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Fiscal anchors and sustainable fiscal policy

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WIDER Working Paper 2023/98

Fiscal anchors and sustainable fiscal policy

Krige Siebrits and Estian Calitz*

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Abstract: This paper discusses the rationale and options for a fiscal anchor for South Africa and its potential for restoring and maintaining fiscal sustainability. It argues that a well designed fiscal anchor can be useful in the current fiscal milieu, but notes that the popularity of fiscal rules belies an uneven record and doubts about their efficacy. In view of this, the paper warns against unrealistic expectations about the impact that rules-based fiscal policy-making might have and points out that a strengthened regime of transparency-based discretion should not be disregarded as an alternative mechanism to anchor fiscal expectations in the South African context. It also emphasizes the salience of an unwavering political commitment to fiscal discipline, irrespective of the details of the fiscal policy-making framework.

Key words: fiscal anchor, fiscal rules, fiscal policy, fiscal sustainability, South Africa

JEL classification: E02, E61, E63, H61

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1 Introduction

The introduction of a new fiscal anchor has been under consideration in South Africa for some time. Thus, the 2019 Budget Review claimed that the rolling ceiling on nominal main budget non-interest expenditure (which had been adopted in 2013) had anchored fiscal policy but added that ‘the National Treasury [was] investigating the feasibility of other measures to anchor fiscal sustainability, such as rules to protect the composition of spending and limit the pace of debt accumulation’ (National Treasury 2019: 29). The effects of the COVID-19 pandemic worsened the already vulnerable fiscal situation and heightened the need for institutional reforms and other stabilizing measures. The Letter of Intent that accompanied South Africa’s request for financial support from the International Monetary Fund (IMF) to mitigate the adverse economic effects of the pandemic therefore stated that ‘we are open to introducing a debt ceiling in addition to the nominal spending ceiling currently in place’ (National Treasury and South African Reserve Bank 2020: 6). The 2022 Budget Review reiterated the limited effectiveness of the expenditure ceiling and the Government’s intention to introduce a new fiscal anchor within the current MTEF period (National Treasury 2022: 28, 2). This paper discusses the rationale and options for a fiscal anchor for South Africa and its potential for restoring and maintaining fiscal sustainability. It argues that a well designed fiscal anchor can be useful in the current fiscal milieu, but warns that the popularity of fiscal rules belies an uneven record and widespread doubts about their effectiveness. In addition, the paper emphasizes the importance of an unwavering political commitment to fiscal discipline.

The remainder of this paper is structured as follows. Section 2 discusses various conceptual issues related to fiscal anchors, fiscal rules, and fiscal policy-making frameworks. Section 3 summarizes the argument for reliance on numerical fiscal rules, recent trends in their popularity, and the findings of empirical studies on their effectiveness. South Africa’s experience with fiscal rules is reviewed in Section 4. Against this backdrop, Section 5 comments on the strengths and weaknesses of some potential fiscal anchors and on other possible reforms of the South African fiscal policy-making framework. Section 6 provides concluding comments.

2 Conceptual issues

A very large body of writings now exists on fiscal anchors and other forms of fiscal rules. Writers have approached these topics from various angles and have not necessarily attached the same meanings to concepts. Hence, the purpose of this section is to define key concepts that feature prominently in Section 5 and elsewhere in the paper. Section 2.1 defines numerical fiscal rules, lists common forms of such rules, and outlines the relationship between fiscal rules and fiscal anchors. The distinction between fiscal rules and fiscal standards is outlined in Section 2.2. Another way of categorizing fiscal rules follows from the degrees to which they are supposed to limit the discretion of fiscal policy-makers. Section 2.3 introduces such categorizations by distinguishing between ‘hard rules’, ‘soft rules’, and flexible rules. Section 2.4 defines the broader term ‘fiscal policy-making frameworks’ and identifies their core components.

2.1 Fiscal rules and fiscal anchors

Kopits and Symansky (1998: 2) defined a fiscal rule as ‘a permanent restraint on fiscal policy, typically defined in terms of an indicator of overall fiscal performance’. Two aspects of this oft-cited definition are notable. First, the reference to an ‘indicator of overall fiscal performance’ suggests that it describes a numerical fiscal rule. The distinction between numerical and procedural

fiscal rules is revisited in Section 2.4. The second aspect, the meaning of the adjective ‘permanent’, is more contentious. Kopits and Symansky (1998: 2) argued that a bona fide fiscal rule should be ‘intended for application on a permanent basis by successive governments in a given country’ and that time-bound targets (such as those in fiscal adjustment programmes) do not satisfy their definition. More recent definitions (e.g. Davoodi et al. 2022: 5) have used the adjectives ‘lasting’ or ‘long-lasting’ instead, and some have classified shorter-term fiscal constraints as rules. Lledo et al. (2017: 8), for example, argued that a fiscal constraint should be binding for at least three years to be regarded as a rule. Be that as it may, the most common categories of numerical fiscal rules are the following:

- *Expenditure rules* cap the growth rates, GDP shares, or nominal or real levels of public spending aggregates such as current, primary, or total outlays. The fundamental goal of such rules is to curb growth in government spending in order to achieve a sustainable long-term debt-to-GDP ratio, given the tax capacity of an economy (Dullien et al. 2020: 11).
- *Revenue rules* specify upper or lower limits on levels or the GDP shares of tax or total government revenue or determine the use of revenues in excess of budgeted amounts. The aims of such rules include boosting revenue collection, preventing excessive tax burdens, and ensuring prudent use of windfall revenues (Schaechter 2012: 9). Revenue rules are the least common type of numerical fiscal rule.
- *Budget balance rules* impose limits on fiscal balances, expressed as ratios of GDP. Such limits are usually imposed on the overall balance (the difference between total government revenue and total government expenditure), the primary balance (the difference between the government’s total revenue and its non-interest expenditure, that is, the overall balance plus interest expenditure), the structural balance (the overall balance adjusted to eliminate the effects of the business cycle and, sometimes, once-off fiscal items as well), or the current balance (the difference between current government revenue and current government outlays). The main purpose of budget balance rules is to restrict public debt accumulation (Davoodi et al. 2022: 27); the current balance also has the objective of restricting borrowing to the financing of capital spending. It is customary to refer to the injunction to maintain current balance as the ‘golden rule’ of fiscal policy.
- *Public debt rules* prohibit borrowing from certain sources (typically the central bank) or limit the extent of the public debt, either in absolute terms or as a percentage of GDP.¹ Hence, the main purpose of such rules is to restore or preserve fiscal sustainability by limiting public debt accumulation.

Numerical fiscal rules vary in their coverage of components of the public sector. Rules applying to sub-national authorities and state-owned enterprises fall outside the scope of this paper, which focuses on national-level rules. The paper incorporates relevant lessons from the use of supranational fiscal rules in monetary unions, though.

The term ‘fiscal anchor’ refers to a constraint on fiscal outcomes or processes that is intended to influence public expectations about the future course of fiscal policy (Leeper 2009: 2). Although it is sometimes used as a synonym for any numerical fiscal rule, the term is increasingly reserved for rules used to influence expectations regarding overall fiscal objectives. Limits on the public debt-to-GDP ratio linked to the objectives of fiscal sustainability and intergenerational equity are by far the most common examples of such rules.

¹ The debts to which these rules apply do not usually include contingent liabilities such as government guarantees of the borrowings of subnational governments and state-owned enterprises.

2.2 Fiscal rules and fiscal standards

The distinction between rules and standards is well established in legal scholarship. Schlag's (1985: 381–83) explanation of this distinction revolved around criteria derived from the two components of legal directives: 'triggers' (which identify phenomena or events) and 'responses' (which require or authorize legal consequences when the phenomena or events manifest). He pointed out that legal rules combine hard empirical triggers with hard determinate responses, while legal standards combine soft evaluative triggers with soft guided responses.

Blanchard et al. (2021) applied this distinction in an article about fiscal governance in the European Union (EU). In this context, the requirement that a country should avoid an excessive public debt burden would constitute a pure fiscal standard, while an example of a pure rule would be the requirement that the public debt-to-GDP ratio should not exceed 60 per cent of GDP. Blanchard et al. (2021: 215–16) proposed a shift from rules to standards in fiscal policy-making in the EU, arguing that political and economic uncertainty as well as the complexity of debt sustainability assessment make fiscal rules inadequate tools for simultaneously preventing excessive debt accumulation and preserving sufficient fiscal space for countercyclical stabilization policy. They acknowledged, however, that effective adjudication and enforcement processes are requirements for successful standards-based fiscal policy-making. Perhaps for this reason, standards-based fiscal policy-making frameworks remain rare. That of New Zealand is a notable exception (see Blanchard et al. 2021: 216–17).

2.3 'Hard', 'soft', and flexible fiscal rules

As suggested above, rules can also be categorized in terms of the degrees to which they are supposed to limit the discretion of policy-makers. A basic distinction is made between 'hard rules' (tools for constraining the discretion of policy-makers, such as constitutional provisions that prohibit budget deficits and numerical rules that are binding for every annual budget) and 'soft rules' (non-binding signposts to enhance debate about fiscal policy-making and outcomes) (Debrun et al. 2007: 16). The notion of 'hard rules' is now associated most strongly with the constitutional political economy paradigm pioneered by Nobel Laureate James Buchanan (see, for example, Brennan and Buchanan 1985). This paradigm advocates binding limits on fiscal aggregates to restrain the so-called 'Leviathan' by constraining government expenditure growth and preventing budget deficits. Flexible fiscal rules have grown in popularity in contemporary macroeconomics. The reason for this is that comparative analyses have shown that activist rules (which specify different responses to different circumstances) generally tend to outperform passive rules (which require policy-makers to maintain a particular course of action in all circumstances) (Dellas and Tavlas 2022: 249). In the South African context, the case for flexible fiscal rules has been made by Burger and Jimmy (2006) and Burger and Marinkov (2012).

2.4 Fiscal policy-making frameworks

A country's fiscal policy-making framework (or fiscal policy-making regime) consists of all the institutions that structure fiscal policy-making processes. Apart from numerical fiscal rules, the following are elements of many fiscal policy-making frameworks:

- *Procedural fiscal rules* are the details of budget processes, that is, the arrangements that govern the formulation of budget proposals by executive branches of governments, the approval of budget proposals by legislatures, and the implementation of budget laws (Drazen 2004: 15). Procedural fiscal rules are also known as budget process rules.
- *Fiscal councils* are non-partisan agencies with monitoring and advisory tasks. These tasks include forecasting for fiscal policy-making purposes; advising policy-makers on fiscal

policy options; monitoring compliance with numerical rules; costing prospective policy initiatives; and analysing fiscal trends, their short-term macroeconomic context, and their long-term fiscal sustainability implications (Calmfors and Wren-Lewis 2011: 667–71; Debrun et al. 2013: 13–17). The Centraal Planbureau (CPB) in the Netherlands, the Congressional Budget Office in the United States, and the Office for Budget Responsibility in the United Kingdom are well known examples of fiscal councils. Davoodi et al. (2022: 29) classify the Parliamentary Budget Office in South Africa as a fiscal council, but it is a moot point whether it has been provided with adequate capacity to fulfil the above-mentioned functions.

