European Fiscal Board

WORKSHOP 2019

INDEPENDENT FISCAL INSTITUTIONS IN THE EU FISCAL FRAMEWORK

BRUSSELS, 28 FEBRUARY 2019

The European Fiscal Board (EFB)

The European Fiscal Board was set up following the Five Presidents' Report "Completing Europe's Economic and Monetary Union", with the aim to strengthen the current economic governance framework.

The main responsibilities of EFB are:

- evaluate of the implementation of the Union fiscal framework and the appropriateness of the actual fiscal stance at euro area and national level
- make suggestions for the future evolution of the Union fiscal framework
- assess the prospective fiscal stance appropriate for the euro area as a whole based on an economic judgment, as well as the appropriate national fiscal stances, within the rules of the Stability and Growth Pact
- cooperate with the National Independent Fiscal Councils
- provide ad-hoc advice to the Commission President

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Professor at the University of Amsterdam and Vice-Dean of the Faculty of Economics and Business, the Netherlands

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For more information about the European Fiscal Board, please visit the following website:
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Foreword

On 28 February 2019, the first European Fiscal Board (EFB) workshop took place in Brussels under the heading '*Independent Fiscal Institutions in the EU Fiscal Framework*'. The EFB convened representatives from a broad spectrum of institutions: national independent fiscal institutions, finance ministries, EU institutions, international organizations, think tanks and academia. It pursued two inter-related objectives anchored in the mandate of the EFB. First, the workshop offered a prime opportunity to deepen our cooperation with national independent fiscal institutions. Second, it allowed us to exchange best practice across countries. With few exceptions, national independent fiscal institutions are a rather new addition to the EU fiscal framework; and there is plenty of scope for drawing valuable lessons by comparing different realities and experience. For this ebook publication, we kindly asked the authors who presented their papers during the workshop to incorporate the feedback and comments received from the discussants and workshop participants. The EFB gratefully acknowledges the contribution of the following discussants: George Kopits (Wilson Center and Portuguese Public Finance Council), Cinzia Alcidi (CEPS), Christophe Kamps (ECB), Scherie Nicol (OECD), Tobias Tesche (EFB Secretariat) and Laszlo Jankovics (DG ECFIN). This ebook covers a wide range of topics. We briefly present an overview of each chapter.

In Chapter 1, Charles Wyplosz advocates outlining a path for a long-term sustainable gross public debt level (i.e. a non-numerical debt target). He opposes any numerical target due to the insufficient theoretical underpinning for any specific number. As a result, Wyplosz argues that any numerical target would run the risk of becoming arbitrary. He further observes that the attempt to tie the government with a thousand knots has led to a 'Gulliver syndrome', namely, to inconsistent targets that enable cherry picking and erode the legitimacy of the fiscal rules. He stresses the need for a simplification of the rules but highlights that fiscal rules need to include an enforcement procedure. According to Wyplosz, the IFIs could play the role of the 'referee' by interpreting the margin for flexibility. Furthermore, he argues that they need to perform ex ante and ex post assessments of rule compliance and produce forecasts as a basis for budget computation. He also proposes to extend the mandate of IFIs to include the evaluation of the assumptions underpinning the budget planning. Wyplosz concludes that the decentralization of fiscal rule monitoring through national IFIs will foster democratic legitimacy.

In Chapter 2, Xavier Debrun tackles the question of how much coordination is required between EU IFIs and the European level. He identifies two types of 'coordination failure'. First, Debrun observes that there currently is a lack of sufficient harmonization of IFIs' objectives, functions and capacities. He proposes to define a set of minimum standards to remedy this state of affairs. Second, he highlights the need for vertical (via MoUs) and horizontal (via the Network of EU IFIs) information sharing. This would address the second type of 'coordination failure', which would arise in case there were disagreements between the Commission and the national IFIs. He puts forth recommendations about the role the EFB could play in this regard. Moreover, Debrun cautions that the 'transparency-reputation-market-discipline-nexus' should not be regarded as a panacea against unsustainable fiscal policy. He stresses the need for an effective communication strategy in order to boost the signal-to-noise ratio. However, a presence for the IFI in the national debate should not be taken for granted and requires active participation by the IFI.

In Chapter 3, Eddie Casey and Sebastian Barnes examine whether the expenditure benchmark (EB) should play a useful role in a future EU fiscal framework. The authors provide evidence for

the pro-cyclicality of the estimates of potential output underpinning the EB, which could call into question its suitability regarding effective economic stabilisation. They argue that the design of fiscal rules should be cognisant of this underlying uncertainty. As potential policy solutions, Casey and Barnes propose either to revise the EU Commonly Agreed Methodology for estimating potential output, to explore alternative methods to better capture the economic cycle endorsed by an independent fiscal institution or to establish 'rainy day' funds as a corrective to the pro-cyclicality of fiscal rules.

In Chapter 4, Janis Platais, Dace Kalsone and Sander van Veldhuizen describe the Latvian and Dutch experience in election costings. In the run up to the Latvian election that took place in October 2018, the Latvian Fiscal Discipline Council has - for the first time - started a 'fiscal discipline survey', i.e. an impact assessment of different proposed policy measures by political parties. The authors highlight that the survey gave political parties the opportunity to document their planned fiscal policy measures prior to the election and to signal their willingness to comply with the national fiscal rules. They argue that this practice could lead to more detailed party programs regarding spending priorities and revenue-raising measures. The authors admit that while the 'fiscal discipline survey' was not equivalent to a fully-fledged costing of election manifestos due to resource constraints, it has generated a debate on the fiscal plausibility of electoral campaign promises. In contrast, the Bureau for Economic Policy Analysis (CPB) in the Netherlands has a long-standing experience in the costing of election manifestos. The number of participating parties has steadily increased from three in 1986 to eleven in 2017. The authors show that the CPB's calculations are considered important by two-thirds of the electorate, while 20% of the respondents report that it has helped them in casting their ballot for a particular party. According to the authors, the Dutch experience shows that an IFI needs to gradually build up its reputation as an impartial assessor of election manifestos. In the case of Latvia, the contribution recommends to engage with political parties at an earlier point in the electoral cycle.

In Chapter 5, Fredrik Andersson and Lars Jonung propose a reform of the Swedish fiscal framework. The latter currently rests on four pillars: (i) an expenditure ceiling, (ii) a surplus target, (iii) a fiscal policy council, (iv) and a debt anchor. The authors recommend that the framework's current focus should shift from the budget surplus target (since 2019 1/3 percent of GDP over the business cycle for the general government) towards maintaining a stable debt-to-GDP ratio of 25% (+/-5 p.p.) instead of a debt anchor of 35%. Andersson and Jonung caution that the current fiscal framework is not well equipped to provide adequate safeguards for consumption smoothing if a major economic shock would lead to a massive increase in the debt level. Thus, they argue that a desirable range for the debt level would be 20-30% of GDP. Finally, the authors describe how the Swedish Fiscal Policy Council (created in 2007) has on occasion encouraged counter-cyclical fiscal policy by advising the government to spend and borrow *more* than it was willing to do.

In Chapter 6, Carlos Cuerpo and Lucia Rodriguez make a reform proposal for the domestic fiscal framework of Spain. They advocate for a reinforced interplay between the national fiscal rules and the Spanish Independent Authority for Fiscal Responsibility (AIReF). Their proposal rests on two pillars. First, they propose to sharpen the focus on debt sustainability. Thus, debt reduction features prominently in their revamped framework in addition to an intermediate target (based on the primary budget balance) and a short-term operational instrument (based on nominal expenditure). Second, Cuerpo and Rodriguez would like to see the role of AIReF strengthened. An extended mandate would require the IFI to assess the cyclical position of the economy or, alternatively, the no-policy-change projections for the primary balance. The authors argue that their reform proposal would foster local ownership, fiscal transparency, consistency and lead to an anchoring of fiscal expectations.

Independent Fiscal Institutions in the EU Fiscal Framework

First Workshop organized by the European Fiscal Board

28 FEBRUARY 2019 | BRUSSELS

Independent Fiscal Institutions (IFIs) have become an integral part of the EU's fiscal framework enhancing public scrutiny of budgetary policy. This first workshop organised by the European Fiscal Board aims at drawing relevant lessons from the experience of EU IFIs. The objective is to exchange best practice in order to strengthen IFI effectiveness in a long-lasting manner. The articles presented in this workshop make a distinct contribution towards improving the instruments that IFIs have at their disposal.

▪ PROGRAMME

08.30 - 09.00	**Registration** | Lord Jenkins Room, Charlemagne Building, Rue de la Loi 170
09.00 - 09.10	Welcoming remarks by **Niels Thygesen** | Chair of the European Fiscal Board

Morning Session

	Chair: **Martin Larch** | European Commission, Head of Unit, EMU Deepening - European Fiscal Board Secretariat
09.10 - 09.50	*'Fiscal Discipline: From Theory to Practice'*
	Charles Wyplosz | Professor of Economics, Graduate Institute Geneva
	Discussant: **George Kopits** | Senior Scholar, Woodrow Wilson Center, and Member, Portuguese Public Finance Council
09.50 - 10.30	*'Independent Fiscal Councils in the European Union: Is Coordination Required?'*
	Xavier Debrun | Division Chief, IMF Fiscal Policy Department
	Discussant: **Cinzia Alcidi** | Senior Research Fellow and Head of Economic Policy Unit, CEPS
10.30 - 10.45	Coffee break
10.45 - 11.25	*'Overcoming Procyclicality in the EU Spending Rule'*
	Eddie Casey | Chief Economist and Head of Secretariat, Irish Fiscal Advisory Council and **Sebastian Barnes** | Senior Economist, OECD, and Member, Irish Fiscal Advisory Council
	Discussant: **Christophe Kamps** | Head of Fiscal Policies Division, European Central Bank
11.25 - 12.25	**Panel Discussion**: *The interplay between IFIs and the EU Fiscal Framework – How can the role of the IFIs be strengthened?*
	Niels Thygesen (Chair) | Chair of the European Fiscal Board
	Chiara Goretti | Member, Italian Parliamentary Budget Office

José Luis Escrivá | Chair, Network of EU Independent Fiscal Institutions and President, Spanish Independent Authority for Fiscal Responsibility (AIReF)

Grégory Claeys | Research Fellow, Bruegel

François Monier | Secretary General, High Council of Public Finances

12.30 - 13.30	Lunch break

Afternoon Session

Chair: **Stefan Ciobanu** | Head of Unit, European Commission, Fiscal Governance

13.30 - 14.10	*'Costing Election Manifestos: Experience from EU IFIs'*

Dace Kalsone | Head of Secretariat, Latvian Fiscal Discipline Council, and **Sander van Veldhuizen** | Programme Manager Public Finance, CPB Netherlands Bureau for Economic Policy Analysis

Discussant: **Scherie Nicol** | Policy Analyst, Directorate for Public Governance and Territorial Development, OECD

14.10 - 14.25	Coffee break
14.25 - 15.05	*'The Swedish Fiscal Policy Council – the most successful one in the EU? The first 10 years and beyond'*

Lars Jonung | Professor emeritus of Economics, Lund University, and **Fredrik N.G. Andersson** | Associate Professor of Economics, Lund University

Discussant: **Tobias Tesche** | Policy Officer, European Commission, EMU Deepening - European Fiscal Board Secretariat

15.05 - 15.45	*'Some elements of a revamped fiscal framework for Spain'*

Carlos Cuerpo Caballero | Director, Economic Analysis Division, Spanish Independent Authority for Fiscal Responsibility (AIReF)

Discussant: **Laszlo Jankovics** | Policy Analyst, European Commission, Fiscal Governance

15.45 - 16.00	Concluding remarks by **Roel Beetsma**	Member, European Fiscal Board, and Vice-Dean, Faculty of Economics and Business, University of Amsterdam

1 Fiscal Discipline: From Theory to Practice[1]

Charles Wyplosz, The Graduate Institute, Geneva

1. Introduction

It is widely acknowledged that governments spontaneously tend to favor budget deficits over surpluses.[2] One reason for the deficit bias is that each ministry believes that it is for the others to abide by discipline, the so-called common pool problem. Another reason is that a government may feel that the task of straightening public finances is better left to its successors, a case of time inconsistency. Yet another possibility, the political budget cycle, is that election times encourage deficits, which are not always corrected afterwards, whether the profligate incumbent is re-elected or whether the successor does not wish to be constrained by the predecessor.

Yet, fiscal discipline is not a choice. A country whose governments fail to respect discipline must eventually either default on its debt or resort to monetary financing that results in inflation. Following a period of growing public indebtedness, more and more governments have adopted fiscal rules designed to constrain the bias and deliver discipline. Rules differ widely across countries and their effectiveness varies greatly. Much has been learned from these experiments, as recently summarized in Eyraud et al. (2018a), but a consensus of what constitutes a good rule remains elusive. This paper argues that progress requires taking theory seriously before designing rules. Consider, for example, the Delors Report, which shaped the Maastricht Treaty and the Stability and Growth Pact:

"In the economic field a wide range of decisions would remain the preserve of national and regional authorities. However, given their potential impact on the overall domestic and external economic situation of the Community and their implications for the conduct of a common monetary policy, such decisions would have to be placed within an agreed macroeconomic framework and be subject to binding procedures and rules. This would permit the determination of an overall policy stance for the Community as a whole, avoid unsustainable differences between individual member countries in public-sector borrowing requirements and place binding constraints on the size and the financing of budget deficits."
Delors Report (1989), p. 18.

