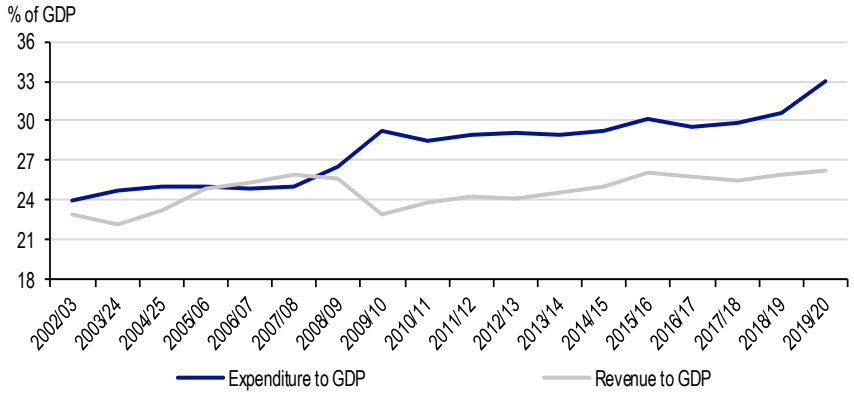
[1] The EM average comprises Brazil, Colombia, Czech Republic, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Poland, Russia, Thailand and Turkey.