- *Medium-term expenditure frameworks* (MTEFs) are rolling revenue and spending projections presented against the backdrop of economic and fiscal goals and the prospects of the economy (Calitz and Siebrits 2015: 374). The purposes of such frameworks are to enhance the transparency of budget processes, strengthen links between policy priorities and longer-term spending plans, and improve expenditure control. The medium-term expenditure frameworks of countries are closely linked to their budget-process rules. South Africa has been using a medium-term expenditure framework since 1998/99.
- *Fiscal responsibility laws* specify the medium-term paths of key fiscal aggregates, outline annual and medium-term strategies for achieving policy objectives, and establish frameworks for regular reporting on fiscal trends and auditing of fiscal information (Lienert 2010: 5). The main aim of fiscal responsibility laws is similar to that of fiscal councils, namely to make policy-makers more accountable by increasing the transparency of fiscal processes. South Africa’s Public Finance Management Act of 1999 exhibits many of the characteristics of fiscal responsibility laws.

A holistic perspective that considers the characteristics of and implications for the entire fiscal policy-making framework is essential when contemplating changes to numerical rules or any other elements of such regimes. Such a perspective suggests that there is no ideal fiscal policy-making framework for all countries. As Debrun et al. (2007a: 15–16) put it: ‘An array of institutional arrangements can potentially improve fiscal outcomes [...] The choice among available options would reflect the nature of the underlying distortions to fiscal behaviour, the extent of the resulting fiscal bias, and the broader political and institutional landscape of a country.’ Debrun et al. (2007a: 16) also pointed out that a combination of explicit political commitments (e.g. targets in annual budgets) and mechanisms to strengthen democratic accountability (e.g. medium-term expenditure frameworks and other transparency requirements) represents one end of the spectrum of feasible fiscal policy-making regimes. The other end consists of explicit ex ante boundaries of acceptable fiscal outcomes, that is, numerical fiscal rules. Such rules are increasingly combined with other accountability mechanisms or embedded in fiscal responsibility laws.

3 The status of rules-based fiscal policy-making

This section comments on three important aspects of rules-based fiscal policy-making. Section 3.1 summarizes views presented as justifications for numerical fiscal rules, while Section 3.2 outlines recent trends in their usage. The large body of empirical research into the efficacy of numerical fiscal rules is summarized in Section 3.3. This subsection also offers a brief synopsis of the current status of rules-based fiscal policy-making.

3.1 The case for fiscal policy rules

The powerful theoretical and practical arguments for rules-based fiscal policy-making are well known, and only a short summary will be provided in this subsection. Apart from concerns about

the size of public sectors emphasized by public choice theory and constitutional political economy, three considerations underpin the case for numerical fiscal rules.

The first is that numerical fiscal rules are essential for preventing maladies widely associated with discretionary fiscal policy-making. The vast majority of developing and industrial countries have experienced recurring fiscal deficits and rising public debt burdens since the early 1970s (Kumar and Ter-Minassian 2007: 1–2), and discretionary measures have often rendered fiscal policy procyclical by offsetting the effects of automatic fiscal stabilizers (Balassone and Kumar 2007: 20–24). Several reasons for a so-called ‘deficit bias’ in fiscal policy-making have been identified, including fiscal illusion and myopic behaviour by voters, political polarization and strategic behaviour by politicians, common pool problems that prevent beneficiaries from internalizing the full costs of government spending programmes, and dynamic time inconsistency problems (i.e. the inability of policy-makers to credibly commit themselves to optimal policies because of opportunities to attempt to exploit real or imagined trade-offs between policy goals) (Calmfors 2005: 14–20). The argument is that appropriate rules-based fiscal policy-making frameworks could mitigate such problems and safeguard fiscal sustainability.

A second consideration follows from theoretical ideas. Tenets of contemporary macroeconomic theory—such as the rational expectations assumption and the time inconsistency problem—imply that numerical rules can be credible commitment mechanisms that enhance the effectiveness of policies by enabling policy-makers to influence the expectations of economic agents (Leeper 2010: 3–5). While fiscal sustainability-based arguments tend to regard numerical rules as mechanisms that should be imposed on self-interested or incompetent fiscal decision-makers to prevent policy errors, expectations-based arguments maintain that it is in the interest of well intentioned fiscal authorities to voluntarily adopt and comply with rules because doing so would enhance the credibility and effectiveness of their actions.

Risks affecting fiscal policy-making in monetary unions constitute a third aspect of the case for numerical rules: the fiscal policies of some member states might impose negative spillover costs on the economies of others (see Fatás and Mihov 2003: 114–15). Direct macroeconomic spillovers arise when fluctuations in output caused by the fiscal policies of one member state are transmitted to others via trade and capital flows or other financial linkages; in addition, heavy borrowing by the governments of some member states could give rise to higher interest rates and, hence, heavier debt burdens throughout the monetary union. Another possibility is so-called ‘credibility spillovers’: the credibility of the commitment to price stability of the monetary union’s central bank would be jeopardized if it tries to bail out member states whose unsustainable budgetary policies have caused financial crises, either by tolerating more accommodative monetary policies or by monetizing their debts.

3.2 Salient trends in the usage of numerical fiscal rules

Numerical fiscal rules have been in existence for a very long time; Kopits (2001: 4) stated that most US states adopted current balance rules in the mid-19th century. Rules-based fiscal policy-making became a global phenomenon only in the late 20th century, though. Davoodi et al. (2022: 6) reported that the number of countries with such constraints increased from 9 in 1985 to 105 at the end of 2021. These ran the gamut from high-income to emerging market and developing countries. At the time, the two most common types of constraints were budget balance rules (used by 93 countries) and debt rules (used by 85 countries). Spending rules were in force in 55 countries, while 17 countries had revenue rules (Davoodi et al. 2002: 7).

An important concurrent development has been that a growing number of countries have come to rely on more than one fiscal rule. Table 1 shows that 15 countries had one rule in 2021, whereas

90 had two or more. The two most common framework types combined a debt rule with a budget balance rule (26 countries) or with a budget balance rule and an expenditure rule (35 countries).

Table 1: Components of rules-based fiscal policy-making frameworks (2021)

Rule or combination of rules	Countries
Expenditure rule	2
Debt rule	5
Budget balance rule	8
Subtotal	15
Revenue rule + Expenditure rule + Debt rule	1
Revenue rule + Debt rule	2
Expenditure rule + Debt rule	2
Revenue rule + Expenditure rule + Budget balance rule + Debt rule	5
Revenue rule + Budget balance rule + Debt rule	9
Expenditure rule + Budget balance rule	10
Budget balance rule + Debt rule	26
Expenditure rule + Budget balance rule + Debt rule	35
Subtotal	90
Total	105

Source: authors' construction based on Davoodi et al. (2022: Figure 4).

3.3 The effectiveness of numerical fiscal rules

The corpus of empirical studies on the efficacy of numerical fiscal rules has assumed voluminous proportions. This section does not offer a comprehensive survey of this body of work; instead, it draws on key findings and themes to provide pointers regarding the fiscal and macroeconomic effects that rules-based policy-making may have in the current fiscal environment in South Africa. Section 4, which discusses South Africa's own experience with such rules, augments its contents.

Empirical evidence suggests that the benefits of numerical fiscal rules should not be exaggerated. Table 2 shows that the general government gross debt burdens of most advanced economies with rules-based fiscal policy-making regimes have grown markedly since 2007. To be sure, these countries suffered two extraordinary shocks—the global financial crisis (GFC) and the COVID-19 pandemic—during this period. Nonetheless, the extent of these increases and the reality that few countries managed to reduce their public debt burdens between the two shocks indicate that rules-based policy-making is not a fail-safe method for avoiding or rectifying fiscal problems.

Table 2: General government gross debt burdens in selected advanced economies with fiscal rules (2007–2021)

Country	Percentage of GDP			
	2007	2009	2019	2021
Australia	9.7	16.6	46.7	57.6
France	64.5	79.0	97.4	112.6
Germany	64.2	73.2	58.9	68.6
Japan	173.0	198.8	236.4	255.4
Portugal	72.7	87.8	116.6	125.4
Singapore	87.8	101.7	127.8	147.7
Slovenia	22.8	34.5	65.4	74.5
Sweden	39.0	40.7	35.2	36.3
United Kingdom	41.6	63.1	84.5	108.1
United States	64.6	86.6	108.7	126.4

Source: authors' construction based on IMF (2023).

Three factors explain why numerical rules have often not constrained fiscal outcomes effectively. The first, which has been evident since the onset of the GFC, is that the effects of major shocks on GDP itself and on the revenue and spending sides of national budgets have sometimes made the consolidation efforts needed to ensure compliance with fiscal rules infeasible. In fact, one of the lessons of the GFC was that fiscal consolidation efforts during deep recessions can be self-defeating in the sense that their contractionary effects on GDP can prevent reversals of spikes in public debt ratios (De Long and Summers 2012). And in some cases, ill conceived fiscal consolidation efforts have hurt the longer-term growth potential of economies by reducing productive public investment spending (Guerguil et al. 2017: 190).

The second factor has been that the slumps caused by the GFC and the COVID-19 pandemic in many countries overwhelmed the capacity of monetary policy to provide a countercyclical stimulus (Blanchard et al. 2010; Romer 2022). Expansionary fiscal measures then became essential to support economic activity. Policy-makers often had to breach numerical limits to implement such measures, either by invoking escape clauses or by suspending rules. Thus, only 3 of the 27 EU member states never breached either the budget balance or public debt rules of the Stability and Growth Pact (SGP) from 2008 to 2010, while 16 were in violation of one or both rules in all three years and a further 6 in two years (Calmfors and Wren-Lewis 2011: 654). And in March 2020 the European Commission activated the SGP's general escape clause that allows temporary violations of the rules, provided that these do not jeopardize medium-term fiscal sustainability.