The Delors Report correctly identifies important issues that require careful attention and adequate policy responses. It explicitly calls for fiscal rules. The justification is a vaguely defined externality of national fiscal policies, complemented with the observation – elsewhere in the report – that its impact is compounded in the presence of irrevocably fixed exchange rates increase. This is correct, but what externality exactly? Is it about income flows? Is it about potential sovereign debt crises? In that case, is it about contagion and/or about fiscal

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[2] See Alesina and Tabellini (1990), von Hagen and Harden (1994) and Krogstrup and Wyplosz (2010).

dominance? Three decades ago, these questions may have been seen as dealing with small details. Nowadays we know much more, but the institutions that were then created survive and, unsurprisingly, fail to deliver effective solutions. They need to be revisited, both in the Eurozone and in the many countries that have adopted rules.

Section 2 looks at theory. It starts by defining what fiscal discipline means. It argues that it means implementing the solvency condition derived from the intertemporal budget constraint while avoiding illiquidity. The next section derives a number of principles regarding the choice of a target, the horizon over which the rule must look, the distinction between target and instrument and the dangers of multiple and numerical targets. Section 4 presents three examples or rules, two that failed (the US and the Eurozone) and a successful one (New Zealand). Drawing on the conclusions reached so far, Section 5 proposes a new framework for fiscal discipline in the unique conditions of the Eurozone. The last section concludes.

2. Fiscal discipline: Theory

2.1. What does fiscal discipline mean?

Existing fiscal rules implement many different concepts to characterize the budget constraint. They are sometimes labelled responsibility, a term used in the UK and several Latin American countries. New Zealand uses the term prudence. The IMF refers to sustainability. Because these expressions have been transformed into specific measures, some of which are criticized below, I start from a clean sheet and refer to fiscal discipline.[3] Discipline here does not involve any notion of optimality. Optimal policies are derived from maximizing welfare under some constraints. This paper leaves welfare aside, because it involves political preferences, and focuses instead on the constraints. Two constraints are relevant: solvency and illiquidity.

2.2. Solvency

It seems natural to relate fiscal discipline to the intertemporal budget constraint. Satisfying this constraint *ex ante* defines solvency. An entity is deemed solvent if its existing debt is no larger than the expected present value of future revenues less the expected present value of future expenditures. This is clear cut, but hard to implement in practice, especially so for governments (relative to corporations), for four main reasons.

First, it implies to look at the present, the existing debt, and at future revenues and expenditures. Since a state is normally expected to exist forever, government revenues and expenditures must be estimated over the indefinite future. This cannot be done, of course, so any operationalization requires that the indefinite future be approximated with a long-term horizon.

Second, revenues include seigniorage earned by the central bank. Printing money to cover deficits should normally lead to inflation. Fiscal discipline must therefore include a constraint on inflation. In practice, this means making the central bank independent and subject to a strict price stability objective.

Third and related, if nominal growth is high enough to exceed the nominal interest cost of the debt service, the debt will tend to automatically decline. Importantly, however, this is not a sufficient condition for solvency. Solvency still requires that the primary budget deficit be constrained or that the return from public spending be high enough to outweigh the borrowing costs.

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[3] The seminal contribution to the literature on fiscal rules, Kopits and Symansky (1998), also refers to discipline.

Fourth, sovereign debts can be defaulted upon, in totality or partly. While insolvent corporations are closed down, there will always be a government. Of course, defaulted-upon creditors can try to recover losses, just like when a corporation becomes bankrupt. However, while firm bankruptcies are subject to specific legislation enforced by courts, governments can change domestic laws so that domestic creditors are unlikely to succeed. Foreign creditors can sue the government in foreign jurisdictions but the principle of foreign immunity implies that success is rarely achieved. When it is, enforcing foreign court judgment remains a massive hurdle.[4]

That a government cannot be shut down like a bankrupt firm separates out discipline from solvency. *Ex ante* violations are necessarily corrected *ex post*, possibly through inflation or default. Government solvency is always satisfied *ex post*, if need be by different means than budget surpluses. Discipline requires that these means are not used *and* that using the other mean, the budget, does not imply serious economic disruptions.

2.3. Illiquidity

Whether they are solvent or not, governments may lose market access. When it happens, they are unable to raise resources to finance their deficits, including debt service. The result is illiquidity. Illiquidity arises when the markets consider that a government is insolvent *ex ante* and that a default is likely. Thus, markets can act as the agent that enforces discipline. However, it is not desirable to rely on market-based fiscal discipline alone for three reasons.

First, the literature documents that markets indeed charge higher interest rates when the debt increases,[5] but the effect is not linear. This suggests that market discipline operates late and then too strongly. This is confirmed by studies that focus on the role of rating agencies, which also note the destabilizing impact of credit downgrades[6].

Second, that same literature shows that the interest rate premium also responds to the quality of fiscal institutions. It is lower where there exist legal limits to indebtedness, deficits and government spending, and they are higher when taxation is subject to a ceiling. Market-based fiscal discipline is more a complement than a substitute to fiscal restraints.

Third, as often when expectations drive market prices, self-fulfilling prophecies may occur. Illiquidity then arises when lenders stop lending and investors liquidate their positions because they anticipate these events. They are proven right *ex post* but their *ex ante* judgments may well be unjustified. Market-based fiscal discipline subjects governments to the whims of financial market participants.

The upshot is that fiscal discipline is unlikely to be adequately enforced by the financial markets. In the language of statistics, this approach is vulnerable to Type I and Type II errors: markets often fail to send timely signals when fiscal policy is actually dangerously undisciplined and they occasionally send warning signals – with grave consequences – when there is no serious problem of indiscipline.[7]

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[4] A recent paper by Schumacher et al. (2018) shows that the legal landscape is changing as litigation by 'vulture funds' has considerably increased.

[5] See e.g. Bayoumi et al, (1995), Poterba and Rueben (1999), Ardagna et al. (2007), von Hagen et al. (2011).

[6] A good review is Eijffinger (2012).

[7] This was duly noted in the Delors Report (p.24): "To some extent market forces can exert a disciplinary influence. […] Experience suggests that market perceptions do not necessarily provide strong and compelling signals and that access to a large capital market may for some time even facilitate the financing of economic imbalances. Rather than leading to a gradual adaptation of borrowing costs, market views about the creditworthiness of official borrowers

3. From theory to practice: principles

3.1. Fiscal rules: issues

Section 2 can be summarized as defining fiscal discipline as the combination of three constraints, to be met simultaneously: 1) *ex ante* solvency; 2) price stability; 3) avoiding illiquidity. In order to deal with the deficit bias, adequate incentives must be put in place to encourage governments to deliver fiscal discipline. A first incentive is to design the budgetary process to reduce the common pool problem, whereby ministries and lobbies vie for public spending while others want to reduce tax revenues. A second incentive is the adoption of fiscal rules that create legal obligations. A third incentive is the creation of independent fiscal councils, which evaluate budget proposals, monitor their implementation and strengthen the bite of rules. No solution is best for each and every country, but some general principles emerge from theory and practice.

Some 90 countries have adopted one form or another of a fiscal rule. The rules range from simple balanced budget rules to elaborate arrangements that include several constraints and a host of indicators. A complete rule must also include an enforcement procedure: which institution is in charge of assessing fiscal discipline and what, if any, are the corrective measures required when discipline is in jeopardy.

As has long been known, however, a rule generally is time-inconsistent: to be credible, a rule must be strictly adhered to but there will always exist circumstances when it is too costly to be implemented. There is no easy way-out. One approach is to specify circumstances when escape clauses can be triggered. However, not all circumstances can be foreseen, so this approach is bound to eventually fail. The other approach is to design a rule that is flexible enough to be interpreted when unexpected events occur. The border between flexibility and laxity is fuzzy, however. This has led a number of countries to rely on a 'referee' in the form of an independent fiscal council that interprets how flexibility can, or cannot, be used.

Most rules rely on at least one numerical target; examples include a deficit rule or spending caps. If the target is not under the direct control of the government, the rule must specify a policy instrument under the control of the government and how it relates to the target. This is where theory can make important contributions.

3.2. Net and gross debts

The budget constraint refers to the net debt, not the gross debt. However, in most cases it is very difficult to define and evaluate the value of sovereign assets. Work is under way to improve the evaluation of sovereign assets[8] but, at this stage in most countries, the imprecision remains too large to use net debt data. Fortunately, current estimates of net and gross debts show that they usually tend to move together as the example shown in Figure 1 indicates. Given the conclusions to follow, using gross debt measures does not raise any serious difficulty.

However, it must be recognized that theory does not imply that the gross debt be zero. Aiming at a zero gross debt is too restrictive and possibly counter-constructive because the finance industry as we know needs safe assets (see Caballero et al., 2017) and sovereign debts currently are the only potential safe assets.[9]

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tend to change abruptly and result in the closure of access to market financing. The constraints imposed by market forces might either be too slow and weak or too sudden and disruptive."

[8] A good review of the issues is *Measuring Net Government Debt: Theory and Practice*, Eurostat, 2014.

[9] The gross public debt of Singapore, a small country with a very large financial market, stands at around 100% of GDP. This is not a consequence of a fiscal indiscipline but of the need to provide the market with safe assets. (I owe this observation to Xavier Debrun.)

Figure 1. Gross and net debt of Eurozone governments
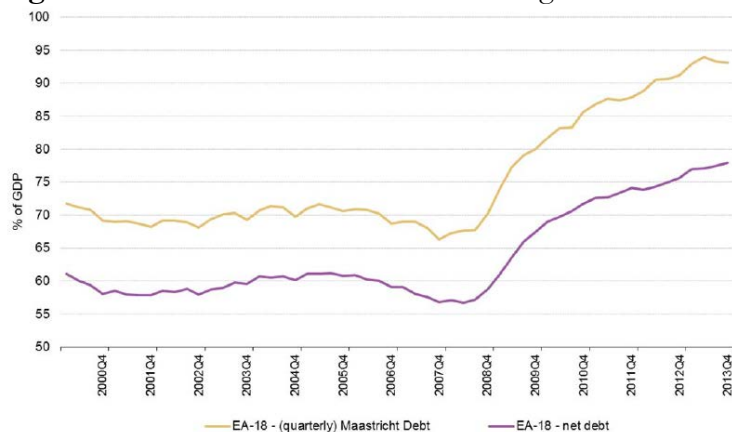
Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Source: *Measuring Net Government Debt: Theory and Practice*, Eurostat, 2014.

3.3. Choice of targets and associated instruments

The popular choice: budget targets

Many popular rules choose the budget deficit as their target. Obvious as it seems, this choice is not well justified. Consider a balanced budget rule, year in, year out. The rule is sufficient but not necessary for solvency, so it is too strict. Furthermore, it implies that the net public debt will become negligible as a share of GDP as long as nominal growth is on average positive. Unless the government holds a large amount of assets, the gross debt could be too small given the financial markets' need for safe assets. Finally, a balanced budget rule prevents the use of the fiscal policy as an instrument to stabilize activity.

A popular alternative is to aim at balancing the primary budget. It is not sufficient to prevent an unbounded growth of the debt to GDP ratio when the interest rate exceeds the growth rate.[10] [11] In that case, the target must be a primary surplus that matches at least the debt service adjusted for economic growth, which makes it similar to the overall balanced budget target, with the same lack of flexibility to cope with cyclical fluctuations.

This is why a number of countries target the cyclically-adjusted primary budget balance. Over the long run, as cyclical fluctuations even out, this target has the same properties as the primary budget target but it has the important short-run advantage of enabling counter-cyclical fiscal policies through the automatic stabilizers. In spite of this desirable property, the cyclically-adjusted primary budget balance target suffers from two lethal problems. First, computing the cyclical adjustment is known to be highly imprecise. This lack of precision can lead to policy mistakes, which undermine the credibility.[12] Second, there is no guarantee that the automatic stabilizers are powerful enough to cope with large economic disturbances. The frequently observed solution is to allow for escape clauses but, as noted above, escape clauses are an entry point for time inconsistency.

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[10] The debt accumulation accounting leads to $b_{t+n} = (1 + \delta)^n b_t + \sum_{j=1}^{n}(1 + \delta)^{j-1} pd_{t+j}$: where *pd* is the primary budget deficit to GDP ratio and δ is the adjusted discount rate approximated as $i - G$, the difference between the nominal interest rate *i* and the nominal GDP growth rate.

[11] Blanchard (2019) notes that the post-war experience is that the interest rate has often been smaller than the growth rate in many countries. This is an intriguing observation.

[12] The same issue arises for monetary policy. Orphanides and Williams (2005) describe how the Fed failed to stabilize both prices and output by acting on poor estimates of the unemployment gap.

Crucially, these popular targets have in common that they do not follow directly from the principles laid out above, which emphasize instead the long-term evolution of the public debt. A few years of deficits, even large ones, do not necessary imply indiscipline if they are sure to be followed by surpluses. Once it is agreed that every year cannot be seen as crucial to fiscal discipline, the incentive to abide by the rule is weakened, making it possible to succumb to the deficit bias while claiming a commitment to discipline. Unsurprisingly, budget targets have not performed well, generally (Eyraud et al. 2018).

Public expenditure target (or instrument?)

Recently, proposals for targeting public expenditures have become popular. Most proposals follow the same logic.[13] Given GDP trend growth, a target is set for public expenditures. Given tax revenues, this target is chosen to guide the budget balance, which is driving the evolution of the public debt. A key advantage is that the target is set as a proportion of potential GDP, so that fiscal policy is countercyclical.[14] Another advantage is that the government can control its expenditures quite precisely. Additionally, if the objective is to reduce the public debt, spending cuts have a low negative impact on cyclical conditions according to Alesina et al. (2019).