Figure 3: Government expenditure in real terms



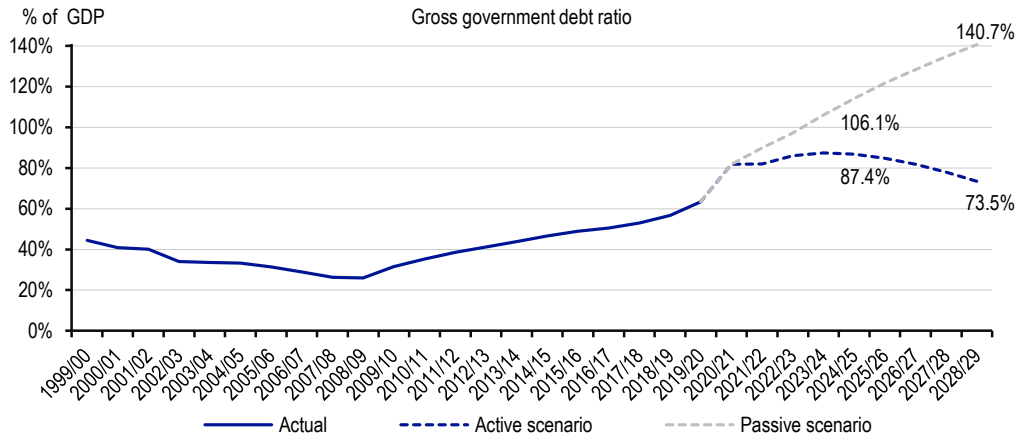
Source: National Treasury

Figure 4: Ratio of government revenue and expenditure to GDP



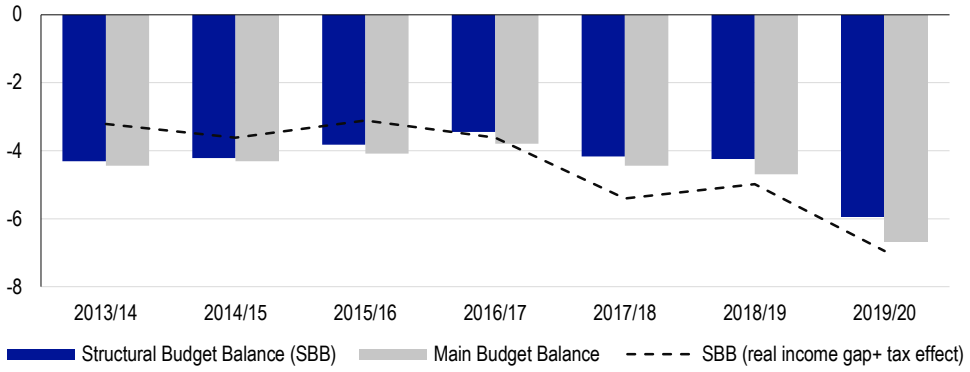
Source: National Treasury

Figure 5: Debt to GDP projections



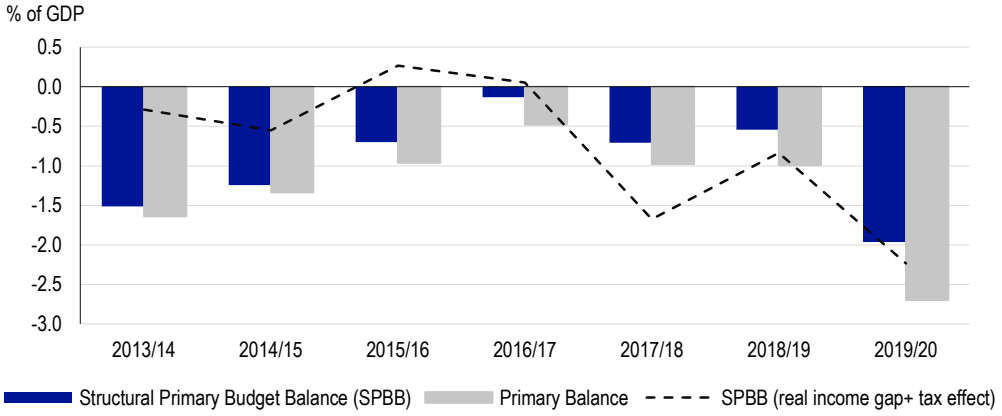
Source: National Treasury

Figure 6: Main budget balance and structural budget balance



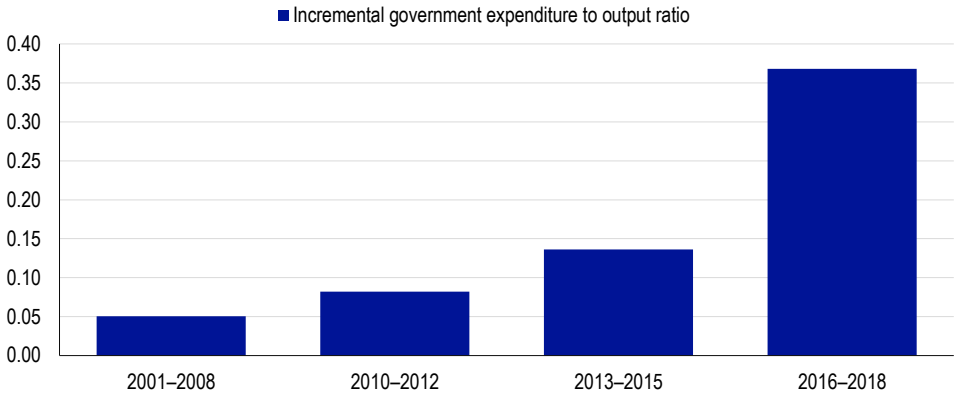
Source: National Treasury, SARB, and authors' own calculation

Figure 7: Primary balance and primary structural budget balance (adjusted for output gap, real income, and tax effects)



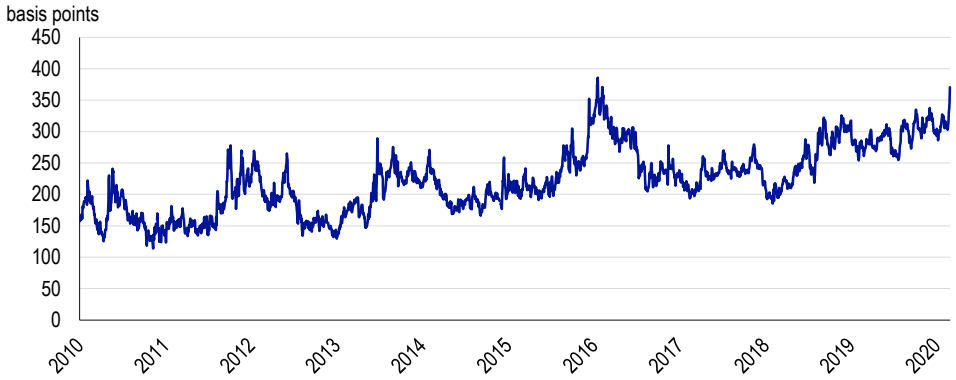
Source: National Treasury, SARB, and authors' own calculation