Breaches have not been limited to times of crisis, however, and this reality has constituted the third limit on the constraining ability of numerical fiscal rules. The experiences of EU countries are again instructive. Reuter (2015) calculated that 11 EU member states complied with their national fiscal rules approximately 50 per cent of the time from 1994 to 2012. Breaches of the supranational SGP rules have also been common. For example, Calmfors and Wren-Lewis (2011: 654) pointed out that the 27 EU countries infringed those budget balance and public debt rules in 107 out of a possible 258 country years between 1999 and 2010. Non-compliance with numerical rules has been widespread elsewhere as well. Nandelenga and Ellyne (2020) reported a compliance rate of just 54 per cent for 20 African countries from 1997 to 2016, while Ulloa-Suárez (2023) found that 14 Latin American and Caribbean countries achieved a compliance rate of only 63 per cent from 2000 to 2020, and Davoodi et al. (2020: 19) reported that a global sample of 90 countries breached their budget balance rules and public debt rules 42 per cent and 50 per cent of the time, respectively, from 2004 to 2021. Although some breaches of fiscal rules were permissible in terms of formal escape clauses, many occurred because rules were ignored or abandoned. In addition, policy-makers often used accounting tricks or manipulated fiscal and macroeconomic forecasts to circumvent constraints (see, for example, Beetsma et al. 2009; Frankel 2011; Von Hagen and Wolff 2006).

Nonetheless, many writings on numerical rules have reported positive effects. Several studies (Ayuso-i-Casals et al. 2007; Debrun and Kumar 2007a, 2007b; Marneffe et al. 2010) found that the national numerical rules of EU countries contributed to better cyclically adjusted primary balances and public debt-to-GDP ratios between 1990 and the onset of the GFC, while analyses of the effectiveness of these countries' public spending rules (Holm-Hadulla et al. 2011; Turrini 2008; Wierts 2008) also reported beneficial effects on fiscal outcomes. Such improved outcomes seemingly had positive credibility effects in the form of lower risk premia on sovereign debt (Badinger and Reuter 2017; Iara and Wolff 2014). These effects were strongest when countries not associated with a strong preference for fiscal prudence adopted strict new fiscal rules. Studies of developing countries (Berganza 2012; Brzozowski and Siwińska-Gorzelak 2010; Tapsoba 2012) have also suggested that fiscal rules have contributed to fiscal discipline and reduced volatility in

fiscal aggregates.² Hence, Reuter (2015) concluded that numerical rules seem to be effective even when compliance is erratic. Two explanations have been offered for this conclusion. First, even with irregular compliance, numerical rules may reduce the frequency of destabilizing discretionary actions by contributing to the maintenance of adequate fiscal buffers (Eyraud et al. 2018c: 12). Moreover, the existence of such rules may pressurize policy-makers to respond to breaches by steering fiscal aggregates back towards reference values (Reuter 2015: 77).

Questions have been raised about the causal significance of the relationships between fiscal rules and outcomes reported in these and other studies, though. As was pointed out by Kumar et al. (2009: 19–20), many such studies may have been plagued by endogeneity issues and other biases:

[B]oth fiscal rules and improved fiscal performance could be affected by omitted determinants of fiscal behavior [...] [S]tandard estimation would attribute the impact of these omitted variables to rules, causing a statistical bias. Stronger political commitment to fiscal discipline, for instance, could lead to both an improvement in performance and the adoption of rules [...] A related issue is that of reverse causality—improved fiscal performance leading to the adoption of rules, perhaps to ‘lock in’ gains in consolidation, or as a signal of authorities’ commitment.

Heinemann et al. (2014), for example, showed that European countries with stronger national fiscal rules benefited from lower risk premia on government bonds from 1993 to 2008. Various proxies for the fiscal preferences of countries were, however, also strongly correlated with the strength of their fiscal rules; in fact, the results obtained after including these proxies in a regression model suggested that the observed link between fiscal rules and risk premia might be explained almost entirely by the possibility that countries with a strong preference for fiscal stability also adopt strong rules.

Further confirmation of the seriousness of such problems came from a meta-regression analysis of 30 empirical studies by Heinemann et al. (2018): their results implied that the differences in the fiscal outcomes of countries with and without fiscal rules are no longer statistically significant at conventional levels when allowance is made for endogeneity problems. Caselli and Reynaud (2020) reached a similar conclusion in a panel-data analysis of the effects of fiscal rules on budget balances in 142 countries from 1985 to 2015. In conjunction with the growing evidence of considerable non-compliance with numerical rules and their failure to prevent the fiscal problems that have plagued many countries since the GFC, these findings have weakened the near-consensus that had existed about the beneficial effects of rules-based fiscal policy-making before the onset of the GFC. In fact, two proponents of such regimes stated that ‘rules-based fiscal policy has been harshly criticized to the point of facing an existential crisis’ (Debrun and Jonung 2019: 143). Blanchard et al.’s (2021) proposal that the EU should replace its rules-based fiscal governance model with one based on fiscal standards was a salient example of this reassessment of the usefulness of fiscal rules. This reassessment may well have been a positive development: the potential of such rules was probably exaggerated for a time, and insufficient attention was paid to factors that influence their effectiveness. Furthermore, the ability of rules to guide policy may have been compromised by their increasing complexity and the shift to multiple constraints, which sometimes caused inconsistency between individual rules and conflicts between policy goals (see Eyraud et al. 2018c: 27, 28).

² Bova et al. (2014), however, showed that rules have not necessarily made fiscal policy in developing countries less procyclical.

Recent writings have provided more nuanced assessments of numerical rules that also point to various factors influencing their effectiveness. Eyraud et al. (2018c: 16–19), for example, opined that well designed rules could have significant beneficial effects when embedded in sound fiscal policy-making regimes and backed by strong political commitment.³ In contrast, poorly designed rules tend to cause three types of costs (see Eyraud et al. 2018c: 9). The first are those associated with procyclical fiscal outcomes, which arise when numerical rules fail to prevent fiscal laxity during economic upswings but spur fiscal tightening during recessions. Secondly, ill judged rules often weaken the quality of the public finances by prompting inappropriate changes to the composition of government expenditure. The tendency among policy-makers to prevent the breaching of rules by reducing productive investment expenditures while maintaining politically sensitive current spending programmes of lesser economic merit is a case in point. A third form of costs arises when poorly designed rules create incentives for transparency-reducing phenomena such as off-budget transactions and accounting tricks. Flawed financial management systems and weak political commitment to rules facilitate such undesirable responses.

There are several dimensions to the design of fiscal rules, including the selection and calibration of rules, their coverage of government entities and targeted fiscal aggregates, the incorporation of escape clauses and correction mechanisms, and the inclusion of supporting arrangements (among which other elements of fiscal policy-making frameworks loom large). Several papers offer useful guidance to policy-makers when it comes to these matters (see, for example, Eyraud et al. 2018a; Eyraud et al. 2018b; Schaechter et al. 2012: 17–24). It has become clear, however, that complex trade-offs arise whenever such guidance is used to craft rules with desirable properties. This problem was illustrated by the review of the evolution of rules-based fiscal policy-making by Eyraud et al. (2018c: 9–11). Arguing that the GFC had put numerical rules under considerable strain and markedly influenced international best practice, they referred to fiscal rules adopted before and after that event as ‘first-generation’ and ‘second-generation’ rules, respectively. Their categorization of the differences between these two groups of constraints revolved around three properties of good fiscal rules: simplicity, flexibility, and enforceability. Debrun and Jonung (2019: 142–44) offered useful descriptions of these properties. A simple rule is clear to policy-makers and easy to explain to members of the public and financial market participants, whereas a flexible rule is contingent and avoids frequent clashes with other policy objectives. Enforceability, in turn, refers to the scope for ‘compelling observance of or compliance with a law, rules, or obligation’ (Debrun and Jonung 2019: 142).

According to Eyraud et al. (2018c: 9), first-generation rules were simple and flexible but lacked enforceability. Such rules usually took very simple forms—for example, as balanced budget rules—but, with the passage of time, it became evident that the pursuit of the macroeconomic stabilization objectives of fiscal policy were undermined by the rigidity of such rules. This led to reforms to make rules more flexible, including the adoption of escape clauses and adjustments for cyclical fluctuations. These reforms, however, made rules more complex and further diluted their enforceability. Reflecting these lessons of experience, the properties of enforceability and flexibility have featured more prominently in the design of second-generation rules (Eyraud et al. 2018c: 10). Escape clauses have become more common and more elaborate, for example, while preservation of the working of automatic stabilizers has been prioritized more widely. Key reforms to make rules more enforceable have included the establishment of fiscal councils with monitoring mandates (Hodge et al. 2018: 11) and the adoption of correction mechanisms (which specify pathways to restore compliance when numerical rules are breached). The enforceability of rules

³ Caselli and Reynaud (2020), who used an instrumental variable strategy to address endogeneity concerns, also emphasized the link between the design and the effectiveness of numerical rules.

has also been enhanced by switches to rules targeting more controllable fiscal aggregates (e.g. spending rules) and rules linked more closely to the efforts of policy-makers (e.g. rules that correct for cyclical effects on fiscal outcomes). These steps have made rules significantly more complex, however, and this may have contributed to the relatively high levels of non-compliance referred to in Section 3.3.

In sum, developments in recent decades have revealed what Debrun and Jonung (2019: 145) labelled a ‘trilemma’: only two of the three properties of enforceability, flexibility, and simplicity can be incorporated simultaneously in the design of a fiscal rule.⁴ Other attempts to use the characteristics of good rules to provide guidance for the design of fiscal policy-making regimes (e.g. Kopits and Symansky 1998: 18–20) have also emphasized the inevitability of trade-offs.

Other determinants of the efficacy of numerical rules have also been studied. Thus, the extent to which rules contribute to better fiscal outcomes has been linked to budget transparency (Gootjes and De Haan 2022) and the attainment of a minimum threshold of government efficiency (Bergman and Hutchison 2015), among other things. The discussion of policy options for South Africa in Section 5 returns to some of the issues raised in this subsection.

4 South Africa’s experience with numerical fiscal rules

South Africa’s experience with numerical fiscal rules confirms the relevance of several of the themes raised in Section 3.3.

From 1910 to 1976, South Africa used a dual-budget system that required the fiscal authorities to finance current spending from tax and other current revenues via the Revenue Account and capital spending from loans via the Loan Account (Siebrits and Calitz 2004: 778). The purpose of this system was to maintain current balance, that is, equality between the current revenues and current expenditures of government. This *de facto* current balance rule should have given effect to the so-called ‘golden rule of fiscal policy’, namely that governments should not borrow to finance current outlays. The system initially worked well but, over time, its ability to constrain fiscal outcomes was increasingly eroded by actions that circumvented its intent—notably transfers between the accounts that were sometimes enabled by reclassification of budgetary items (Heyns 1991: 387). The growing popularity of the Keynesian approach to fiscal policy-making, which emphasized discretionary countercyclical measures, further undermined the dual-budget system. It was eventually scrapped in 1976 after the Franszen Commission of Inquiry had recommended the adoption of a more explicitly Keynesian approach by the South African fiscal authorities. South Africa’s experience with the dual-budget system therefore confirmed that fiscal rules are vulnerable to circumvention and non-observance, especially when policy-making approaches change in response to new economic challenges or other developments.