These are valid but misleading arguments. Public spending *per se* is unrelated to fiscal discipline. The link to the public debt works through the budget balance *via* assumptions about tax revenues. This is why most proposals actually target the change in expenditures net of changes in discretionary revenues – i.e. non-cyclical revenues. Any planned change in discretionary revenues must therefore be matched by an equal change in expenditures. Thus, the target is a mix of expenditures and revenues. This concept is far from intuitive and therefore unlikely to be understood by the public. In addition, it operates like a modified cyclically budget balance and faces the same limitations due to errors on estimates of potential GDP.[15] Furthermore, the spending cap implicitly rests on assumptions about tax revenues, which has led sometimes to complement the target with a tax floor. This then translates into a deficit ceiling. But spending caps and tax revenue floors are more demanding than a deficit ceiling. They interfere with the question of the size of government, which is deeply political and wholly unrelated to fiscal discipline. Some countries may benefit from lower public spending when it is large and inefficient, while others stand to benefit from higher spending. Mixing up discipline with such conflictual issues stands to undermine any sustained effort at achieving fiscal discipline.

In fact, the target is the debt and expenditures are an instrument to achieve the target. The vocabulary is not innocuous. It creates the misleading impression that aiming at expenditures is an end to itself. The limited evidence on expenditures target is inconclusive.[16]

Theoretically correct: the debt target

The formal definition of solvency presented in Section 2.2 can be restated differently: the debt to GDP ratio must be zero or negative in the infinite future.[17] A key challenge is the infinite

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[13] For a presentation and references, see European Fiscal Board (2018).

[14] With a target set for $G/\bar{Y}$, where G is public spending and $\bar{Y}$ is potential GDP, an increase in actual GDP Y relatively to $\bar{Y}$ leads to a decrease in G/Y.

[15] Darvas et al. (2018) present simulations that indicate a limited effect of forecast errors on the expenditure target.

[16] Cordes et al. (2015) report that expenditure rules increase the primary balance but they recognize that many expenditure rules coexist with other rules and that they are unable to separate out the effects.

[17] It is an equivalent definition because the future debt is the sum of the pre-existing ('today's') and the excess of future deficits over future surpluses cumulated with the interest charge. If the cumulated excess of future surpluses over future deficits at least matches today's debt – the previous definition – then future debt will be zero or negative. Formally, debt accumulation accounting leads to the following equation: $b_{t+n} = \frac{b_t}{(1+G)^n} + \sum_{j=1}^{n} \frac{d_{t+j}}{(1+G)^{j-1}}$ where b is the debt to GDP ratio, d is the budget deficit to GDP ratio and G the nominal GDP growth rate.

horizon. A natural solution is to look at a finite horizon, long enough to be purged from cyclical fluctuations but short enough for projections to be meaningfully produced. This opens up a second challenge: since we look at a finite horizon, the solvency condition must be reinterpreted, especially as we look at the gross debt. In practice, this means that the debt must be low enough in the long run. The challenge is to give operational content to 'low enough' and to the 'long run'. This section argues that these are serious difficulties but that they can be dealt with.

There is no generally agreed definition of what 'low enough' is. Theory remains largely silent. One observation is that large debts make the debt accumulation process very sensitive to variations in interest and growth rates, which is a source of macroeconomic instability, possibly leading to a debt crisis (illiquidity). Another observation is that a large debt service requires a correspondingly large primary surplus. The only conclusion that can be drawn at this stage is that a low debt level is preferable to a high debt level, which is neither surprising nor particularly helpful. Fortunately, there is more to be said.

A large empirical literature asks when the public debt becomes too large. Pioneered by Reinhart and Rogoff (2010), this literature remains fairly controversial although the results for the developed economies seem to delineate ranges, like 70 to 100% of GDP, beyond which growth is impaired.[18] As part of its debt sustainability analysis (DSA) framework, the IMF has developed a set of limits that are meant to rule out with high probability the risk of debt distress (Eyraud et al., 2018c).

In fact, there is no need for numerical targets. That the public debt ratio should not be 'too large' over the very long run means the ratio should remain low if it is low to start with, or that it should be set on a declining trend if it is initially too large for comfort. This view shifts the target away from the debt level and towards to its evolution from its starting position. Rather than a given-for-all-times numerical debt target, we look at a desirable path for the gross debt ratio over the long run. Over time, the debt must stay clear of what can be considered as a 'too large' level.

This view involves judgment, which may sound worrisome at first. It turns out that it is not difficult to assess whether a debt path is compatible with fiscal discipline. Looking at past history provides a first example. In Figure 2, the left-hand chart displays the case of three countries where deficits were not eventually matched by adequate surpluses. In the right-hand chart, significant debt buildups were eventually compensated for by subsequent surpluses. Eyeballing the chart suggests fiscal indiscipline in Greece, Italy and Portugal and fiscal discipline in Belgium, Ireland and Spain.[19] The figure also shows that fiscal policies go through multi-year cycles. This may reflect government changes or the realization that the debt buildup must be halted, often both. At any rate, a rising debt ratio is not alarming if the trend is subsequently reversed. A proper rule allows for such cycles while guaranteeing that slippages will be reversed in due time.

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[18] For a survey and detailed results see Fall et al. (2015),

[19] Note that in Ireland and Spain fiscal discipline was undercut by poor banking supervision that led to a crisis, which required the authorities to suddenly borrow large amounts to shore up failing banks in the wake of the global financial crisis. The result was a loss of market access. This confirms the earlier statement that proper banking regulation and supervision is an integral part of fiscal discipline.

Figure 2. General government gross debts (% GDP)
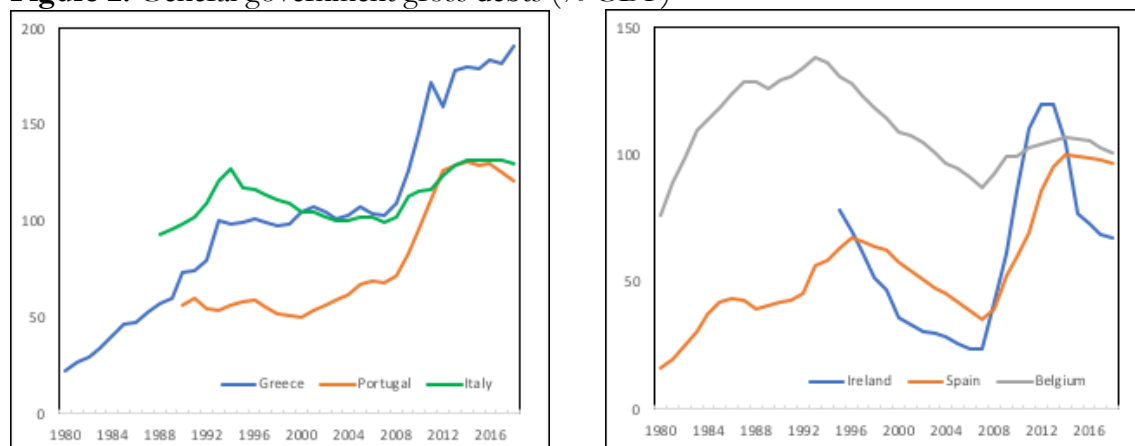
Source: WEO database, IMF

When the target is not under the direct control of the authorities, the rule must identify an instrument that can be set by the authorities and that affects the target. This applies to the inflation target for monetary policy and to the debt target for fiscal policy. There are some differences, though. Central banks directly control the short-term interest rate, which eventually and indirectly affect inflation. Regarding fiscal policy, the budget balance directly affect debt, but governments poorly control the budget balance, if only because it depends on the growth rate of the economy. On the other hand, the interest rate that matters most for inflation is the long-term rate, which central banks poorly control as well. On this ground, debt targeting does not seem to be less attractive for fiscal policy than inflation targeting for monetary policy.

Another difference is that central banks typically aim at inflation over a medium-term horizon of a few years while, as noted above, the debt target should be set for a much longer horizon. This make matters more complicated, but not entirely hopeless. The DSA methodology derives possible future paths for the public debt corresponding to current and future fiscal policies. The methodology can be reverse-engineered to derive current and future balances compatible with a given debt target at the chosen horizon.

An interesting aspect of this computation is that there exists an infinity of budget balances that deliver a given debt. This leaves the government free to choose the budget path that meets it political preferences. In particular, it gives wide space to conduct counter-cyclical fiscal policies. However, with a far-away debt target, this flexibility could be misused, allowing the current government to indulge in the deficit bias while constraining future governments. We return to this issue in Section 3.5.

3.4. Numerical targets

Most existing rules operate a numerical target, independently of what the target is. Section 3.3 argues that balanced budget targets are not well justified. More generally, whether the target is the budget balance, public expenditures or the debt, there is no theory backing any specific number. Any numerical target, therefore, is arbitrary. It is also driven by existing conditions at the time when it is adopted and these conditions will change over time. Numerical targets cannot be firmly justified when they are adopted and they stand to become outdated as time passes by.

Section 3.1 reminds us that the time inconsistency of rules is unavoidable and without any clear-cut solution. A numerical target is particularly vulnerable. It pins the rule's credibility down on a number that is at best difficult to justify, and quite possibly arbitrary. When the rule becomes binding, the numerical target comes under intense scrutiny. This is when political expediency sets

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in and the rule stands to be suspended or ignored, as has been the case repeatedly in the US case, see Section 4.2. Box 1 shows how the numerical debt target of the European Stability and Growth Pact has become obsolete and how attempts at reviving it are being ignored.

Box 1. Numerical rules in the Eurozone

The Stability and Growth Pact specifies that the debt should not exceed 60% of GDP and, if it does, that it should decline "at a satisfactory pace", with numerical annual targets. Figure 3 shows the unweighted average of public debts among the twelve member countries that were part of the monetary union at its start.[20] The average only fell below 60% in two years (2005 and 2006). The figure also displays the percentage of countries where the debt has been above the limit. The proportion has been below 50% only three years, early on. There is no logic about the 60% limit. Officially, it was the average in 1998, just before the Stability and Growth Pact went into effect but even that is not correct (the unweighted average was 66%, the weighted average was 72%). The budget deficit limit of 3% was linked to the debt target under long-outdated assumptions about the interest and growth rates. Among the same twelve countries, over the period 1999-2018, the 3% limit has been satisfied only 42% of the time.

Instead of recognizing that these numerical rules are arbitrary, the 2012 revision of the Stability and Growth Pact added another rule. It now requires that, as long as it exceeds 60%, the debt to GDP ratio must be reduced by 5% per year on average. Assuming that this rule is applied, out of the 9 countries above the 60% limit in 2018, it will take until 2034 for all but one (Greece) to comply with the debt requirement. Looking at the 10 countries where the debt limit was exceeded in 2012, the 5% debt reduction objective has been met 15% of the time over the period 2013-18.

Figure 3. Debts in the Eurozone: Average level (% of GDP) and percent of countries above 60%
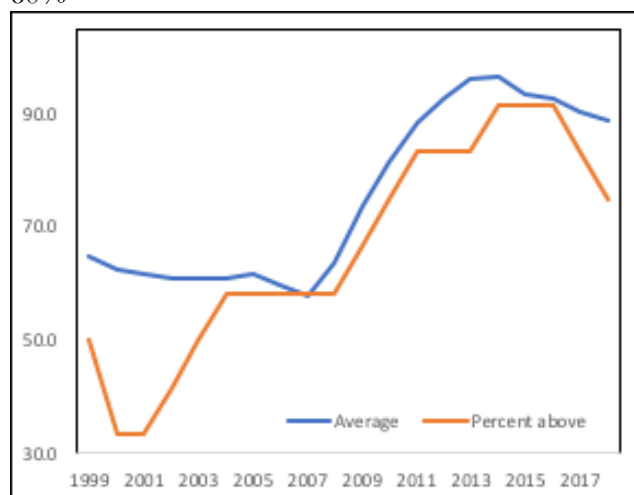
Source: AMECO on line.

Section 3.3 argues that the correct target is the public debt and that a numerical target is unwarranted. It suggests to adopt instead the 'eyeball test'. This requires a method to pass judgement on debt paths as well as on deviations from the chosen path. The IMF considers that the debt is sustainable when the government always remains able to serve its debt without

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[20] It includes Greece, which joined two years later.

drastic, and therefore implausible, changes in public spending or taxation. Likewise, fluctuations around the trend should never require the government to take drastic actions. The vagueness of this definition may seem unsatisfactory, in fact it is intended. It also matches the fact that different countries are considered as fiscally disciplined even though the evolution and levels of their public debts are very different. Some governments can accumulate large debts and yet keep on borrowing at low cost. One reason is that the markets believe, rightly or wrongly, that current and future governments will keep honoring their debts. Another reason is that the markets consider that the central bank will always guarantee the public debt. A good rule should cement such beliefs. Announcing a debt path sends an important signal to the markets and their reactions provide useful additional information to pass judgment.

3.5. Horizon and changes of governments

A running theme of this paper is that annual budget balances are a poor guide to fiscal discipline because a few years' budget balances have a limited impact on the long-term debt path.

How far should we look into the future? Figure 2 makes it clear that a horizon of several decades is required to allow for multi-year swings in fiscal policies and to come close to the concept of insolvency. Yet, as the horizon lengthens, the more uncertain the projections become. Fortunately, some progress has been achieved in this direction under the Debt Sustainability Analysis (DSA) procedure. DSA rests on debt accumulation accounting. It starts with explicit – but not always transparent and carefully reasoned – assumptions about the future primary budget balances, interest rates and growth rates. These assumptions make it possible to compute the future evolution of the debt to GDP ratio. However, these assumptions are quite uncertain, and uncertainty quickly rises as we look further into the distant future. The results should not be seen as forecasts but as conditional projections that merely reflect the underlying assumptions.

One popular solution to the problem of uncertainty is to limit DSA to short horizons, typically five years. Unfortunately, such short horizons are wholly inadequate as an approximation of the infinite horizon. Applying the results of DSA over short horizons can easily lead to flawed policy implications. In particular, it may encourage front loading corrective measures, which is often inefficient and can be counterproductive if the economy is in the midst of a recession.[21] It also contradicts the principle that tax revenues and public expenditures should be adjusted as smoothly as possible.