Figure 8: Government spending to growth



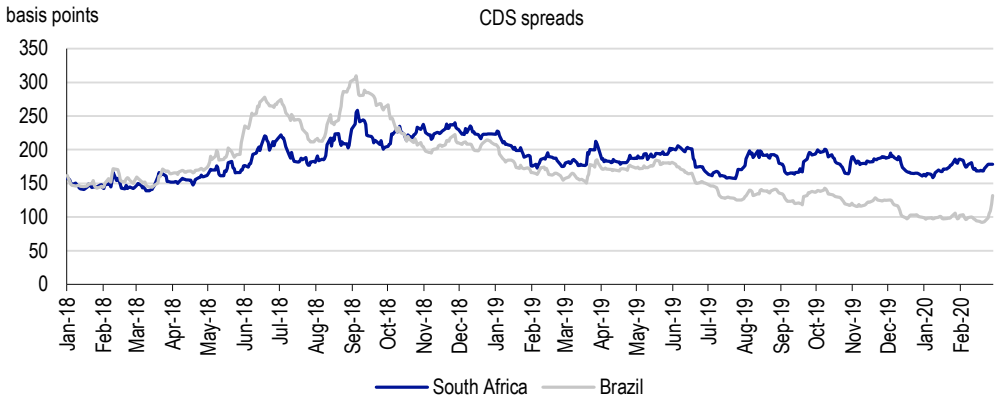
Source: Authors' own calculation

Figure 9: South Africa country risk (EMBI+ spread)



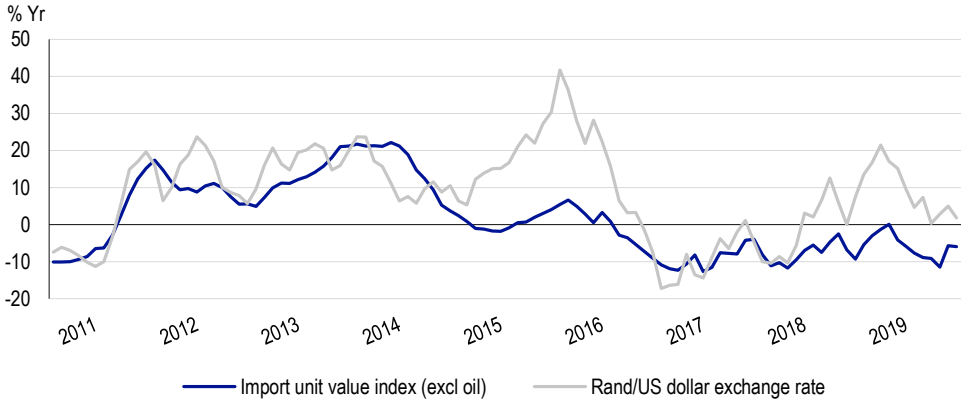
Source: JP Morgan

Figure 10: CDS spreads (South Africa versus Brazil)