South Africa did not have *bona fide* numerical fiscal rules from 1976 until 2012. Medium-term fiscal targets were announced from time to time and pursued with varying degrees of vigour, though.⁵ The fiscal principles announced in the Long-Term Fiscal and Monetary Strategy of 1985 had no legal status and contributed little to fiscal prudence in the turbulent second half of the

⁴ This conclusion motivated Debrun and Jonung’s (2019) suggestion that attempts to design enforceable rules mimicking optimal fiscal policy be jettisoned in favour of simple reputation-based rules monitored by independent fiscal councils.

⁵ As was pointed out in Section 2.1, some economists classify medium-term targets as rules, whereas others do not.

1980s. From 1996 to 2001, the medium-term objectives of the Growth, Employment, and Redistribution (GEAR) Strategy guided fiscal policy-making. These included a stepwise reduction in the budget deficit to 3 per cent of GDP, reduction of general government consumption expenditure as a percentage of GDP, gradual elimination of general government dissaving, and maintenance of the total tax burden at 25 per cent of GDP (Siebrits and Calitz 2004: 779). Other major GEAR goals were not achieved (including the ambitious economic growth and job creation targets), but the fiscal objectives provided the contours of a successful attempt to reduce budget deficits and the public debt burden (Calitz and Siebrits 2003: 59). Given that the technocratic origins of GEAR made it highly controversial and that the targets lacked a legal basis, its effectiveness as a fiscal consolidation strategy underscored the importance of political commitment to any form of fiscal constraints.

In 2013, the National Treasury introduced rolling ceilings for nominal main budget non-interest expenditure. The ceilings are soft rules that lack a legal basis and enforcement mechanisms, yet, viewed from an accounting perspective, these rules have worked well: actual expenditure was below the ceilings until the fiscal authorities had to take exceptional measures in response to the COVID-19 pandemic. This did not prevent the worsening of fiscal imbalances over the past decade, though (National Treasury 2022: 28). These outcomes demonstrated that exogenous factors—such as the government revenue effects of weak GDP growth and interference in the running of the tax collection agency—can render a fiscal rule ineffective even when compliance is exemplary. While underscoring the importance of selecting policy-making institutions that can mitigate the root causes of fiscal imbalances, South Africa’s recent experience with government expenditure ceilings suggests that numerical rules do not exhaust the menu of available options.

5 Policy implications for South Africa

This section discusses possible institutional reforms to improve fiscal outcomes in South Africa. While focusing on the potential of fiscal anchors, it also comments on the roles that the other elements of fiscal policy-making regimes listed in Section 2.4 may play as alternatives or complements to numerical rules.

Budget documents have listed several reasons for considering such reforms. These have ranged from limiting public debt accumulation to preventing the re-emergence of an unsustainable public debt path and securing the long-term sustainability of fiscal policy (National Treasury 2019: 29, 2022: 28, 4). Moreover, as Sections 3.3 and 3.1 showed, the introduction of appropriate policy-making institutions may function as a credible commitment to fiscal discipline that could reduce risk premia and influence expectations in ways that make fiscal policy more effective. The question then arises whether numerical rules are suitable mechanisms for securing such benefits.

With this question as a backdrop, the rest of this section comments on two options for reforming the South African fiscal policy-making regime. Section 5.1 focuses on the potential of a new fiscal anchor in the form of a numerical rule, whereas Section 5.2 discusses the alternative of strengthening the current framework without adopting new rules. These options are representative of the two poles of the spectrum of fiscal policy-making regimes identified by Debrun et al. (2007a: 16): explicit ex ante boundaries of acceptable fiscal outcomes, and a combination of explicit political commitments and mechanisms to strengthen democratic accountability.

5.1 A new fiscal anchor?

The references to fiscal anchors in official documents have mentioned envisaged outcomes (such as limiting the tempo of public debt accumulation and securing the long-term sustainability of fiscal policy) but have not explicated the mechanisms by means of which rules may contribute to their attainment. Writings on numerical rules have suggested two such mechanisms (Eyraud et al. 2018c: 7). The first (and more obvious) is that effective rules might constrain the actions of policy-makers in ways that foster the attainment of sound fiscal outcomes. The second mechanism follows from the argument that the adoption of rules represents a credible commitment to fiscal prudence that would lower risk premia and influence economic outcomes positively via their effects of the expectations of economic agents. The two mechanisms may well be linked in the sense that the credibility effects of the adoption of numerical rules would in all likelihood be shaped by their deemed ability to constrain policy-makers.

The case for new fiscal anchors in South Africa at this juncture seems less than compelling if it hinges on the perceived effectiveness of these mechanisms. The commitment benefits of such a step would depend heavily on the behavioural responses of economic actors (which, in turn, are likely to be shaped by the perceived credibility of the constraints). The global debates about the effects of fiscal consolidation have shown how hard it is to measure—let alone predict—such responses to policy announcements (see Okeke et al. 2021).⁶ In South Africa, the sources of concern about future fiscal outcomes include uncertainty about the growth prospects of the economy and the tax base; the demands on the national budget of state-owned enterprises, local authorities, and public servants; and the costs of mooted initiatives such as a basic income grant system and a national health insurance scheme. Fiscal rules may help policy-makers to manage the budgetary effects of these factors. Given the existence of such uncertainties, however, it is a moot point whether expectations would be affected strongly enough by the introduction of rules to cause large drops in risk premia or marked increases in private consumption and investment.

Section 3.3 listed three factors that undermine the ability of numerical rules to constrain fiscal outcomes: the negative effects of economic shocks on the public finances, the need to respond to such shocks by implementing countercyclical measures (especially when monetary policy cannot deal with their effects on its own), and deliberate violation of rules. Policy-makers cannot control the occurrence of major economic shocks, and it can be costly in economic and political terms to refrain from responding to such disturbances. While numerical rules and the other elements of a fiscal policy-making framework can be designed to raise the political costs of wilful non-compliance, the empirical evidence reviewed in Section 3.3 suggests that breach-proof rules are yet to be devised. When conditions make that feasible, consistent compliance ultimately hinges on ‘political buy-in’ (Eyraud et al. 2018c: 8), which amounts to strong commitment to the rules by the fiscal authorities, the entire government (including the head of state), and perhaps the electorate as well.⁷ Recent budget documents have suggested that there is support for numerical rules within National Treasury, but it is not clear whether full political ‘buy-in’ exists or could be obtained.

It follows that unrealistic expectations about the immediate and longer-term benefits of adopting fiscal anchors in South Africa right now should be avoided. Well designed rules may enable fiscal policy-makers with sufficient political support to soften the negative effects of economic shocks

⁶ The size of fiscal multiplier effects is a key aspect of such debates. Ramey (2019) provides a good discussion of salient methodological issues and empirical findings regarding fiscal multipliers.

⁷ Feld and Reuter (2021: 10) list public acceptance and support among the factors that may have contributed to the apparent success of Germany’s debt brake as a mechanism to reduce the country’s debt burden from 2009 to 2019. They argue that such support probably raises the reputational and electoral costs of breaching rules for politicians.

by building fiscal space during normal times. But the international evidence reviewed in Section 3.3 and South Africa's experience since the eruption of the GFC indicate that no rule (or set of rules) can fully safeguard a country from the fiscal imbalances caused by such shocks. Furthermore, the evidence suggests that it is impossible to design a rules-based framework that would prevent irresponsible fiscal decisions by future policy-makers or their political principals. Hence, Section 5.2 argues that a fiscal framework described elsewhere as 'transparency-based discretion' should not be disregarded as a possible alternative to rules-based policy-making in South Africa. If South African policy-makers opt for an institutional framework based on a fiscal anchor instead, various design-related issues would arise. The rest of this subsection comments on such issues.

Section 3.3 pointed out that existing writings on fiscal policy-making institutions provide guidance for avoiding common design mistakes. The list below identifies an interrelated set of considerations that should inform the design of such a regime for South Africa and comments on their implications:⁸

- *Consideration 1: Ability to anchor expectations.* As was pointed out in Section 3.1, one of the most important roles of numerical rules is to anchor economic actors' expectations about the future course of fiscal policy. A rule targeting a fiscal aggregate that directly affects debt sustainability (such as an upper limit on the public debt-to-GDP ratio) would best meet this requirement, but limits on total government expenditure or the conventional budget balance might reinforce its anchoring function. The credibility of a rule would be critical for its ability to anchor expectations. Factors that affect the credibility of a rule include its clarity, perceptions about its durability, the realism of its calibration, the scope for circumvention, and the degree of political commitment to compliance and to fiscal prudence in general. Credible correction mechanisms can also enhance the ability of especially debt rules to anchor expectations.
- *Consideration 2: Implications for macroeconomic stabilization policy.* Such implications matter in a general sense because of the importance of the stabilization function of fiscal policy, but also of the durability of rules: those that leave scant scope for countercyclical measures tend to become unpopular when economic conditions require such interventions. Hence, a good rule should reduce volatility in economic activity or, at least, not aggravate it. This implies that it should not prevent discretionary countercyclical changes to taxes or government spending or the operation of automatic fiscal stabilizers. Simple limits on current, primary, or overall budget balances do not satisfy this criterion. Although it is possible to mitigate this problem by imposing limits on cyclically adjusted or structural budget balances, the resulting reliance on potential—as opposed to actual—output as the denominator of targeted fiscal aggregates would complicate the implementation of a rule. It would also undermine the credibility of a budget balance limit by making it harder to understand, monitor, and verify. Government expenditure rules have the advantage that they do not prevent the operation of automatic fiscal stabilizers on the revenue side of the budget. But such rules often exert procyclical effects when defined in terms of the government expenditure-to-GDP ratio, because they limit spending growth to GDP growth. In contrast, limits on levels and growth rates of government expenditure tend to support macroeconomic stabilization because they can constrain spending during boom

⁸ Reviews of the properties of good rules (e.g. Eyraud et al. 2018b: 2; Kopits and Symansky 1998: 18–20) informed the selection of these considerations. Section 2.1 pointed out that revenue rules are the least common rules. Moreover, they are used more often to boost revenues or to limit the overall tax burden than for fiscal sustainability or macroeconomic stabilization purposes. Hence, this section focuses on debt rules, budget balance rules, and expenditure rules. The comments about the strengths and weaknesses of specific types of fiscal rules draw on Eyraud et al. (2018b: 4–9).

periods. Escape clauses—which define exceptional circumstances during which temporary breaches of limits are allowed and provide guidelines for handling those—can further enhance the scope for countercyclical interventions in rules-based fiscal regimes.⁹