Extending DSA far into the future – several decades – is possible. The IMF and the US Congressional Budget Office (CBO), among others, do it. Because the results are very sensitive to the assumptions (Wyplosz, 2011), some precautions are essential, however. First, the assumptions must be explicitly described and justified. Second, robustness tests are needed to provide indications on the range of possible results. Third, uncertainty can be estimated too. It is possible to compute margins of confidence around the projections pretty much as central banks now commonly produce fan charts (admittedly at much shorter horizons, rarely exceeding five years). Eyraud et al. (2018c) and Eichengreen et al. (2018) show how fan charts can be constructed.

The examples presented in Figure 4 illustrate how the estimated uncertainty rises over the horizon. It shows the evolution of the Greek debt to GDP ratio as computed in 2018 over a horizon that extends to 2010. Two simulations are shown. Scenario 1 is a collection of assumptions that are seen by the authors as realistic while Scenario 2 incorporates optimistic assumptions about growth and budget balances. It shows how fragile the projections are and

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[21] This has been the case in the case of the Greek crisis, as argued in Sgherri and Wyplosz (2016).

how uncertain the debt path is. One way of reading the figure is that we do not really know where the debt will be four decades from now. In fact, it explains how the 'eyeball test' works. Under Scenario 1, the debt ratio initially declines but then rises inexorably, whether we look at the dotted line (the point estimate) or at most components of the fan charts. The conclusion is that the debt is likely to be unsustainable, even though a horizon of ten years would indicate otherwise. Under Scenario 2, instead, the central estimate of the debt ratio keeps on declining, and so do most of the components of the fan. The debt can be seen as likely to be sustainable. The 'eyeball test' says that the budget balances assumed in Scenario 2 are compatible with discipline, but only under optimistic assumptions about economic growth. It also says that the budget balances assumed in Scenario 1 are incompatible with discipline under 'reasonable' growth assumptions.

Figure 4. Debt sustainability analysis for Greece
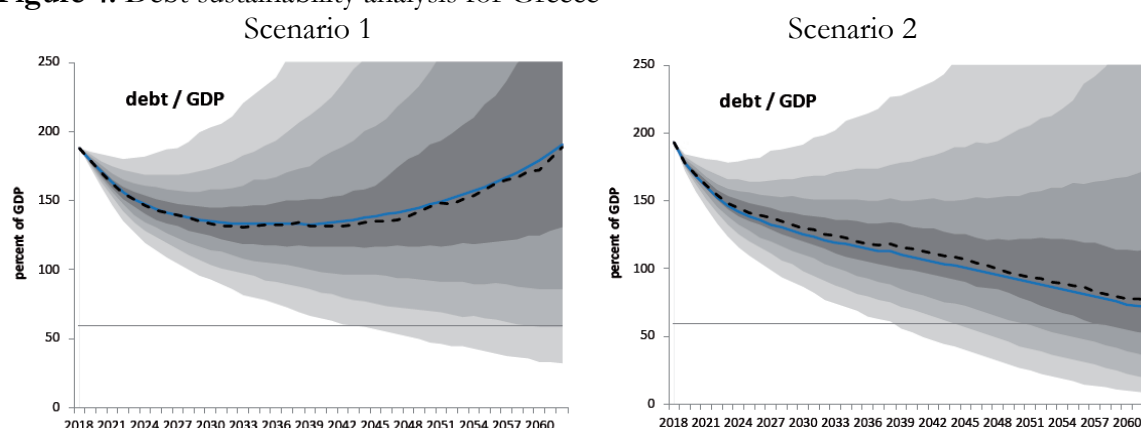
Source: Eichengreen et al. (2018)

Another major issue is that it is simply impossible to imagine over long horizons what future governments will be and *à fortiori* what they will do. Recent political developments around the world may suggest that we have entered into an era of higher policy volatility, in which case the margins of uncertainty used to produce fan charts are underestimated. More importantly, perhaps, elected governments have a strong legitimacy and they cannot be constrained by previous governments. The repeated experience is that governments dispose of rules when they bind.

Yet, it can be argued that legislated rules too have a strong legitimacy. This requires that the fiscal rule be enshrined in high-level legislation, ideally in the constitution. The constitution is the right place to recognize that fiscal discipline is mandatory. Yet, it remains to be seen whether that is enough to establish the legitimacy of rules over the legitimacy of governments.

The procedures adopted in New Zealand (see Section 4.3) or the Netherlands are effective even though they are not inscribed in the constitution. In both cases the debt target is set at the beginning of a government legislature for its end. The end-of-legislature debt target is embedded in long-term projections of the debt path. While the path cannot be binding on future governments, it serves two purposes. First, it makes it possible to determine whether the end-of-legislature debt target lies on a long-run path consistent with fiscal discipline. Second, the longer-term path serves as a yardstick for the subsequent legislatures. In these two countries, it weighs on the subsequent election when candidates articulate their objectives. It may well be that such an approach does not function in other countries with different political traditions. Traditions, however, can change, which is one potential outcome of setting independent fiscal councils, which are discussed in Section 3.7.

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3.6. Simplicity and the Gulliver syndrome

A tendency among the many countries that have adopted a fiscal rule has been to add new targets, mostly numerical, when the previous one(s) do not deliver. The Stability and Growth Pact in Europe and the various arrangements adopted at the federal level in the US (Auerbach, 2008) are examples of this tendency. The apparent logic of the 'Gulliver syndrome': is to tie the government with a thousand knots.

Multiplying targets is unlikely to deliver fiscal discipline. One reason is that the various targets must be consistent with each other. In contrast to Gulliver's knots, consistency requires computation, which inevitably entails assumptions. When some of these assumptions inevitably turn out to be disproved, consistency is not achieved and the construction loses credibility. In that case, the government can pick and choose among the various rules those that are easier to meet, which may or may not deliver adequate discipline. In addition, the more numerous the rules are, the more complex is the process. Complexity reduces understanding and undermines legitimacy. Debrun and Jonung (2018) describe a trilemma between simplicity, flexibility and enforcement. There is a strong case for a unique and easily understood rule. This paper argues in favor of anchoring it on non-numerical debt target.

3.7. Fiscal Councils

There is wide agreement on the rationale for independent fiscal councils, their functions and key characteristics. [22] Beetsma et al. (2018) report disappointingly limited empirical evidence that the councils are effective, possibly because they focus on the EU, or because they only rely on too few observations, or because not all councils are alike. This section looks at the less studied issue of their insertion in the budgetary process.

Governments set up independent fiscal councils to tie their own hands, but they are reluctant to let the constraint bind. Currently, no council has the power to force a government to follow its advice, they all have only an advisory function. When their advice is rejected, they still can influence the outcome if the public opinion recognizes their competence and nonpartisanship. Trust by the public opinion, however, is a necessary but not a sufficient condition for effectiveness. Effectiveness depends on how well a council is integrated in the budgetary process and on its ability to produce its own estimates of key parameters such as growth, interest rates and budget forecasts.

As they have no democratic mandate, independent fiscal councils have no legitimacy on their own, which explains why they can only be advisory bodies. In effect, independent fiscal councils are expected to constrain and incentivize governments, just like fiscal rules. Importantly, however, rules usually are legal constructs or public government commitments, each of which confer legitimacy. Defining the mandate of councils as the upholding of rules gives councils legitimacy so that rules and councils are complementary (Wyplosz, 2018).

A council that reports to the government provides advice to the very authority that it is supposed to constrain. The alternative is for the council to report to the parliament, whose role is to control the government. Only 13 of the 39 councils surveyed in Debrun et al. (2017) report to the parliament, as indicated in Table 1. While not a panacea if only because parliaments sometimes tend to support the governments no matter what, reporting to parliament stands a better chance of influencing the outcome

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[22] Kopits (2011) develops the essential principles to be adopted for fiscal councils. A collection of essays in Beetsma and Debrun (2018) cover in great depth the main issues. Beetsma et al. (2018) offers an overview.

Table 1. Councils reporting to Parliament

Finland	Mexico
Georgia	Serbia
Greece	South Africa
Iran	South Korea
Italy	Uganda
Latvia	United States
Lithuania	

Note: Based on either the name of the council or on whether council members are appointed exclusively by the parliament.
Source: IMF Fiscal Council Dataset, 2017, see Debrun et al. (2017).

4. Three cases

This section presents three cases of fiscal rules in order to illustrate the previous argumentation and to lay the ground for the proposal presented in Section 5. The Eurozone shows the difficulties of enforcing multiple numerical rules. In the USA, fiscal discipline has not been achieved at the federal level because rules were dismissed whenever they became binding. At the state level, however, fiscal discipline is firmly established. Finally, the successful procedure adopted in New Zealand is well aligned with the principles developed above.

4.1. The Eurozone

The Stability and Growth Pact had failed to achieve its key purpose, namely to preserve the monetary union from potentially lethal debt crises.[23] Even before the crisis, there were indications that the pact was not delivering as Figure 3 illustrates. Supporters of the pact observe that, in practice, the 60% debt limit has been discarded long ago. Accordingly, they regard as irrelevant the evidence that more than half countries have been in violation of the rule ever since 2003. But ignoring the binding component of a rule is hardly reassuring. In fact, a similar proportion of countries have been placed in the Excessive Debt Procedure because of other violations of the pact.

The evidence displayed in Figure 5 offers a more nuanced view, which matches the empirical literature.[24] Since 2000, the Eurozone's debt has increased significantly less than in the UK and the US, and has started to decline following the jump prompted by global financial crisis. On the other hand, outside of the Eurozone, Sweden and Switzerland have managed to reduce their public debts to moderate levels. The post-2012 decline, however, reflects diverging evolutions across the Eurozone. Some countries, such as Austria, Finland, Germany, Ireland have brought their debts down. Others, some of which are not shown in Figure 2, have allowed their debts to rise quite sizably. One size does not fit all, which is a key failure of the Stability and Growth Pact.

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[23] In an early study of the pact, Eichengreen and Wyplosz (1997) write: "Our conclusion is that the Stability Pact may have some slight benefits in terms of fiscal discipline, but may have significant costs, both in diverting political effort from more fundamental problems and indeed in making those fundamental problems worse than before."

[24] Ioannou and Stracca (2011) provides econometric evidence that the pact has had no effect on primary balances. Using counterfactuals, Koehler and König (2014) report some constraining effects, mostly among the less indebted countries. Larch et al. (2010) describe the pact as ineffective in good times and implausibly restrictive in bad times.

Figure 5. Gross public debts (% of GDP) in selected countries
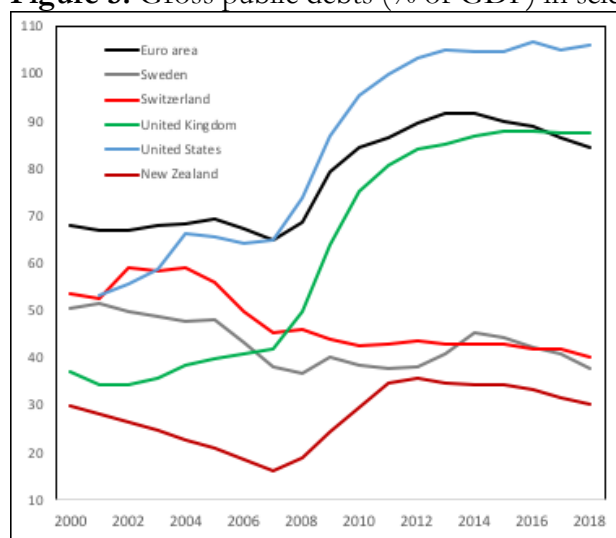
Source: *World Economic Outlook* online database, IMF.

As emphasized by von Hagen and Harden (1994), in order to be effective, fiscal procedures have to be adapted to the budgetary process, including the nature of political governance. Given the wide disparity of political governance arrangements across the Eurozone, a single set of rules is unlikely to work everywhere.

A second interpretation, is that national ownership matters. Some countries, for example Austria and Netherlands, had long developed their own rules and mechanisms before the Stability and Growth Pact was created. This may explain their successes in achieving fiscal discipline. Other countries, that have long been undisciplined, for example France, Greece, Portugal or Italy, have struggled to implement the Stability and Growth Pact. The involvement of an external agent, the European Commission, may well be counter-effective as its recommendations do not fit into the national budgetary process. Well aware of the issue, the Commission has created the Spring Semester, intends to promote, at an early stage of national budgetary processes, detailed discussions between the Commission and each government. In practice, the procedure is as complex as the rules, which leads to opacity, which undermines the budgetary processes.

A third interpretation concerns the enforcement of the pact is very much in doubt. In addition to potential reputation costs, the only stick is the fine that can be imposed on a non-compliant country. Such a decision is politically combustible and has been avoided so far.

The Stability and Growth Pact has been reformed twice, in 2005 and 2011-12. Each reform has added new rules, criteria and obligations so that the pact is now "extremely complex", as noted in European Fiscal Board (2018, p.70). Part of the complexity arises from the multiplicity of criteria: the actual balance, its cyclically-adjusted version, public expenditures and the medium-term objectives. In addition, several carrots allow from leniency (in presence of economic reforms and public investment). As a result, the Commission verdict is based on tradeoffs between multiple objectives and official carrots, rarely a black-and-white situation. Inevitably, political considerations are sure to creep in, in stark contrast with the highly technical rules.[25]

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[25] In 2015, surprising leniency was applied to France. Asked about it, President of the Commission famously answered "because it is France", see https://uk.reuters.com/article/uk-eu-deficit-france/eu-gives-budget-leeway-to-france-because-it-is-france-juncker-idUKKCN0YM1N0.

This is one more illustration of the fact that rules must be interpreted by independent councils. The European Fiscal Board (EFB) has a major role to play. Unfortunately, while the EFB is independent and competent, it is embedded within the Commission to which it reports, its members are meant to dedicate very little time[26] and they rely entirely on the Commission's own staff for information and calculations.