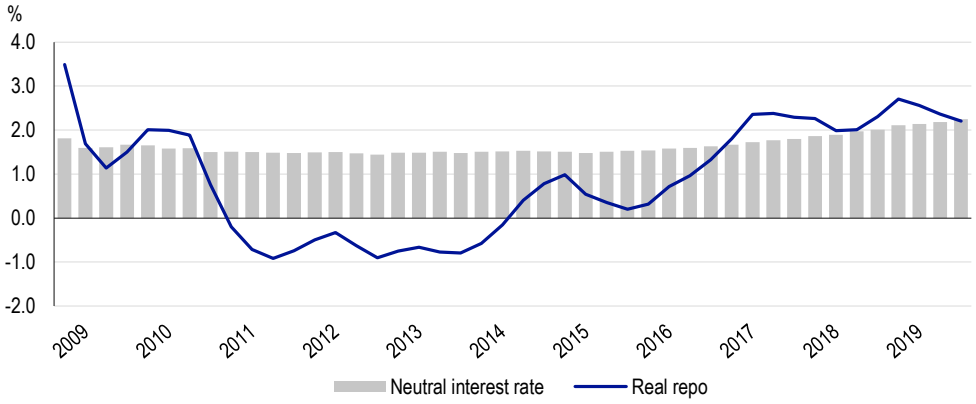
Source: Bloomberg

Figure 11: Import prices and the rand-dollar exchange rate



Source: Statistics South Africa, Bloomberg

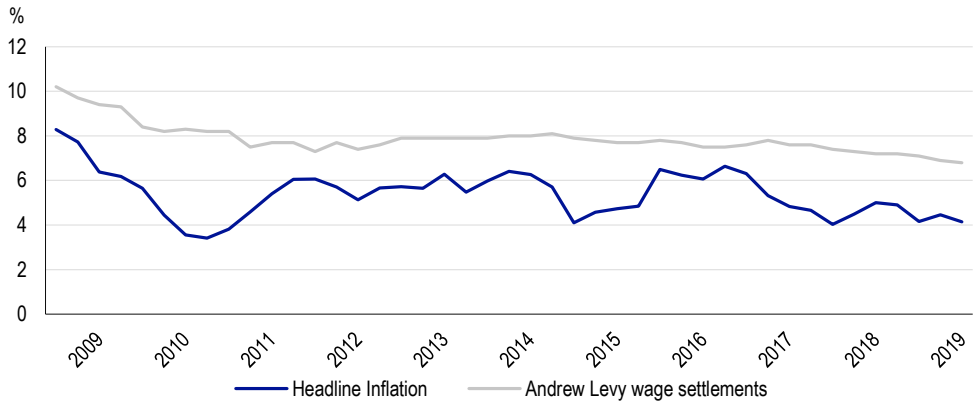
Figure 12: Real repo rate and the neutral interest rate



Source: SARB[2]

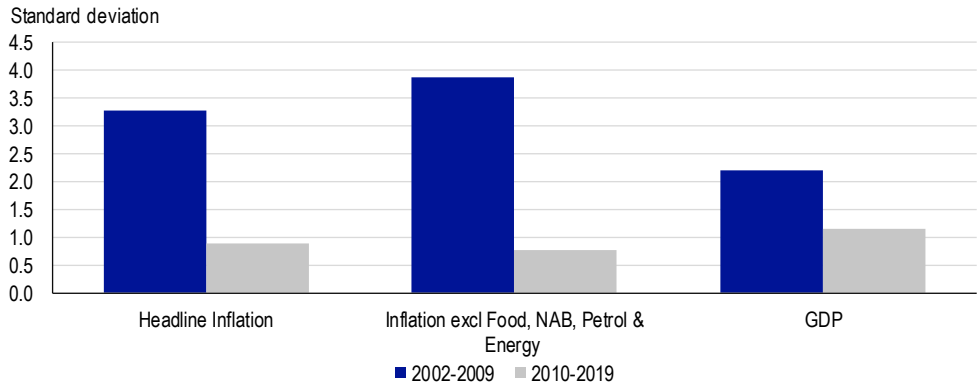
[2] The graph was originally presented in the October 2019 *Monetary Policy Review*. https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/9526/Monetary%20Policy%20Review%20%E2%80%93%20October%202019.pdf

Figure 13: Wage settlements and inflation



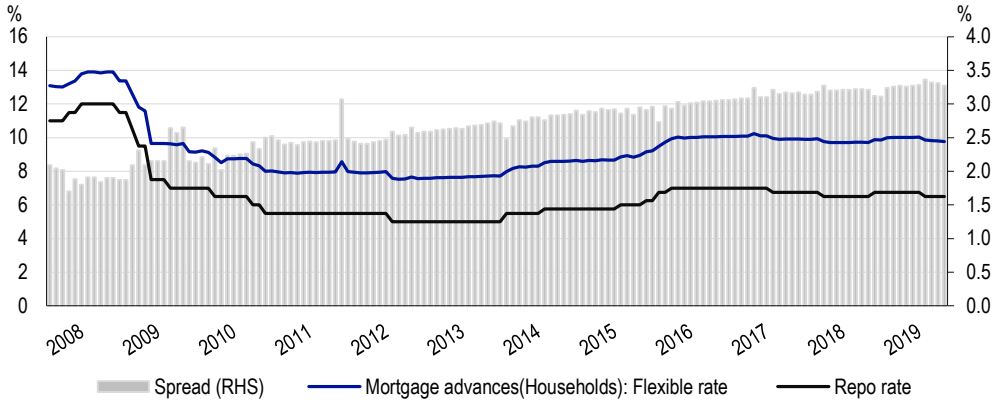
Source: Statistics South Africa, Andrew Levy

Figure 14: GDP and inflation volatility



Source: SARB and authors' own calculations

Figure 15: Lending spread



Source: SARB