- *Consideration 3: Simplicity.* The simplicity of a rule is important at two levels. Viewed from the perspective of fiscal policy-makers, simplicity makes a rule easier to understand and apply, as well as more credible in the sense that it facilitates explanation of its nature and effects to financial market participants and the general public. Key aspects of simplicity include clear definitions and reasonable degrees of predictability of relevant aggregates, as well as guidance for the formulation and implementation of annual budgets. Simplicity considerations therefore weaken the case for rules that require policy-makers to estimate potential output and other concepts subject to contestation and extensive measurement error (such as cyclically adjusted and structural budget balance rules). To be sure, such simplicity often comes at the cost of reduced flexibility: compared with a cyclically adjusted budget balance rule, for example, a limit on the conventional budget balance provides less scope for macroeconomic stabilization measures. The clarity and credibility benefits of simple fiscal rules also matter to financial market participants and the general public. An additional consideration for members of these groups is that better understanding of a rule makes it easier to hold policy-makers accountable for their actions.
- *Consideration 4: The controllability of the targeted fiscal aggregate.* To effectively constrain fiscal outcomes and be a credible anchor for expectations, the targeted aggregate should be linked directly to the chosen policy goal and largely under the control of policy-makers. It was suggested earlier that a debt rule would meet the first of these requirements if the policy goal is fiscal sustainability, while a government spending rule and a budget balance rule could supplement it. Ceteris paribus, a limit on the level of government expenditure constitutes the most controllable fiscal rule.¹⁰ Targeted fiscal aggregates defined as ratios of GDP and those that are linked to tax revenue (e.g. budget balance-to-GDP ratios and the public debt-to-GDP ratio) are less controllable bases for numerical fiscal rules. While the fiscal authorities can determine the resources of the tax collection agency, the structure of the tax system, statutory tax rates, and exemptions and deductions, actual tax revenue is also influenced by the levels of economic growth, inflation, and tax compliance. Other aspects of the design of a numerical rule, such as the breadth of its coverage of the targeted aggregate and of government entities, also affect its controllability. These, in turn, are shaped by the details of systems of intergovernmental fiscal relations and the degree of control over extra-budgetary entities and state-owned enterprises, inter alia.
- *Consideration 5: Prudence.* A rule should incentivize prudent fiscal policy-making. The high incidence of non-compliance noted in Section 3.3 has confirmed that numerical fiscal rules are often not self-enforcing. Rules therefore cannot constrain fiscal outcomes effectively (and cannot be credible) unless mechanisms exist that incentivize policy-makers to maintain fiscal discipline. This means that it should be costly to tamper with rules or to

⁹ Before the rational expectations revolution in macroeconomics and the emergence of new classical macroeconomics, debates often pitted Keynesians, who advocated activist stabilization policies and discretionary policy regimes, against monetarists, who supported non-activist policy approaches underpinned by rules-based regimes (see, for example, Argy 1988: 147–60). The fulcrum of such debates was the choice between discretionary and rules-based policy-making regimes, not choices among specific types of fiscal policy rules. Such debates are now rare, in part because few macroeconomists regard rules-based policy-making as incompatible with the stabilization role of fiscal policy.

¹⁰ Of course, government spending is never fully under the control of the fiscal policy-makers in South Africa because of factors such as the legal obligations to pay interest on the public debt and to give progressive realization to certain constitutional rights. Other factors that limit the controllability of government spending include the reality that wage agreements are negotiated with public sector unions after the budget is tabled in the legislature and the difficulty of resisting or accommodating expenditures associated with natural disasters and other unforeseen events.

breach them often. It is obviously difficult to compel sovereign governments to obey rules; as Eyraud et al. (2018b: 24) put it: ‘the notion of credible enforcement is largely illusory [...] Self-imposed sanctions are unlikely to be implemented by policymakers’. For governments, the most worrying effects of breaching numerical rules may well be the costs associated with losing the confidence of financial market participants (such as higher risk premia and restricted access to market financing) and of the electorate. Because neither lenders nor voters would necessarily impose such costs soon enough to prevent the emergence of fiscal problems, some writings on fiscal rules (e.g. Eyraud et al. 2018c: 22) have been propagating supplementary correction mechanisms to restore compliance when rules are breached.¹¹ While correction mechanisms can be added to most numerical rules, their effects on the credibility of public debt rules adopted to anchor expectations could be particularly useful. It should be noted that all numerical fiscal rules could incentivize undesirable practices to attain compliance by stealth. For example, compliance with spending rules might be feigned by ‘creative accounting’ practices such as cash-flow manipulation, fraudulent financial management practices, transferring responsibilities to subnational governments or state-owned enterprises, and using off-budget transactions. Careful design of numerical rules can reduce the likelihood of such practices, but other elements of fiscal policy-making frameworks—such as transparency-enhancing institutions and budget process rules—may play important complementary roles.

These considerations indicate that all numerical rules have strengths and weaknesses and confirm that trade-offs are inevitable when rules-based fiscal policy-making frameworks are designed and used. When considering such issues, the assumption or expectation that more rules would guarantee a better policy-making framework and better fiscal outcomes should be eschewed. The falseness of this assumption was shown clearly by the experiences of member states of the European Union, where successive reforms of fiscal governance structures created complex mixtures of national and supranational fiscal rules that have been widely criticized for their lack of effectiveness (see, for example, Beetsma and Larch 2019; Blanchard et al. 2021; Darvas et al. 2018). Publications by the IMF (e.g. Eyraud et al. 2018b: 3–4, 2018c: 21–22) have also identified risks of using several rules simultaneously and have stressed the benefits of parsimony in the design of fiscal policy-making regimes. Accordingly, such publications have suggested a relatively simple rules-based framework centred on a fiscal anchor (see Eyraud et al. 2018b: 3, 2018c: 20). The first element of this framework is a limit on the public debt-to-GDP ratio calibrated to maintain fiscal sustainability. Because the main aim of this limit is to influence medium-term expectations, it is not binding on each budget. The second element consists of operational rules that provide policy-makers with short-term guidance and enable them to communicate the fiscal stance to the financial markets and the public at large. These rules, which could take the form of limits on government spending and budget balances, are binding for annual budgets.

On the face of it, this suggestion constitutes a commendably simple framework for anchoring expectations about fiscal sustainability in South Africa and elsewhere. Yet it does not avoid trade-offs and other complications altogether. Eyraud et al. (2018c: 23) acknowledged that its simplicity may imply insufficient flexibility and argued that it may be enhanced by provisions such as escape clauses. Although such transparency about conditions under which rules may be breached should make it more credible, it remains pertinent to consider whether the anchoring purpose of the debt rule would not be undermined by its non-binding nature. If that is the case, it may well be necessary to add a correction mechanism that strengthens the perceived capacity of the rule to limit public

¹¹ The ‘debt brakes’ of Germany and Switzerland are examples of such mechanisms to correct fiscal imbalances. For discussions of the rules of these two countries, see Merrifield and Poulson (2017: 116–24).

debt accumulation. A more fundamental issue relates to the inherent complexity of fiscal sustainability assessment, which grounded Blanchard et al.'s (2021) unease about reliance on numerical rules in the EU context. They stressed that 'no single, time-country-invariant magic debt or deficit number' can underpin sustainability assessment, which is essentially a probabilistic exercise (Blanchard et al. 2021: 209).

None of these issues makes rules-based fiscal policy-making infeasible or undesirable for South Africa. They do point to some of the difficulties that switching to such an approach would bring, however, and policy-makers should be well aware of them before embarking on that course.

5.2 Transparency-based discretion

Writing before the introduction of a nominal expenditure ceiling, Siebrits and Calitz (2004: 781) described South Africa's fiscal policy-making regime as one of 'transparency-based discretion'. The bedrock of this regime was the Public Finance Management Act (PFMA) of 1999, which closely resembles a fiscal responsibility law. It imparted a high degree of transparency to fiscal policy-making by prescribing regular reporting on the public finances, independent auditing and supervision of financial control systems, and annual disclosure of the fiscal authorities' longer-term objectives and views about future trends in fiscal policy. Accordingly, Article 28 stipulates that all national and provincial budgets must contain multi-year projections. The introduction of the Medium-Term Expenditure Framework (MTEF)—which takes the form of three-year rolling projections for the revenues and expenditures of the national and provincial governments, accompanied by explanations of the overall fiscal and macroeconomic policy stances—gave effect to this article of the Act. Another important aspect of the PFMA is the requirement that the fiscal authorities disclose the macroeconomic projections on which budget estimates are based.

The Fiscal Affairs Department of the IMF (2018: 1) defined fiscal transparency as 'clarity, reliability, frequency, timeliness, and relevance of public fiscal reporting and [...] openness of the information available to the public about the government's fiscal policymaking process'. While Section 3.3 referred to empirical evidence suggesting that a high degree of fiscal transparency is an important determinant of the effectiveness of numerical rules, it is also a potentially vital element of fiscal policy-making regimes without such constraints. In regimes of this nature, transparency expands the availability of information that could enable voters and bond market participants to hold fiscal policy-makers accountable for their actions. That is the reason why Debrun et al. (2007a: 6) refer to them as combinations of explicit political commitments and mechanisms to strengthen democratic accountability.

Transparency-based discretion worked well in South Africa until the onset of the GFC and should not be omitted from the menu of longer-term options for structuring the country's fiscal policy-making regime. Compared with a rules-based framework (even one with escape clauses), a regime of transparency-based discretion provides policy-makers with more flexibility to respond to economic conditions. Furthermore, such a regime provides a structured set-up for achieving a core objective of modern macroeconomic policy, namely anchoring of the expectations of economic actors via clear communication of the goals and outcomes of fiscal policy (see, for example, Leeper 2009, 2010). Two objections could be raised against reliance on transparency-based discretion, though. The first is that the adoption of numerical rules may be seen as a more credible commitment to fiscal prudence. This matters because the benefits of such commitments (such as lower risk premia) may depend on the perceived credibility of the institutional reforms. Given the salience of this consideration in the current South African milieu, a realistic medium-term fiscal consolidation plan with clear targets may be a way to reap such benefits while conserving the longer-term flexibility offered by a regime of transparency-based discretion.

A second objection might be that transparency-based discretion would be unable to constrain fiscal outcomes adequately to prevent periodic imbalances. While this argument is not without merit, Section 3.3 showed that the constraining powers of numerical rules are also limited. In fact, it should be clear from developments since the eruption of the GFC that no fiscal policy-making regime offers complete protection from severe fiscal imbalances. Still, if South Africa opts to return to a regime of transparency-based discretion, the efficacy of the existing institutions (such as the PFMA and the MTEF) may be enhanced by the adoption of two additional elements.