Furthermore, the Stability and Growth Pact is undermined by the prospect of a bailout, which potentially provides an incentive towards fiscal laxity as emphasized by the literature on fiscal federalism (see, e.g., Wildasin, 1997, and Kopits, 2001) and confirmed by experience. This was well understood even before the creation of the euro and indeed led to the 'no-bailout' clause of the Maastricht Treaty. Unfortunately, the clause was ignored at the first instance when it became binding in 2010.

Finally, the 'doom loop' phenomenon (Brunnermeier et al., 2016) calls attention to the tight embrace between a government and its banks, which hold large amounts of the national public debt. A well-disciplined government can be dragged into a debt crisis if its banking system suffers a serious blow, as happened in Ireland in 2010. It follows that banking stability must be an integral part of any fiscal discipline framework.

Previous changes to the Stability and Growth Pact have added complexity in an endless quest for tighter rules that are evaded by some member governments – which pick and choose what they abide to – or diluted in an opaque bureaucratic process open to politicization. The pact has to be replaced with a new arrangement that closely matches the theoretical principles. Wyplosz (2003) argues in favor of decentralizing the responsibility for fiscal discipline to the national level, where both legal authority and democratic legitimacy are located, while restoring a foolproof no-bailout rule. Section 5 elaborates on this approach.

4.2. The US

The US model constitutes an apparent puzzle. At the sub-federal level, it has worked well for over a century and a half while it is failing at the federal level. Both its success and failures, however, offer important lessons.

Figure 6 compares the distribution of the debt ratios among the 50 US states and the 16 German Laender. Even the highest debt in the US (Rhode Island at 15.1% of GDP) is lower than the second quartile in Germany, where Bremen exhibits a debt of 65.1%. In the US, State (and local) rules are self-imposed and self-administered. Most of them are constitutional. They require one form of another of zero deficits, with some loopholes which have been visibly exploited.[27] In Germany, the Länder are subject to a centrally imposed and enforced stability pact, a tough version of the Stability and Growth Pact. Crucially, the adoption of state-level constitutional roles in the US followed the adoption of a no-bailout rule adopted by the federal Congress in the 1840s. On the contrary, the German Constitutional Court has bailouts of laender on the Federal government in 1992.[28] This is powerful evidence of the crucial importance of both a credible no-bailout rule and of the ownership of fiscal rules. The simplicity of US States' fiscal rules is also noteworthy while their variety suggests that details matter little when the rule is written in the relevant constitution.

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[26] The Chair is to spend 30 days of work a year and the four other members 15 days each.
[27] For details, see National Conference of State Legislatures (2010).
[28] There has been one exception to the no-bailout jurisprudence in the US, that of the District of Columbia in 1995 (where Congressmen spend a part of their times). Henning and Kessler (2012) offer a brief historical overview of the US and Seitz (1999) does the same for Germany. Von Hagen et al. (2000) look at bailouts in Australia, Germany, Italy and Sweden.

Figure 6. Debt to GDP ratios in Germany (2017) and the USA (2018)
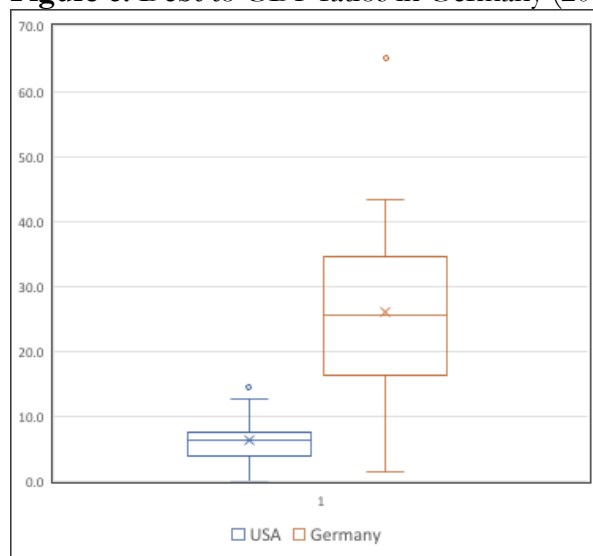
Sources: Destatis and https://www.usgovernmentdebt.us
Notes: The box-and whiskers diagram displays, from bottom to top: the first quartile (lower whisker), the second quartile (lower side of the box), the median (mid-line), the average (cross), the third quartile (upper side of the box, the fourth quartile (upper whisker). The circles correspond to outliers.

The US federal case is a potent illustration of the deficit bias. As recounted by Auerbach (2008), the US has successively adopted various rules since the mid-1970s. These rules were set by Congress, which overturned them when they became binding. At various times, the list included multi-year deficit targets that could lead to automatic sequestration of expenditures, limits on discretionary spending, the requirement that any increase on spending or tax reduction proposed by Congress be compensated to leave the balance unaffected. Since 1999, when the last rules were abandoned, the only constraint is a numerical nominal debt ceiling that requires a formal vote of Congress to be raised. Figure 6 shows that has Congress has dutifully obliged, sometimes after spectacular closures of government.

Yet, the fraught federal arrangements include a silver lining, the creation of the Congressional Budget Office (CBO) in 1974. It is not a fiscal council as defined above but a staunchly independent and nonpartisan agency, run by a single director. It is prevented by law from presenting views of what should, or should not be done. Its role is to evaluate every proposed legislation that has budgetary implications. Its projections extend to 10 years, and some versions extend the horizon to 30 years. In effect, the CBO is in charge of technical preparations for the budget as it produces projections of the various alternatives under consideration. To that effect, it employs a large (about 245 people) staff that include highly competent economists and lawyers. Its reports are universally considered as reliable. They are presented to Congress and play a prominent role in its deliberations. Congress trusts the CBO because it is its own office.

In the absence of any rule, the Congress remains free to adopt any budget of its choice. This shows that the existence of an independent council cannot be a substitute for effective rules. Conversely, the simple State-level rules are effective, even in the absence of fiscal councils because they are constitutional. On the other hand, the state rules are procyclical, the consequence of the stark simplicity of balanced-budget rules adopted some hundred years ago. They are bearable for two reasons: 1) federal transfers, most of which are automatic, provide countercyclical resources; 2) individuals, households and firms, borrow in bad times and pay

back in good times. Quantitatively, by far the most important channel is the second one, as shown by Asdrubali et al. (1996) and Gros and Belke (2015).

4.3. New Zealand

The fiscal framework of New Zealand is not widely known and yet it has been highly successful. Figure 5 shows that its debt is the lowest in the sample, even though fiscal policy turned sharply expansionary after 2007 while other disciplined countries like Sweden and Switzerland relied on spillovers from other countries' fiscal expansions. The framework – it is telling that it is not called a rule – is also very different from most other fiscal rules. A brief review is therefore in order.[29]

With its Fiscal Responsibility Act of 1994, New Zealand can probably claim to be the first country to formally legislate on fiscal discipline. The Act establishes a set of principles and mandates the government to develop a strategy consistent with these principles. The principles essentially define fiscal responsibility as follows. The debt must be kept at 'prudent levels' by balancing expenditures and revenues over time. Fiscal risks must be managed prudently. The fiscal strategy must have regard on its impact on present and future generations. Thus, the debt is the target, without any numerical rule, and the strategy is definitely long run.

The details of the strategy have changed over the years but the general approach remains the same. Currently, the government must publish each year a *Fiscal Strategy Report*, with an interim update. The Report present its *decisions* for the next fiscal year, its *intentions* over the next four years and, at least every four years, a *statement* for the next 40 years, under the assumption that current expenditure and revenue policies remain unchanged. The reporting concerns the net debt, the net worth, expenditures, revenues and the balance. Importantly, the government must explain how the strategy is responsible. If disturbances require strategies inconsistent with the responsibility principles, the government must give reasons and explain how it intends to return to the principles. The projections are produced by the Treasury, which enjoys a great degree of independence from the government, in effect acting as a fiscal council. The latest net debt trajectory is shown in Figure 7. It passes the 'eyeball test' suggested in the previous section. In 2018, the Treasury started to produce stress tests.

The Act emphasizes three aspects. First is prudence. The debt target that the government sets for itself includes a buffer to deal with unforeseen shocks. It identifies vulnerabilities and must be consistent with long-run sustainability. Second is transparency, which relies on regular updates published by the independent Treasury. Third are incentives. The framework explicitly rejects the idea of precise and numerical targets, asserting instead that each government must own its commitments.

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[29] A more detailed description is provided by New Zealand Government (2015).

Figure 7. New Zealand: Net debt path (% of GDP)
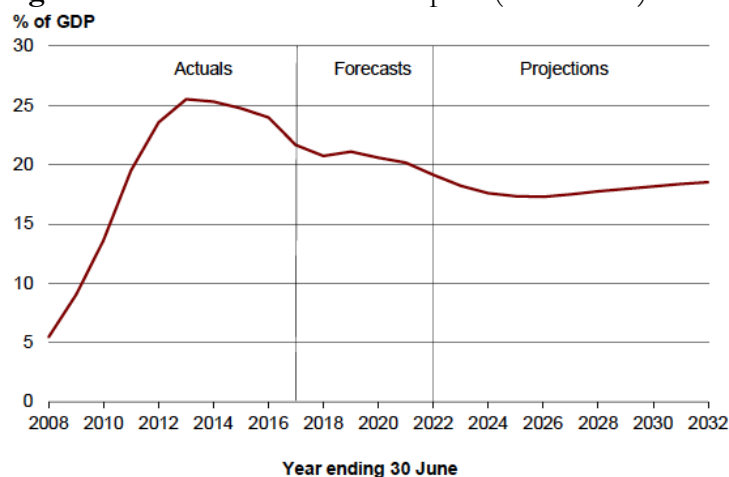
Source: *Fiscal Strategy Report* 2018, The Treasury

5. Synthesis: What model for the Eurozone?

This section describes a proposal on how to establish fiscal discipline in the Eurozone. Unrealistically perhaps, it assumes that we start from a white sheet, without the Stability and Growth Pact and its various derivatives.

5.1. Decentralization and no-bailout

Since the legal authority to decide on the budget rests at the national level, it is only at this level that fiscal discipline can be enforced.[30] Those who justify the Stability and Growth Pact observe that it is part of a treaty that all member countries have ratified and must therefore respect. The problem is the existence of two contradictory principles: national sovereignty and an international treaty. The hope was that the treaty would take precedent over national sovereignty. This did not happen, because democratic legitimacy matters a lot and because governments are elected at the national level. Maybe, in the future, the EU will evolve into a full-blown confederation. Until it happens, fiscal discipline can only be established at the national level.

The counter-argument is that some countries seem unable to impose fiscal discipline onto themselves so some centralized control is needed. The examples presented in Section 4 show that this conclusion is not warranted. In the US, fiscal discipline is achieved through a combination of State constitutional rules and a rock-solid no-bailout rule that has remained unchallenged for nearly two centuries. The German case – which inspired the Stability and Growth Pact – is a perfect example of centralized control, combined with a mandatory bailout rule, which does not work very well (Figure 6).

5.2. National rules

As argued above, a good rule rests on a target and an instrument. The target is the long-run evolution of the public debt, measured as a ratio of gross debt to GDP. The policy instrument is the budget balance. The horizon is broken down into the long run (several decades) for the target and the end of the legislature as an intermediary target. Countries with large debts must commit to bring them down in the long run, countries with a moderate debt ratio may want to keep it is or to bring it down. Countries with low debts do not need budget restraints (but a rule must be in place to deal with possible future slippages). The chosen debt path is translated into a budget path over the relevant horizon. When shocks occur, the path can be adjusted without

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[30] This is an important result from the literature on fiscal federalism.

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allowing the end-of-horizon debt target to slip, bygones should not be bygones. The adjustment recognizes that annual outcomes must be seen within a multi-year process. A good example is the Swiss debt-brake, which records budget slippages in a special account and requires that unplanned deficits be compensated for by unplanned surpluses. Unplanned surpluses can be used as a rainy-day fund. However, aiming at the end of the legislature is open to some criticism, as explained in Box 2.

Box 2. The end-of-legislature conundrum

Adopting as an intermediary target the debt ratio at the end of the legislature is both logical and problematic. It is logical because a government cannot make commitments for its successor, even it is reelected. It is problematic because, over time, the horizon shrinks and it may become impossible to reach the intermediate target during the last year of a legislature. In addition, a departing government is unlikely to be highly focused on meeting its earlier commitments even if it is concerned with its credibility or that of its ruling party(ies). Furthermore, how to deal with severe unforeseen shocks?

This issue is directly related to the literature on political business cycles, which explains how and why governments tend to expand transfers or cut taxes before elections.[31] This literature suggests that there is no straightforward solution.

Perhaps, the only encouraging result from that literature is that transparency mitigates the problem. For instance, Repetto (2017) finds that the political business cycles are reduced when the press ensures quality coverage. This suggests an important role for independent fiscal councils. Otherwise, one possibility is to apply the New Zealand principle of prudence and allow for a buffer into the target (as also suggested by Eyraud et al., 2018b). A more ambitious solution would be to build in a sequestration mechanism that cuts automatically spending when the target becomes out of reach, but it could easily lead to procyclical fiscal policies, as in the US.

Another issue is whether to reset the long-run debt path at the beginning of a legislature. On the one hand, it can be argued that a new government should not be put in a bind because of poor discipline of its predecessor, or even that such a constraint is not politically realistic. On the other hand, the presence of recurrent political business cycles would contribute to ever-rising indebtedness.

5.3. Fiscal councils

Section 3.7 argues that fiscal councils have an important role to play in the implementation of fiscal rules. In Europe, the Treaty on Stability, Cooperation and Governance (TSCG) mandates member countries to establish fiscal councils but leaves them relatively free regarding crucial details. If, as suggested, fiscal discipline is to be decentralized to the national levels, it becomes crucial that all countries adopt best practice.

Previsions and projections
Optimistic assumptions about growth and the interest rate are a classic ingredient of the deficit bias. The parliament and the broader public are ill equipped to challenge the government numbers. This is why in a (small) number of countries, such as the Netherlands or (partially) the

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[31] For a review, see Drazen (2000) and the comments thereafter. An empirical update is Phillips (2016).

UK, the technical step is delegated to the fiscal council (or to an independent Treasury in New Zealand). In the US, the Congressional Budget Office (CBO) operates in parallel with the government's Office of Management and Budget and its work tends to prevail when the Congress adopts the budget law. These examples show that there is just one way to proceed. Every country should be free to adopt the arrangement that best fits its institutions but the translation of the choices of the government into budget numbers should be delegated to an independent organization, which has the financial and technical resources to carry out the task.

Target and instrument

The independent fiscal council should also be tasked to pass judgment on what is a reasonable long-run debt target given prevailing conditions and to translate this debt target into an intermediate (end of legislature) debt target as well as into annual budgets, the instruments.

An example of a good solution is provided by the Netherlands. Its CPB is tasked to evaluate government budgetary plans spelled out at the outset of a legislature, to derive annual budget implications and to monitor outcomes. The CPB also presents long-run estimates, which can be seen as a DSA in the sense that they show whether the debt target is consistent with the solvency requirement. The CPB forecasts are then reviewed and evaluated by two other independent bodies (the Official Advisory Group on Fiscal Principles and the Social and Economic Council). A simpler structure would task a single Fiscal Council with both producing and evaluating the forecasts relative to a debt rule.

Reporting

The budget process typically involves three main steps: 1) Negotiations within the government; 2) Production of the relevant numerical implications; 3) Approval by the parliament. The first step is political, the second one is technical and should be delegated to the fiscal council. Quite possibly, these two steps can be recursive.

The third step varies a great deal across member countries, but everywhere this is where control over the government is exercised. This control, however, is often weak. Political considerations may restrain the vigor of the parliamentary debate and few members parliament are versed in budget technicalities. Since fiscal councils have no legitimacy, and therefore no authority, to impose discipline on governments, the parliamentary step is the best hope for dealing with the deficit bias. Unfortunately, parliaments too may be subject to the deficit bias.

The best hope is for the relevant discipline rule to be written in the constitution, which delegates ultimate responsibility for delivering fiscal discipline to the parliament. Thus legally bound, the parliament is less likely to succumb to the deficit bias. This is even more likely if a constitutional court is able to reject parliamentary decisions that violate the fiscal rule. To be effective, the parliament needs to have access to truthful information. The experience of the of the Dutch CPB suggests that a well-informed parliament trusts (over time) an independent fiscal council. The experience of the US CBO is that trust is strengthened when the fiscal council is created within the parliament to which it reports.

5.4. The European level

No matter how well designed the rule and how efficient the council, there will always be a risk that fiscal discipline is not achieved in a member country. This would represent a seriously negative externality for the monetary union as a whole. The probability that it occurs must be reduced as much as possible. Four proposals deserve consideration.

Oversight of national frameworks

To start with, the TSCG already sets principles for national budgetary processes. Unfortunately, its requirements are (intentionally) vague, which has led to the adoption of frameworks of variable quality and legal status. An improved treaty should provide more precise criteria and subject each country's framework to approval by the European Fiscal Board. Not all countries should be required to adopt the same arrangement; those with solid arrangements (e.g. the Netherlands) should be free to keep them. What is needed is to agree on explicit criteria. The European Fiscal Board would evaluate each national arrangement and determine whether the criteria are met.

The no-bailout clause

Section 4.2 strongly suggests that, in a 'federal' arrangement, the ultimate line of defense of fiscal discipline at the sub-central level is a rock-solid no-bailout clause. It can provide a powerful incentive, but only if its implementation is one hundred percent guaranteed. The fact that it was pushed aside when it became binding at the outset of the Greek sovereign debt crisis means that the no-bailout clause does not exist anymore. The clause needs to be reinstated. That probably means improving the wording of the relevant articles of the treaty and redefining the mission of the European Stability Mechanism (ESM) , whose role is to bailout member countries.

ECB instruments

A sometimes-overlooked specificity of the Eurozone is that the ECB routinely purchases national treasury bonds for its operations under the assumption that they are all zero-risk, with exceptions when a country is under an ESM program. The result is that, in normal times, there is no market risk premium and no *ex ante* market-based incentive to exercise discipline. In contrast, in the US and Canada, the central bank is prohibited to deal in sub-federal public debt instruments, so that the interest rates are entirely market determined. How can this be applied to the Eurozone? The ECB needs safe instruments for its routine operations. The solution could be for the ECB to issue its own debt instruments. If it were to conduct initially one big operation with the market, swapping its debt against public debt, it would bear risk, which is not desirable – or acceptable. The alternative is for the ECB to take advantage of the forthcoming winding down of its QE to absorb liquidity against its own debt (and let its bond portfolio shrink as instruments mature).

Sovereign debt crises

Finally, how to deal with a country that fails to achieve fiscal discipline and eventually is hit by a crisis? During the sovereign debt crisis, the need to build firewalls was recognized early on. It eventually led to the creation of the ESM. The trade-off between the need for a firewall and a no-bailout rule is acute. Taken in isolation, there is no compelling argument to guide the choice between these two alternatives. If, however, it can be agreed that the no-bailout rule is an essential component of the fiscal discipline framework, then the conclusion is that no firewall should come at the expense of the no-bailout rule. A number of implications follow.

First, the doom loop implies that we need two different firewalls, one for banks and one for public debts. Completing the Banking Union with a tight resolution mechanism backed by a common resolution fund and a deposit insurance mechanism is the widely agreed way to construct a firewall against banking crises (Gros and Schoenmaker, 2014). In addition, there should be a cap on domestic public debts held by banks, another widely held view that is facing political resistance.

Second, in case of a sovereign debt crisis, the natural way to avoid breaking the no-bailout rule is for the relevant country to seek help outside the Eurozone, and the IMF is the relevant port of call. If large amounts are needed beyond normal IMF loans, some Eurozone countries can lend to the IMF as part of a standard procedure (General Agreements to Borrow). In this case, it becomes possible to modify the mandate of the ESM, away from bailouts and exclusively in charge of bank resolutions. Along with the creation of a bank deposit insurance scheme, as suggested for example in European Commission (2015), the banking union would be complete.

Third, because simplicity is of the essence and to avoid a multiplicity of rules (Section 3.6), the Stability and Growth Pact should no longer be the centerpiece of the fiscal discipline architecture. This would change the role of the Commission. It would still monitor national budgets but would not need to trigger excessive deficit procedures. Instead, its main role would be to detect instances when a member country does not abide by its own rules, in which case it could ask the European Court of Justice to require that the country fulfills its own constitutional obligations.

Fourth, the mission of the European Fiscal Board would also have to be modified. It could still be tasked with the responsibility of evaluating the aggregate fiscal policy but its main role would be to oversee the work of national fiscal councils. It could be helpful that the Board operate under the responsibility of the European Court of Justice.

6. Conclusions

The Stability and Growth Pact has been created more than twenty years ago, at a time when our understanding of fiscal rules and councils was rudimentary. Even though it may have succeeded in sometimes reducing deficits, the debt buildup since 1999 in some countries, which resulted in the sovereign debt crisis, indicates that it has not achieved its aims. Successive reforms have not improved its performance, despite the Commission's best efforts.

This paper recognizes that the concept of fiscal discipline is fuzzy. This is one reason why numerical fiscal rules are often inefficient. The resulting tendency to make them ever more complex makes matter worse, as they become ever more opaque and more open to interpretation. This paper argues that a new rule should identify the debt to GDP ratio as a long-run non-numerical target. The end-of-legislature debt ratio would then be an intermediate target and the instrument would be budget balance. Technical work and evaluation of the targets and of the required path for the instrument would be delegated to national fiscal councils embedded in parliamentary work.

Obviously, the practical feasibility of these propositions is easy to challenge. They will face political opposition, if only because recognizing that the Stability and Growth Pact cannot be further improved is a giant step. In addition, they may require a new treaty, a step that policymakers are disinclined to take. Yet, they are derived from solid principles and informed by a growing body of evidence. As an original experiment, the monetary union could not have been perfect from the beginning. A number of changes have taken place in the wake of the sovereign debt crisis. Many more changes will have to be enacted before it can be seen as reasonably flawless. A better fiscal discipline regime is one of them. Rationally, it should happen before the next crisis but, admittedly, the experience so far suggests otherwise. This sad observation does not mean that the propositions are unrealistic.

References

Alesina, Alberto and Guido Tabellini (1990) "A Positive Theory of Fiscal Deficits and Government Debt", *Review of Economic Studies* 57: 403-14.

Alesina, Alberto, Carlo Favero and Francesco Giavazzi (2019) *Austerity*, Princeton University Press.

Ardagna, Silvia, Francesco Caselli, and Timothy Lane (2007) "Fiscal Discipline and the Cost of Public Debt Service: Some Estimates for OECD Countries", *The B.E. Journal of Macroeconomics* 7(1), Article 28.

Asdrubali, Pierfederico, Bent E Sorensen, and Oved Yosha (1996) "Channels of Interstate Risk Sharing: US 1963–90", *Quarterly Journal of Economics*, 111(4): 1081–1110.

Auerbach, Alan (2008) "Federal Budget Rules: The US Experience" Working Paper No. 14288 NBER.

Bayoumi, Tamim, Morris Goldstein and Geoffrey Woglom (1995) "Do Credit Markets Discipline Sovereign Borrowers? Evidence from U.S. States", *Journal of Money, Credit and Banking* 27(4-1): 1046-1059.

Beetsma, Roel and Xavier Debrun (2918) I*ndependent Fiscal Councils, Watchdogs or Lapdogs?*, VoxEU.org ebook.

Beetsma, Roel, Xavier Debrun, Xiangming Fang, Young Kim, Victor Lledo, Samba MBaye and Xiaoxiao Zhang (2018) "Independent Fiscal Councils: Recent Trends and Performance", Discussion Paper DP12826, CEPR.

Blanchard, Olivier (2019) "Public Debt and Low Interest Rates", AEA Presidential Address, *American Economic Review*, forthcoming.

Brunnermeier, By Markus K., Luis Garicano, Philip R. Lane, Marco Pagano, Ricardo Reis, Tano Santos, David Thesmar, Stijn Van Nieuwerburgh and Dimitri Vayanos (2016) "Breaking the Sovereign-Bank Diabolic Loop: A Case for ESBies", *American Economic Review, Papers and Proceedings* 106 (5): 508-512.

Caballero, Ricardo J., Emmanuel Farhi, and Pierre-Olivier Gourinchas (2017) "The Safe Assets Shortage Conundrum", *Journal of Economic Perspectives* 31(3): 29–46.

Cecchetti, Stephen G, Madhusudan Mohanty and Fabrizio Zampolli (2011) "The Real Effects of Debt", BIS Working Papers 352.

Cordes, Till, Tidiane Kinda, Priscilla Muthoora and Anke Weber (2015) "Expenditure Rules: Effective Tools for Sound Fiscal Policy." IMF Working Paper 15/29, International Monetary Fund, Washington, DC.

Darvas, Zsolt, Philippe Martin and Xavier Ragot (2018) "European Fiscal Rules Require a Major Overhaul", *Les notes du conseil d'analyse économique* 47.

Debrun, Xavier and Lars Jonung (2018) "Under Threat: Rules-Based Fiscal Policy and How to Preserve It", Working Papers 2018:29, Lund University, Department of Economics.

Debrun, Xavier, Xiaoxiao Zhang, and Victor Lledo (2017)"The Fiscal Council Dataset: A Primer to the 2016 Vintage", IMF, http://www.imf.org/external/np/fad/council

Drazen, Allan (2000) "The Political Business Cycle After 25 Years", in: B. S. Bernanke and K. Rogoff (Eds.) *NBER Macroeconomics Annual* 15: 75 – 138.

Eichengreen, Barry, Emilios Avgouleas, Miguel Poiares Maduro, Ugo Panizza, Richard Portes, Beatrice Weder di Mauro, Charles Wyplosz and Jeromin Zettlemeyer (2018) "Independent Report on the Greek Official Debt", *Policy Insight* 92, CEPR.

Eijffinger, Sylvester (2012) "Rating Agencies: Role and Influence of Their Sovereign Credit Risk Assessment in the Eurozone", *Journal of Common Market Studies*, 50(6): 912–21.

European Fiscal Board (2018) *Annual Report*, European Commission.

European Commission (2015) "Towards a European Deposit Insurance Scheme", *Five Presidents' Report Series* 1.

Eyraud, Luc, Xavier Debrun, Andrew Hodge, Victor Lledó, and Catherine Pattillo (2018a) "Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability", *IMF Staff Discussion Note* SDN/18/04.

Eyraud, Luc, Victor Duarte Lledo, Paolo Dudine and Adrian Peralta Alva (2018b) "How to Select Fiscal Rules, A Primer", *How-to Notes*, IMF.

Eyraud Luc, Anja Baum, Andrew Hodge, Mariusz Jarmuzek, Young Kim, Samba Mbaye and Elif Ture (2018c) "How to Calibrate Fiscal Rules, A Primer", *How-to Notes*, IMF.

Eichengreen, Barry, Emilios Avgouleas, Miguel Poiares Maduro, Ugo Panizza, Richard Portes, Beatrice Weder di Mauro, Charles Wyplosz and Jeromin Zettlemeyer (2018) "Independent Report on the Greek Official Debt", Policy Insight 92, CEPR.