The first element that could be considered is one or more fiscal standards—that is, statements ‘of general objectives, coupled with a process for assessing whether [...] policies meet the standard, drawing on all relevant information’ (Blanchard et al. 2021: 198). The process aspect is a crucial part of this definition: bona fide enhancement of transparency would require a legally entrenched requirement that policy-makers disclose at regular intervals their interpretation of each goal and explain the implications for its attainment of the current policy stance. Mere statements of objectives or policy-making principles—such as that in New Zealand’s Fiscal Responsibility Act of 1994 that the fiscal authorities should ‘achieve and maintain prudent public debt levels’ (Blanchard et al. 2021: 217)—would not provide sufficient guidance to policy-makers and would be too vague to anchor the expectations of other economic actors. A process-backed standard relating to the management of the public debt could complement existing transparency-related elements of the fiscal policy-making regime in South Africa by expanding the availability of information and the quality of debates about fiscal policy. Such a standard could be accompanied by another that obligates the authorities to formulate and implement a fiscal consolidation plan whenever the public debt-to-GDP ratio reaches a predetermined level. This would amount to a standard-based version of the correction mechanisms that are increasingly touted as core aspects of the enforcement of numerical rules (see Eyraud et al. 2018c: 22).

The second element that could raise the functioning of transparency-based discretion in South Africa is independent assessment of the goals and outcomes of fiscal policy. Although academic and private sector economists as well as international organizations have been assessing these aspects of fiscal policy for many years, a formal structure might enhance the visibility and influence of such work. Internationally, fiscal councils have become an increasingly popular vehicle for this purpose. Davoodi et al. (2022: 10–11) reported that the number of countries with fiscal councils doubled between 2010 and 2021, by which time such organizations existed in 48 countries other than South Africa. Almost all of them undertook *ex ante* analyses of budget proposals and their fiscal sustainability implications or *ex post* comparisons of fiscal objectives and outcomes.¹² Although much has been written about the potential and design of and country experiences with fiscal councils (see, for example, Debrun et al. 2009; Von Trapp et al. 2015), scant evidence of their influence on fiscal outcomes exists. However, two econometric studies (Beetsma et al. 2019; Debrun and Kinda 2014) reported positive effects when fiscal councils had sufficient resources to fulfil their mandates, guaranteed access to relevant information, and sufficient independence from political interference. A detailed discussion of the options for strengthening the independent assessment of fiscal policy in the South African context falls outside the scope of this paper. Suffice it to say that consideration would be required of the design issues identified in statistical analyses as well as the full spectrum of options, which range from the creation of a new body to the repurposing of existing ones (e.g. the Financial and Fiscal Commission or the Parliamentary

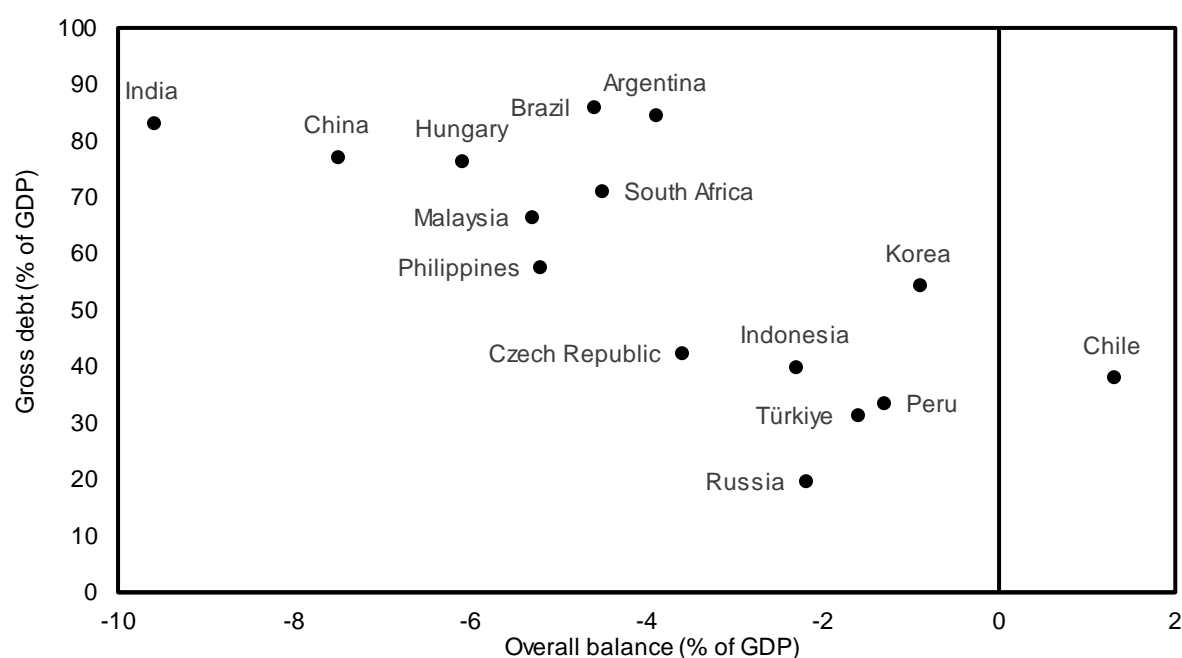
¹² Section 2.4 pointed out that fiscal councils also perform various other tasks, which include monitoring compliance with numerical rules, advising policy-makers on fiscal policy options, and costing new budget programmes.

Budget Office), part-time committees of experts¹³ and regular public hearings under the auspices of standing committees of the legislature.¹⁴

6 Conclusion and recommendations

The comparisons of South Africa's current fiscal situation with those of selected peer countries (Figure 1) and other countries in sub-Saharan Africa (Figure 2) are useful starting points for outlining the conclusions of this paper. It is evident that the fiscal positions of both groups of countries vary markedly; and comparisons of their economic structures and politico-economic features would have revealed similar divergence. This suggests that a one-size-fits-all approach that recommends the adoption of a common set of fiscal rules by all of them is bound to fail. While South African policy-makers can learn from international empirical evidence on the effectiveness of fiscal rules and country experiences with rules-based fiscal policy-making, popular ideas should not be adopted without careful consideration of their appropriateness in the local context.

Figure 1: The fiscal position of the South African general government: a comparison with selected peer countries (2022)

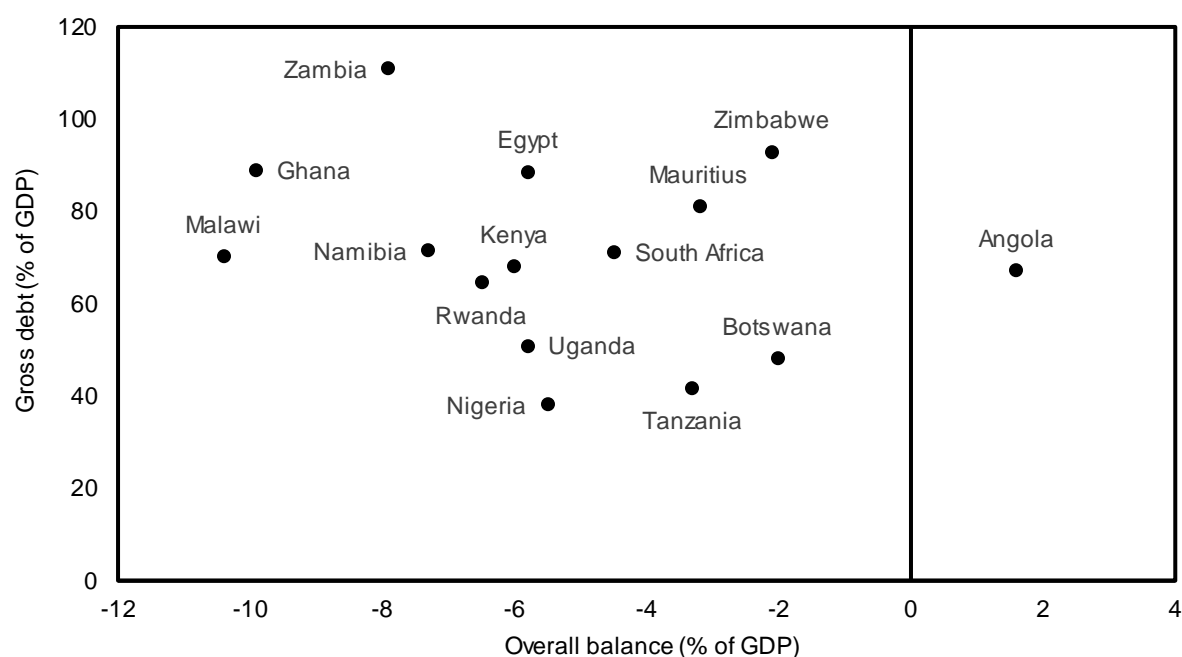


Source: authors' illustration based on IMF (2023: 70, 76, 78, 84).

¹³ The Advisory Board of the German Stability Council is an example of such an arrangement. The Board consists of one representative each of the German Bundesbank, the German Council of Economic Experts, and the research institutes that prepare the economic forecasts that serve as reference points for those of the German federal government, as well as six experts appointed for periods of five years. The Stability Council (which comprises the Federal Ministers of Finance and Economic Affairs and the Finance Ministers of the Länder) itself appoints four of these experts, while the other two are appointed by the national associations of local authorities and the national organizations of the social security funds.

¹⁴ Calitz et al. (2016) proposed such public hearings as an alternative to a fiscal council in a paper that discussed mechanisms to improve the accuracy of fiscal projections in South Africa.

Figure 2: The fiscal position of the South African general government: a comparison with selected SSA countries (2022)



Note: the data for Zambia are for 2021.

Source: authors' illustration based on IMF (2023: 78, 84, 86, 90).

This paper shows that South Africa has at least two options as far as institutional reforms to improve fiscal policy-making are concerned: a rules-based approach centred on a debt anchor, and transparency-based discretion. The evidence suggests that rules-based approaches can be effective under a demanding set of conditions: strong political 'buy-in' should exist; the rules and other aspects of the fiscal policy-making framework should be well designed; and fiscal outcomes should not be derailed by extreme economic instability. Under such conditions, rules can enable policy-makers with strong political support to build enough fiscal space during normal times to manage economic shocks better. Numerical fiscal rules often fail, however—sometimes because of non-observance by policy-makers and sometimes for reasons beyond their control. It has also become clear that rules-based fiscal policy-making is difficult even with careful design and committed implementation. Hence, it may well be unrealistic to expect new fiscal rules to bring about major improvements in fiscal outcomes in the current South African environment of slow economic growth and strong demands for more government spending.