Fall, Falilou, Debbie Bloch, Jean-Marc Fournier and Peter Hoeller (2015) "Prudent Debt Targets and Fiscal Frameworks", Economic Policy Paper 15, OECD.

Gros, Daniel and Ansgar Belke (2015) *Banking Union as a Shock Absorber Lessons for the Eurozone from the US*, CEPS Paperback, Brussels and Rowman & Littlefield International, London.

Gros, Daniel and Dirk Schoenmaker (2014) "European Deposit Insurance and Resolution in the Banking Union", *Journal of Common Market Studies* 52(3): 529-546.

Henning, C. Randall and Martin Kessler (2012) "Fiscal Federalism: US History for the Architects of Europe's Fiscal Union", Working Paper 12-1, Petersen Institute for International Economics.

Ioannou, Demosthenes and Livio Stracca (2011) Have Euro Area and EU Economic Governance Worked? Just The Facts", Working Paper 1344, ECB.

Koehler, Sebastian and Thomas König (2014) "Fiscal Governance in the Eurozone: How Effectively Does the Stability and Growth Pact Limit Governmental Debt in the Euro Countries?", *Political Science Research and Methods*: 1-23.

Kopits, George (2001) "Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?", Working Paper 01/145, IMF.

Kopits, George (2011), "Independent Fiscal Institutions: Developing Good Practices", *OECD Journal on Budgeting* 11(3): 1-18.

Kopits, George and Steven Symansky (1998) "Fiscal Policy Rules", Occasional Paper 162, IMF.

Krogstrup, Signe and Charles Wyplosz (2010) "A Common Pool Theory of Supranational Deficit Ceilings", *European Economic Review* 54(2): 273-281.

Larch, Martin, Paul van den Noord and Lars Jonung (2010) "The Stability and Growth Pact. Lessons from the Great Recession", Economic Papers 429, *European Economy*.

National Conference of State Legislatures (2010) "State Balanced Budget Provisions", *NSCL Fiscal Brief*.

New Zealand Government (2015) *An Introduction to New Zealand's Fiscal Policy Framework*, The Treasury.

Orphanides, Athanasios and John C.Williams (2005) "The Decline of Activist Stabilization Policy: Natural Rate Misperceptions, Learning, and Expectations", *Journal of Economic Dynamics and Control* 29(11): 1927-1950.

Philips, Andrew Q. (2016) "Seeing the Forest Through the Trees: a Meta-Analysis of Political Budget Cycles", *Public Choice* 168: 313–341.

Poterba, James and Ken Rueben (1999) "State fiscal institutions and the U.S. municipal bond market", in: Poterba, J., von Hagen, J. (Eds.), *Fiscal Institutions and Fiscal Performance*, University of Chicago Press, Chicago.

Reinhart, Carmen M. and Kenneth S. Rogoff "Growth in a Time of Debt" (2010) American Economic Review 100(2): 573-78.

Repetto, Luca (2017) "Political Budget Cycles With Informed Voters: Evidence From Italy", *The Economic Journal* 128: 3320–3353.

Schumacher, Julian, Christoph Trebesch, and Henrik Enderlein (2018) "Sovereign Defaults in Court", CEPR Discussion Paper No. 12777.

Seitz, Helmut (1999) "Subnational Government Bailouts in Germany", ZEI Working Paper B20.

Sgherri, Silvia and Charles Wyplosz (2016) "The IMF's Role in Greece in the Context of the 2010 Stand-By Arrangement", *Background Paper* 16-02/11, Independent Evaluation Office, IMF.

von Hagen, Jürgen and Ian Harden (1994) "National Budget Processes and Fiscal Performance", *European Economy Reports and Studies* 3: 311-418.

von Hagen, Jürgen, Massimo Bordignon, Matz Dahlberg, Bhajan S. Grewal, Per Petterson and Helmut Seitz (2000) "Subnational Government Bailouts in OECD Countries: Four Case Studies", Inter-American Development Latin American Research Network Working paper #R-399.

von Hagen, Jürgen, Ludger Schuknecht and Guido Wolswijk (2011) "Government bond risk premiums in the EU revisited: The impact of the financial crisis", *European Journal of Political Economy* 27: 36–43.

Wildasin, David E. (1997) "Externalities and bailouts: hard and soft budget constraints in intergovernmental fiscal relations", Policy Research Working Paper Series 1843, The World Bank.

Wyplosz, Charles (2011) "Debt Sustainability Assessment: Mission Impossible", *Review of Economics and Institutions*, 2(3): 1-37.

Wyplosz, Charles (2013) "Europe's Quest for Fiscal Discipline", *European Economy Economic Papers* 498.

Wyplosz, Charles (2018) "Fiscal Councils and Fiscal Rules: Complements or Substitutes?" in: R. Beetsma and X. Debrun (eds) *Independent Fiscal Councils: Watchdogs or Lapdogs?* VoxEU.org Book, CEPR, London.

2 Independent Fiscal Institutions in the European Union: Is Coordination Required?

Xavier Debrun[32]

1. Introduction

The European Union (EU) offers a rich set of processes, procedures and central institutions aimed at coordinating economic policies among its member states. Since the founding impetus of the 1950s, deepening integration in a growing number of areas (trade, finance, money) has magnified the spillovers of national policies and bolstered the economies of scale from certain common initiatives. Although greater integration made intergovernmental policy coordination increasingly desirable, the absence of a political union guided by a clear vision never made it easier to achieve. In the end, policy coordination within the EU has been shaped by gradualism and a pragmatic adherence to the subsidiarity principle. The result is frustratingly complex, with an array of interdependent policy instruments subject to different approaches ranging from pure delegation to the center (e.g. monetary policy, agricultural policy), binding rules (e.g. fiscal policy), peer pressure stirred by time-bound benchmarks (e.g. structural policies), and regular consultations held in the context of surveillance.

Since the launch of the single currency in 1999, perfecting fiscal policy coordination has mobilized considerable energy. The numerical rules embedded in EU law (the Excessive Deficit Procedure in the Treaty on the Functioning of the European Union and the Regulations forming the Stability and Growth Pact) have by and large failed to deliver the levels of fiscal discipline and stabilization required for a smooth functioning of the currency union. The two major reforms of fiscal governance (in 2005 and 2010) were well-intended but did not help enough, leaving the framework hopelessly complicated (e.g. Debrun and Jonung, 2019; and Deroose et al. 2018), and in urgent need of a third reform (e.g. Bénassy-Quéré et al. , 2018; or Christofzik et al., 2018).

That said, a critical and promising dimension of the 2010 amendments to fiscal governance was an increased reliance on *national*, rules-based fiscal frameworks to achieve the desired degrees of fiscal discipline and stabilization. The underlying argument is sound. Since fiscal policy remains inextricably linked to national politics, legitimacy sits there, and centrally enforced fiscal rules may lack the local ownership required to effectively tie the hands of policymakers or at least encourage them to behave. Homegrown fiscal frameworks might be more legitimate and stand a better chance to productively constrain fiscal discretion. For this to work, national frameworks had to be consistent with EU-wide rules, and some coordination in their design and

implementation had to take place. The necessary harmonization was codified in EU law through a 2011 Directive and a 2013 Regulation (part of the so-called "Two-Pack") applying to euro area countries.[33]

The present paper focuses on an intriguing dimension of those harmonized fiscal frameworks at the national level: the reliance on independent fiscal institutions (IFIs) to foster commitment to the rules (see Larch and Braendle, 2018; or Jankovics and Sherwood, 2017). The idea is to entrust "independent bodies" with monitoring compliance with national fiscal rules, advising on the activation of correction mechanisms and escape clauses associated with the rules, and producing or endorsing macroeconomic projections underlying the budget. Although EU law leaves ample room for interpretation as to the specific institutional format of these bodies, it seems clear that they echo the recent emergence of independent fiscal institutions (IFIs)—or "fiscal councils"—as part of leading international practice in the design of fiscal frameworks.[34]

While the injunction to give a role to independent bodies in national fiscal frameworks follows a global trend (see Beetsma et al. 2018), the limited efforts to harmonize their roles, functions and institutional models, and the absence of explicit coordination mechanism in their operations are more surprising. Although this may reflect the legitimate concern that IFIs must espouse the country-specific contours of fiscal decision-making (OECD, 2014), it is equally legitimate to wonder whether their effectiveness in the EU—and even more so in the euro area—context would not call for some form of coordination. In the end, national fiscal frameworks—including IFIs—are supposed to contribute to improved fiscal policy coordination, a vital dimension of euro area stability (see e.g. Bergin, 2000; and Debrun, 2000).

In 2016, the creation of the European Fiscal Board (EFB), an EU-wide IFI nested in the Commission itself, was a first step in concretely acknowledging the need for coordination, at least vertically between the center and the national IFIs, if not horizontally, among IFIs. However, the initial intention expressed in the Five Presidents Report (Juncker et al., 2015) to task the EFB with the "coordination" of national IFIs raised serious concerns. The risk that IFIs could be perceived as agents of a central agenda was in direct contradiction with the national ownership that is critical to their role in shaping national public debates about fiscal issues. In the end, the EFB's mandate includes a vague request to "cooperate" with national IFIs. However, the precise nature and form of such cooperation is yet to be fully fleshed out, although hard (or institutionalized) forms of coordination—that would imply joint decisions binding all IFIs—currently seem to be ruled out.

Three questions guide our analysis of coordination issues among IFIs in the EU. First, how do national IFIs really influence fiscal policies? Second, given the public good dimension of fiscal soundness in the EU, what does the answer to the first question imply in terms of potential coordination failures? Third, to the extent that such failures raise meaningful concerns, how should coordination be organized? After reviewing the specific functions and impact of national IFIs, we discuss the case for coordination among IFIs in the EU and between them and the center. Doing so, we take the current architecture of fiscal governance as given and ignore possibly superior, but certainly more ambitious, reforms of the central governance that might improve the effectiveness of EU rules (see e.g. Bénassy-Quéré et al., 2018).

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[33] A 2013 intergovernmental treaty containing the so-called Fiscal Compact confirmed these provisions, expanding them to 3 non-euro members (Bulgaria, Denmark, and Romania).
[34] A draft directive of December 2017 is unambiguous about the definition of independent bodies as good-practice fiscal councils of the type codified by the OECD (2014).

We conclude that the case for coordination exists at two levels. First, failing to support effective national IFIs in all countries would undermine a central underpinning of the 2010 fiscal governance reform, which is that government commitments to national rules are stronger than commitments to EU rules. Second, there could be significant costs to allowing open conflicts between national IFIs and the center regarding the monitoring of fiscal rules, the assessment of the forecasts underlying national budgets, and the existence of circumstances warranting either a correction of past budgetary slippages or the activation of escape clauses. The same concern applies to the normative assessments made by certain fiscal councils if they collide with the country-specific recommendations adopted by the European Council (under recommendation of the Commission) at the end of the European semester. Finally, the center's views on the desirable euro area fiscal stance may also create tensions with IFIs' assessments at the national level.

In the current setup, the EFB can only partly mitigate these risks. We discuss options along the trade-off between preserving national ownership and IFIs' independence on the one hand, and the avoidance of public conflicts on fiscal oversight, recommendations and the aggregate fiscal stance on the other. In all cases, the EFB could play a key role in ensuring a regular flow of relevant information between national IFIs and EU institutions.

The rest of this paper is organized as follows. Section II briefly reviews the typical functions of IFIs and discusses how they can potentially influence policy outcomes. This paves the way for Section III which focuses on IFIs in the euro area and assesses the costs of potential coordination failures. Section IV explores broad options to better coordinate IFIs activities without impinging on national ownership.

2. Independent Fiscal Councils: Rationale and Functions

2.1. Constraining Discretion and the Rise of IFIs

Four decades after Kydland and Prescott's (1977) seminal insights, the rules vs. discretion debate has converged on a broad consensus that even though strict rules-based policymaking is in most cases impractical, policymakers' discretion ought to be constrained.[35] One key reason is that pure discretion allows policymakers to overexploit macroeconomic policy instruments to extract short-lived gains, destroying the credibility of commitments to optimal policies (Barro and Gordon, 1983). Excessive inflation, large public deficits and procyclical fiscal policies invariably follow.

Over the years, formal macroeconomic frameworks have been developed to tame those policy biases. The underlying idea is to provide policymakers with the right incentives to deliver on socially desirable policies. Because monetary and fiscal policies are strongly interconnected, it has also been increasingly recognized that such frameworks had to be envisaged in a holistic fashion, encompassing both monetary and fiscal instruments (Castellani and Debrun, 2005; Combes et al. 2018).

Policy frameworks are typically made of two basic ingredients, rules and independent institutions, combined in varying proportions. After monetary rules proved ineffective in the face of volatile money demand, monetary policy was placed in the hands of politically independent central banks with a clear mandate to target inflation. Accountable central bankers are

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[35] By discretion, we mean policymakers' ability to adjust their instruments to respond to changing circumstances at any point in time.

constrained by the need to deliver on their mandate or face consequences; and today, formal rules play virtually no role in the conduct of monetary policy.

On the fiscal side, rules—in the form of numerical caps on relevant fiscal indicators—have remained the dominant approach to constrain discretion. The delegation of fiscal instruments to unelected officials remains anathema, if only because a budget is the financial translation of a political platform that elected policymakers are legitimately expected to implement. From a normative point of view, the primarily distributive nature of fiscal policy and the lack of consensus on the objectives it should pursue also preclude the delegation of fiscal instruments to unelected officials (see Alesina and Tabellini, 2007; and Calmfors and Wren-Lewis, 2011). In recent years, however, independent institutions playing mainly an oversight role have emerged to foster policymakers' commitment to fiscal policy rules.