Given these considerations, this paper argues that transparency-based discretion should not be disregarded as an alternative to rules-based policy-making. Such a fiscal policy-making framework offers more flexibility, and its focus on the clear communication of fiscal goals and outcomes makes it well suited for anchoring the expectations of economic agents. Moreover, South Africa already has key elements of transparency-based discretion in place and achieved good results with those institutions before the GFC. Augmented by appropriate fiscal standards as well as structures for independent assessment of fiscal policy, such a framework could be as effective for anchoring expectations as one based on numerical rules. Of course, adoption of an approach centred on fiscal standards would not diminish the importance of strong commitment to the chosen regime by fiscal policy-makers and the political leadership of the country in general.

Ultimately, views about appropriate fiscal outcomes as well as the goals of fiscal policy institutions (such as enhancing the credibility of a medium-term fiscal consolidation effort or maintaining fiscal sustainability in the longer run) should determine the choice between a rules-based fiscal policy-

making framework and one based on discretion. The details of the institutional framework should be derived from such fundamental considerations, taking account of socio-political realities and governance and technocratic competencies. If the main objective is fiscal consolidation, for example, various aspects of and factors shaped by the institutional framework seem to matter, including sound fiscal rules or binding medium-term targets, the existence of independent fiscal institutions, timely and accurate macroeconomic and fiscal statistics, and adequate coordination across levels of governments (especially in highly decentralized countries) (Herrero 2022: 160).

As has been pointed out repeatedly by the National Treasury, the first priority for policy-makers should be to regain fiscal sustainability. Politico-economic considerations and the context within which South Africa's fiscal outcomes have deteriorated to their present state should be considered when thought is given to introducing new institutions to attain that goal. Given that the South African economy has experienced two large exogenous shocks (the GFC and the COVID-19 pandemic) that have contributed to a deterioration in economic performance accompanied by social and political tensions, hard rules may well not be politically acceptable and perhaps not functional either. A more pragmatic approach with a higher probability of success might be to set and pursue feasible time-bound goals¹⁵ while building on the existing transparency-focused elements to further strengthen the overall fiscal policy-making framework. If workable structures for strengthening the independent assessment of fiscal policy can be created in this manner, the flexibility embodied in fiscal standards will not necessarily undermine credibility. Once sustainability is achieved, fiscal rules may well be more credible and politically acceptable, should they still be desired.

References

- Argy, V. (1988). 'A Post-War History of the Rules versus Discretion Debate'. *Banca Nazionale del Lavoro Quarterly Review*, 165: 147–77.
- Ayuso-i-Casals, J., D. Gonzalez Hernandez, L. Moulin, and A. Turrini (2007). 'Beyond the SGP: Features and Effects of EU National-Level Fiscal Rules'. In 'Fiscal Policy: Current Issues and Challenges' (Proceedings of the Bank of Italy workshop, Perugia, 29–31 March). <https://doi.org/10.2139/ssrn.2004450>
- Badinger, H., and W.H. Reuter (2017). 'The Case for Fiscal Rules'. *Economic Modelling*, 60: 334–43. <https://econpapers.repec.org/scripts/redir.pf?u=https%3A%2F%2Fdoi.org%2F10.1016%252Fj.econmod.2016.09.028>
- Balassone, F., and M.S. Kumar (2007). 'Cyclicality of Fiscal Policy'. In M.S. Kumar and T. Ter-Minassian (eds), *Promoting Fiscal Discipline*. Washington, DC: The International Monetary Fund. <https://doi.org/10.5089/9781589066090.071>
- Beetsma, R.M.W.J., and M. Larch (2019). 'EU Fiscal Rules: Further Reform or Better Implementation?'. Amsterdam Centre for European Studies Research Paper 2019/02. <https://doi.org/10.2139/ssrn.3406750>
- Beetsma, R.M.W.J., M. Giuliodori, and P. Wierts (2009). 'Planning to Cheat: EU Fiscal Policy in Real Time'. *Economic Policy*, 24(60): 753–804. <https://doi.org/10.1111/j.1468-0327.2009.00230.x>

¹⁵ Burger and Calitz's (2021: 21) proposal for adopting a ceiling for the public debt of 100 per cent of GDP, which was formulated in the context of the fiscal situation at the time, was an example of such a goal.

- Beetsma, R.M.W.J., X. Debrun, X. Fang, Y. Kim, V. Lledó, S. Mbaye, and X. Zhang (2019). 'Independent Fiscal Councils: Recent Trends and Performance'. *European Journal of Political Economy*, 57(2): 53–69. <https://doi.org/10.1016/j.ejpoleco.2018.07.004>
- Berganza, J.C. (2012). 'Fiscal Rules in Latin America: A Survey'. Bank of Spain Occasional Paper 1208. Madrid: Bank of Spain. <https://doi.org/10.2139/ssrn.2174415>
- Bergman, U.M., and M. Hutchison (2015). 'Economic Stabilization in the Post-Crisis World: Are Fiscal Rules the Answer?'. *Journal of International Money and Finance*, 52: 82–101. <https://doi.org/10.1016/j.jimonfin.2014.11.014>
- Blanchard, O.J., G. Dell'Ariccia, and P. Mauro. 2010. 'Rethinking Macroeconomic Policy'. *Journal of Money, Credit and Banking*, 42(Supplement 1): 199–215. <https://doi.org/10.1111/j.1538-4616.2010.00334.x>
- Blanchard, O.J., A. Leandro, and J. Zettelmeyer (2021). 'Redesigning EU Fiscal Rules: from Rules to Standards'. *Economic Policy*, 36(106): 195–236. <https://doi.org/10.1093/epolic/eiab003>
- Bova, E., N. Carcenac, and M. Guerguil (2014). 'Fiscal Rules and the Procyclicality of Fiscal Policy in the Developing World'. IMF Working Paper 14/122. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781498305525.001>
- Brennan, G., and J.M. Buchanan (1985). *The Reason of Rules*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511895937>
- Brzozowski, M., and J. Siwińska-Gorzela (2010). 'The Impact of Fiscal Rules on Fiscal Policy Volatility'. *Journal of Applied Economics*, 13(2): 205–31. [https://doi.org/10.1016/S1514-0326\(10\)60010-4](https://doi.org/10.1016/S1514-0326(10)60010-4)
- Burger, P., and E. Calitz. 2021. 'Covid-19, Economic Growth and South African Fiscal Policy'. *South African Journal of Economics*, 89(1): 3–24. <https://doi.org/10.1111/saje.12270>
- Burger, P., and C. Jimmy (2006). 'Should South Africa have a Fiscal Rule?'. *South African Journal of Economics*, 74(4): 642–69. <https://doi.org/10.1111/j.1813-6982.2006.00092.x>
- Burger, P., and M. Marinkov (2012). 'Fiscal Rules and Regime-Dependent Fiscal Reaction Functions: the South African Case'. *OECD Journal on Budgeting*, 12(1): 1–29. <https://doi.org/10.1787/budget-12-5k9czxjth7tg>
- Calitz, E., and F.K. Siebrits (2003). 'Fiscal Policy in the 1990s'. *South African Journal of Economic History*, 18(1/2): 50–75. <https://doi.org/10.1080/10113430309511154>
- Calitz, E., and F.K. Siebrits (2015). 'Fiscal Policy'. In E. Calitz, F.K. Siebrits, and T.J. Steenekamp (eds), *Public Economics*, 7th Edition. Cape Town: Oxford University Press.
- Calitz, E., F.K. Siebrits, and I. Stuart (2016). 'Enhancing the Accuracy of Fiscal Projections in South Africa'. *South African Journal of Economic and Management Sciences*, 19(3): 330–43. <https://doi.org/10.17159/2222-3436/2016/v19n3a1>
- Calmfors, L. (2005). 'What Remains of the Stability Pact and What Next?'. Report 8. Stockholm: Swedish Institute for European Policy Studies.
- Calmfors, L., and S. Wren-Lewis (2011). 'What Should Fiscal Councils Do?'. *Economic Policy*, 26(68): 649–95. <https://doi.org/10.1111/j.1468-0327.2011.00273.x>
- Caselli, F., and J. Reynaud (2020). 'Do Fiscal Rules Cause Better Fiscal Balances? A New Instrumental Variable Strategy'. *European Journal of Political Economy*, 63: 1–16. <https://doi.org/10.1016/j.ejpoleco.2020.101873>
- Darvas, Z., P. Martin, and X. Ragot (2018). 'European Fiscal Rules Require a Major Overhaul'. *Notes du conseil d'analyse économique*, 47(2): 1–12. <https://doi.org/10.3917/ncae.047.0001>
- Davoodi, H.R., P. Elger, A. Fotiou, D. Garcia-Macia, X. Han, A. Lagerborg, W.R. Lam, and P. Medas (2022). 'Fiscal Rules and Fiscal Councils: Recent Trends and Performance during the Pandemic'. IMF Working Paper 22/11. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9798400200472.001>

- Debrun, X., and T. Kinda (2014). ‘Strengthening Post-Crisis Fiscal Credibility: Fiscal Councils on the Rise – a New Dataset’. IMF Working Paper 14/58. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781475516135.001>
- Debrun, X., and M.S. Kumar (2007a). ‘The Discipline-Enhancing Role of Fiscal Institutions: Theory and Empirical Evidence’. IMF Working Paper 07/171. Washington, DC: International Monetary Fund. <https://doi.org/10.2139/ssrn.1007920>
- Debrun, X., and M.S. Kumar (2007b). ‘Fiscal Rules, Fiscal Councils and All That: Commitment Devices, Signaling Tools or Smokescreens?’. SSRN (29 March). <https://doi.org/10.2139/ssrn.2004371>
- Debrun, X., and L. Jonung (2019). ‘Under Threat: Rules-based Fiscal Policy and How to Preserve It’. *European Journal of Political Economy*, 57: 142–57. <https://doi.org/10.1016/j.ejpoleco.2018.09.001>
- Debrun, X., D. Hauner, and M.S. Kumar (2007). ‘Discretion, Institutions, and Fiscal Discipline’. In M.S. Kumar and T. Ter-Minassian (eds), *Promoting Fiscal Discipline*. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781589066090.071>
- Debrun, X., D. Hauner, and M.S. Kumar (2009). ‘Independent Fiscal Agencies’. *Journal of Economic Surveys*, 23(1): 44–81. <https://doi.org/10.1111/j.1467-6419.2008.00556.x>
- Debrun, X., T. Kinda, T. Curristine, L. Eyraud, J. Harris, and J. Seiwald (2013). ‘The Functions and Impact of Fiscal Councils’. IMF Policy Paper. Washington, DC: International Monetary Fund.
- Dellas, H., and G.S. Tavlás (2022). ‘On the Evolution of the Rules versus Discretion Debate’. *Journal of Economic Perspectives*, 36(3): 245–60. <https://doi.org/10.1257/jep.36.3.245>
- De Long, J.B., and L.H. Summers (2012). ‘Fiscal Policy in a Depressed Economy’. *Brookings Papers on Economic Activity*, 2012(1): 233–97. <https://doi.org/10.1353/eca.2012.0000>
- Drazen, A. (2004). ‘Fiscal Rules from a Political Economy Perspective’. In G. Kopits (ed.), *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis and Prospects*. Basingstoke: Palgrave Macmillan. <https://doi.org/10.1057/9781137001573>
- Dullien, S., C. Paetz, A. Watt, and S. Watzka (2020). ‘Proposals for a Reform of the EU’s Fiscal Rules and Economic Governance’. IMK Report 159. Düsseldorf: Hans-Böckler-Stiftung.
- Eyraud, L., A. Baum, A. Hodge, M. Jarmuzek, Y. Kim, S. Mbaye, and E. Ture (2018a). ‘How to Calibrate Fiscal Rules’. Fiscal Policy How To Notes 8. Washington, DC: International Monetary Fund.
- Eyraud, L., V. Lledo, P. Dudine, and A. Alva (2018b). ‘How to Select Fiscal Rules’. Fiscal Policy How To Notes 9. Washington, DC: International Monetary Fund.
- Eyraud, L., X. Debrun, A. Hodge, V. Lledó, and C. Pattillo (2018c). ‘Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability’. IMF Discussion Note 18/04. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781484350683.006>
- Fatás, A., and I. Mihov (2003). ‘On Constraining Fiscal Policy Discretion in EMU’. *Oxford Review of Economic Policy*, 19(1): 112–31. <https://doi.org/10.1093/oxrep/19.1.112>
- Feld, L.P., and W.H. Reuter (2021). ‘The German “Debt Brake”: Success Factors and Challenges’. Freiburg Discussion Papers on Constitutional Economics 21/10. Freiburg: Albert Ludwig University (Walter Eucken Institute).
- Frankel, J.A. (2011). ‘Over-Optimism in Forecasts by Official Budget Agencies and Its Implications’. *Oxford Review of Economic Policy*, 27(4): 536–62. <https://doi.org/10.3386/w17239>
- Gootjes, B., J. de Haan (2022). ‘Do Fiscal Rules need Budget Transparency to be Effective?’. *European Journal of Political Economy*, 75: 1–23. <https://doi.org/10.1016/j.ejpoleco.2022.102210>
- Guerguil, M., P. Mandon, and R. Tapsoba (2017). ‘Flexible Fiscal Rules and Countercyclical Fiscal Policy’. *Journal of Macroeconomics*, 52: 189–220. <http://dx.doi.org/10.1016/j.jmacro.2017.04.007>
- Heinemann, F., S. Osterloh, and A. Kalb (2014). ‘Sovereign Risk Premia: the Link between Fiscal Rules and Stability Culture.’ *Journal of International Money and Finance*, 41: 110–27. <https://doi.org/10.1016/j.jimonfin.2013.11.002>

- Heinemann, F., M-D. Moessinger, and M. Yeter (2018). 'Do Fiscal Rules Constrain Fiscal Policy? A Meta-Regression Analysis.' *European Journal of Political Economy*, 51: 69–92. <https://doi.org/10.1016/j.ejpoleco.2017.03.008>
- Herrero, C. (2022). 'Fiscal Policy in the EU after Covid: New Challenges and Opportunities'. In M. de Andés and F. Fernández (eds), *Good Policies, a Gap Year on Reforms – a Yearbook on the Euro 2022*. Madrid: Fundación de Estudios Financieros and Fundación ICO.
- Heyns, J. van der Spuy (1991). 'Begrotingsnorme in Suid-Afrika: Retoriek, Werklikheid en Integriteit.' *South African Journal of Economics*, 59(4): 384–404. <https://doi.org/10.1111/j.1813-6982.1991.tb01318.x>
- Hodge, A., Y. Kim, and V. Lledó (2018). 'The Emergence of a Second Generation of Fiscal Rules'. Technical Background Paper to IMF Staff Discussion Note 18/04. Washington, DC: International Monetary Fund.
- Holm-Hadulla, F., S. Hauptmeier, and P. Rother (2011). 'The Impact of Expenditure Rules on Budgetary Discipline over the Cycle'. *Applied Economics*, 44(25): 3287–96. <https://doi.org/10.1080/00036846.2011.572855>
- Iara, A., and G.B. Wolff (2014). 'Rules and Risk in the Euro Area'. *European Journal of Political Economy*, 34: 222–36. <https://doi.org/10.1016/j.ejpoleco.2014.02.002>
- IMF (2018). 'Fiscal Transparency Handbook'. Washington, DC: International Monetary Fund (Fiscal Affairs Department). <https://doi.org/10.5089/9781484331859.069>
- IMF (2023). World Economic Outlook Database (April). Washington, DC: International Monetary Fund. Available at: <https://www.imf.org/en/Publications/WEO/weo-database/2023/April> (accessed 8 June 2023).
- Kopits, G. (2001). 'Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?'. IMF Working Paper 01/145. Washington, DC: International Monetary Fund. <https://doi.org/10.2139/ssrn.2094462>
- Kopits, G., and S. Symansky (1998). 'Fiscal Policy Rules'. IMF Occasional Paper 162. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781557757043.084>
- Kumar, M., and T. Ter-Minassian (2007). 'Fiscal Discipline: Key Issues and Overview'. In M.S. Kumar and T. Ter-Minassian (eds), *Promoting Fiscal Discipline*. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781589066090.071>
- Kumar, M., et al. (2009). 'Fiscal Rules—Anchoring Expectations for Sustainable Public Finances'. IMF Policy Paper. Washington, DC: The International Monetary Fund.
- Leeper, E.M. (2009). 'Anchoring Fiscal Expectations'. NBER Working Paper 15269. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.2139/ssrn.1456393>
- Leeper, E.M. (2010). 'Monetary Science, Fiscal Alchemy'. NBER Working Paper 16510. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w16510>
- Lienert, I. (2010). 'Should Advanced Countries Adopt a Fiscal Responsibility Law?'. IMF Working Paper 10/254. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781455209545.001>
- Lledó, V., S. Yoon, X. Fang, S. Mbaye, and Y. Kim (2017). 'Fiscal Rules at a Glance'. Washington DC: International Monetary Fund.
- Marneffe, W., B. Van Aarle, W. van der Wielen, and L. Vereeck (2010). 'The Impact of Fiscal Rules on Public Finances: Theory and Empirical Evidence for the Euro Area'. CESifo Working Paper 3303. Munich: Centre for Economic Studies and IFO Institute. <https://doi.org/10.2139/ssrn.1742765>
- Merrifield, J.D., and B.W. Poulson (2017). 'New Constitutional "Debt Brakes" for Euroland Revisited?'. *Journal of Applied Business and Economics*, 19(8): 110–32.
- Nandelenga, M.W., and M.J. Ellyne (2020). 'Fiscal Rules and the Compliance Debate: Why do Countries Adopt Rules and Fail to Comply?'. ERSa Working Paper 815. Cape Town: Economic Research Southern Africa.

- National Treasury (2019). 'Budget Review 2019'. Pretoria: National Treasury.
- National Treasury (2022). 'Budget Review 2022'. Pretoria: National Treasury.
- National Treasury and South African Reserve Bank (2020). 'Letter of Intent'. In 'South Africa: Request for Purchase under the Rapid Financing Instrument – Press Release, Staff Report, and Statement by the Executive Director for South Africa'. IMF Country Report 20/226. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781513528502.002>
- Okeke, A., C. Alexiou, and J. Nellis (2021). 'Austerity Effects on National Output and Income Inequality: a Systematic Literature Review'. *Review of Economics*, 72(2): 97–148. <https://doi.org/10.1515/roe-2021-0012>
- Ramey, V.A. (2019). 'Ten Years after the Financial Crisis: What Have We Learned from the Renaissance in Fiscal Research?'. *Journal of Economic Perspectives*, 33(2): 89–114. <https://doi.org/10.1257/jep.33.2.89>
- Reuter, W.H. (2015). 'National Numerical Fiscal Rules: Not Complied With, But Still Effective?'. *European Journal of Political Economy*, 39(1): 67–81. <https://doi.org/10.1016/j.ejpoleco.2015.04.002>
- Romer, C.D. (2022). 'Lessons from Fiscal Policy in the Pandemic'. *The American Economist*, 67(2): 164–82. <https://doi.org/10.1177/05694345221104978>
- Schaechter, A., T. Kinda, N. Budina, and A. Weber (2012). 'Fiscal Rules in Response to the Crisis – Toward the “Next-Generation” Rules'. IMF Working Paper 12/187. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781475505351.001>
- Schlag, P. (1985). 'Rules and Standards'. *UCLA Law Review*, 33(2): 379–430.
- Siebrits, F.K., and E. Calitz (2004). 'Should South Africa Adopt Numerical Fiscal Rules?'. *South African Journal of Economics*, 72(4): 759–83. <https://doi.org/10.1111/j.1813-6982.2004.tb00133.x>
- Tapsoba, R. (2012). 'Do National Numerical Fiscal Rules Really Shape Fiscal Behaviours in Developing Countries? A Treatment Effect Evaluation'. *Economic Modelling*, 29(4): 1356–69. <https://doi.org/10.1016/j.econmod.2012.03.003>
- Turrini, A. (2008). 'Fiscal Policy and the Cycle in the Euro Area: the Role of Government Revenue and Expenditure'. EC Economic Paper 323. Brussels: European Commission.
- Ulloa-Suárez, C. (2023). 'Determinants of Compliance with Fiscal Rules: Misplaced Efforts or Hidden Motivations?'. *European Journal of Political Economy*, 78: 102399. <https://doi.org/10.1016/j.ejpoleco.2023.102399>
- Von Hagen, J., and G. Wolff. (2006). 'What Do Deficits Tell Us About Debt? Empirical Evidence on Creative Accounting with Fiscal Rules in the EU'. *Journal of Banking and Finance*, 30: 3259–79. <https://doi.org/10.1016/j.jbankfin.2006.05.011>
- Von Trapp, L., I. Lienert, and J. Wehner (2015). 'Principles for Independent Fiscal Institutions and Case Studies'. *OECD Journal on Budgeting*, 15(2): 9–272. <https://doi.org/10.1787/budget-15-5jm2795tv625>
- Wierds, P. (2008). 'How do Expenditure Rules Affect Fiscal Behaviour?'. DNB Working Paper 166. Amsterdam: Bank of the Netherlands. <https://doi.org/10.2139/ssrn.2004456>