The OECD (2014) defines independent fiscal institutions as "*publicly funded, independent bodies under the statutory authority of the executive or the legislature which provide non-partisan oversight and analysis of, and in some cases advice on, fiscal policy and performance.*" Thus, unlike early academic proposals (surveyed in Debrun et al., 2009), real-world IFIs do not exert any formal authority over fiscal policy. Their role is only to inform, analyze, and possibly also advise.[36]

With the notable exceptions of Austria (1970), the Netherlands (1945), and the United States (1974), the rise of IFIs is a recent phenomenon. Most of them were created after the 2008 global financial crisis (Figure 1). Interest in IFIs largely stems from the mixed experience with fiscal rules as an effective mean of achieving sound policies and the post-crisis efforts by governments to strengthen commitments to sustainable public finances. It is, however, notable that most existing IFIs identified by the IMF at end-2016 were in the EU, pointing to the role of external incentives such as fiscal reforms agreed in the context of bailout packages (e.g. Hungary, Portugal and Ireland) or the need to comply with the new common requirements for national fiscal frameworks.

Figure 1. Number of Independent Fiscal Councils in the World (end-2016)
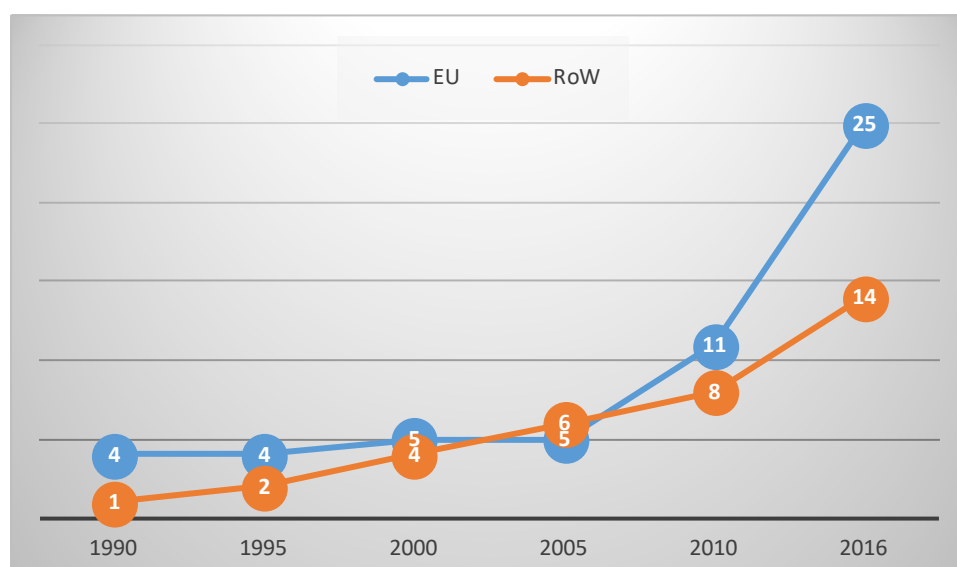
Source: IMF Fiscal Councils Dataset (2017).

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[36] The jury is still out on the desirability of any advisory function because it can bring the council dangerously close to the political fray.

The mandate of IFIs, their institutional format, and the tasks they perform vary greatly across countries, reflecting the idiosyncrasies of national budget processes, history and political customs. However, all IFIs ultimately strive to provide objective information and adequate incentives to elected policymakers, to those they account to (voters), and to all other stakeholders in a country's public finances, including international or supranational institutions with a surveillance mandate, and of course, investors.

A natural question is how an institution that does not control any fiscal lever could constrain policy discretion and encourage better fiscal outcomes. The emerging consensus is that the effectiveness of IFIs rests on their ability to enhance fiscal transparency. By publicly providing objective information on the state of public finances, the effects of current and announced policies, or potential deviations from prior commitments, an IFI can raise the reputational costs of unsound policies, untenable promises, and attempts to creatively embellish public accounts or hide policy mistakes. Better-informed voters can more effectively reward sound policies and sanction bad ones, whereas market participants can form a more accurate view of a sovereign's creditworthiness and price it accordingly. That said, the specific channels through which IFIs can potentially influence policy outcomes remain relatively diffuse, and therefore hard to theorize or to identify statistically (see Beetsma et al. 2017, 2018).

Beyond bolstering market discipline and democratic accountability, IFIs can also play a useful role in the budget process by enabling checks and balances *within* the political system. For instance, an IFI providing objective and credible information on the state of the economy and expected tax revenues can facilitate the centralization of budget requests from line ministries, mitigating pressures to produce optimistic revenue forecasts that could accommodate politically tempting spending requests. In a context where fiscal rules serve as a reference for budget preparation, independent views on key parameters of a rule, such as the structural budget balance, the need to correct past slippages or the existence of conditions requiring the activation of an escape clause can only help a proper implementation of the rule.

That said, the transparency-reputation-market-discipline nexus at the root of IFIs' effectiveness should not be viewed as a panacea against unsound fiscal policies. First, the political context matters a great deal when it comes to the impact of fiscal transparency on policy choices. For instance, if the likelihood of winning an election is primarily shaped by other factors than policymakers' competence in managing public finances, transparency could actually encourage financially irresponsible initiatives targeted at winning votes to offset the adverse effect of revealed competence issues (Beetsma et al. 2017). Second, the mapping between the many possible sources of deficit bias and the typical tasks and roles of IFIs is far from clear-cut and remains open to discussion (Calmfors and Wren-Lewis, 2011). Third, as the explosion of social media suggests, information overload can be as damaging the lack of information. Government budgets are already subject to many different formal and informal "independent" assessments and the voice of an IFI might just be viewed as adding to the noise rather than distilling an audible signal.

2.2. What Do IFIs Do?

The remit of IFIs often reflects the specific circumstances in which they were born. For instance, the establishment of the US Congressional Budget Office (CBO) was part of an effort by the legislative branch to reclaim its constitutional control over the public purse, a control that had been gradually eroded by a better-informed executive. This explains why two core functions of the CBO are to provide a non-partisan costing of draft laws and to assess the sustainability of public finances through long-term projections. In the United Kingdom, the delegation of

forecasts to the Office of Budget Responsibility (OBR) followed years of optimistic forecasts in a context of weak commitment to a fiscal rule.

In the EU, even though not all officially recognized independent bodies are fiscal councils in the sense defined above,[37] IFIs' mandates are well aligned on EU law requirements. Specifically, all 23 EU countries with at least one fiscal council as of end-2016 have mandated such an institution to monitor the implementation of fiscal rules. Most member states (20) have also tasked a fiscal council to assess the quality of official forecasts used in budget preparation, whereas an IFI directly contributes to the forecasting rounds in 8 countries. However, according to the IMF, only 3 countries have either an obligation or a consistent practice to use IFI's own forecasts in elaborating their budget. Interestingly, two thirds of the member states allow or request the IFI to make normative analyses, including specific recommendations, a greater proportion than among non-EU IFIs. Last but not least, IFIs prepare long-term fiscal sustainability assessments in about three quarters of EU members with such an institution.

Figure 2. Remit of IFIs in the European Union
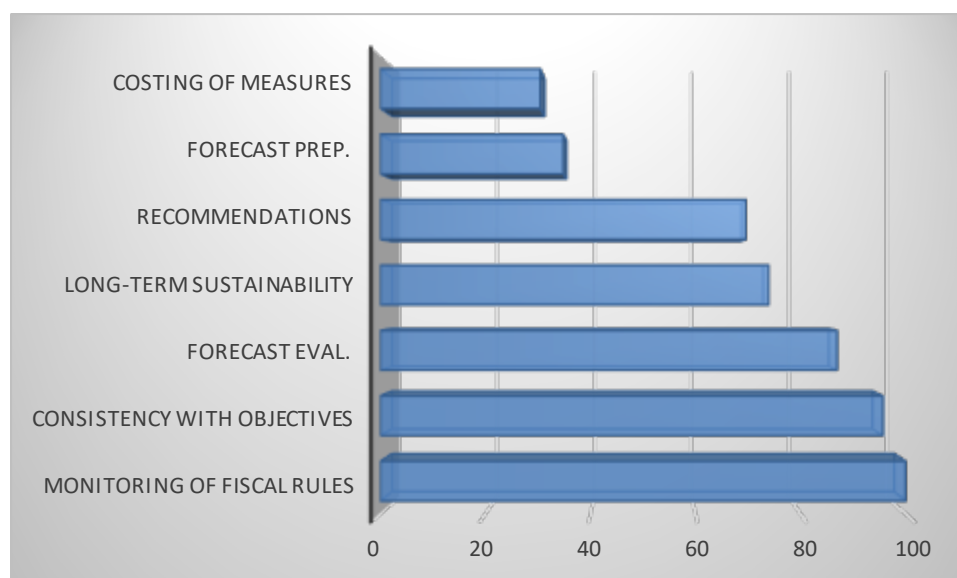
Note: Numbers expressed in percent of countries with at least one IFI.
Source: IMF Fiscal Councils Dataset (2017).

2.3. IFIs Effectiveness: The Central Role of the Public Debate

As mentioned earlier, there is still preciously little evidence on the effectiveness of IFIs. In addition to having too few observations to establish robust statistical linkages, the transmission channels from the activities of an IFI to policy outcomes are multiple and diffuse. The existing evidence is nevertheless encouraging in the sense that conditional correlations have the "right sign." For instance, Beetsma et al. (2018) use panel regressions to suggest that the presence of an IFI has a beneficial impact on the accuracy of fiscal forecasts—although not on macroeconomic forecasts, confirming early insights from Debrun and Kinda (2017)—as well as on compliance with fiscal rules.

Another empirical approach explored by Debrun et al. (2017) is to assess the media impact of fiscal councils' activities and then to check whether a greater impact can be systematically

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[37] In the list provided by Jankovicz and Sherwood (2017), only 6 independent bodies in 5 different countries are not reported as IFIs in the 2017 vintage of the IMF Fiscal Council Dataset; and only one of those countries has no recognized IFI.

connected to fiscal performance. Focusing on a small number of long-standing and well-established IFIs, they conclude that while IFIs tend to be present in the media at times when they should indeed be communicating—e.g. in case of significant budgetary slippages—an adequate media presence does not appear to materially affect subsequent fiscal outcomes. In the EU, a large majority of IFIs consider that their potential influence on the budget process operates through a strong media presence (Figure 3). This capacity to shape the public debate on fiscal policy is important given that EU fiscal councils often lack other formal avenues to influence policymakers, such as effective "comply or explain" mechanisms.

Figure 3. Channels of Influence of EU Fiscal Councils on the Budget
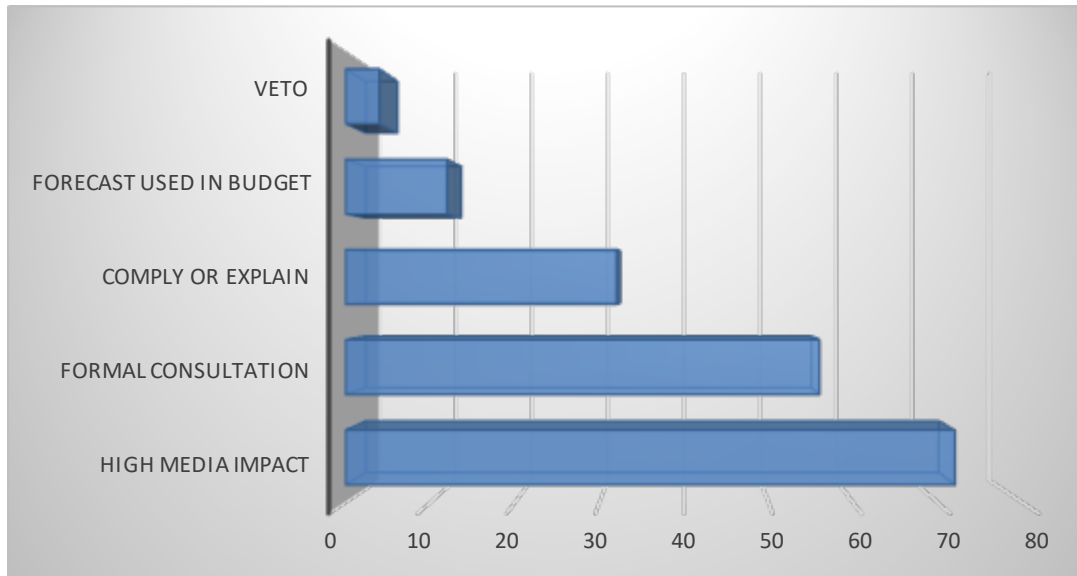
Note: Numbers expressed in percent of the number of IFIs.
Source: IMF Fiscal Councils Dataset (2017).

Economists and practitioners agree that a strong presence in the public debate is instrumental for IFIs' effectiveness. On the theoretical side, Beetsma et al. (2017) show how IFIs' ability to send clear and objective signals on the state of public finances and the adequacy of fiscal policy can mitigate conventional sources of deficit bias by enabling voters to distinguish between good and bad policies. This encourages any incumbent concerned with re-election to behave, and voters to select more competent policymakers on average.

On the practical side, developing an effective communication strategy has been an early concern in the growing community of independent fiscal institutions.[38] In a world already flooded with information and commentaries of all kinds, the golden rule for good IFI communication is to boost the "signal-to-noise ratio". This means that they should talk only when they must, and on topics for which they can claim to be a reliable, independent source. Thus, maximizing the signal-to-noise ratio implies that timely, focused, and impactful engagement with the public should be preferred to frequent interventions about everything possibly related to the government budget (Debrun et al. 2013).

A legitimate question is whether all fiscal councils have been equally successful in influencing the public debate. As mentioned earlier, IFIs form a highly heterogenous group with varying degrees of operational independence and capacities, and one would expect that patterns of engagement with the public on fiscal issues could vary substantially from one institution to the other.

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[38] See for instance Sunshine (2018).

As a simple, comparable metric for an IFI's influence on the national public debate, we analyze data on the number of Google searches for 3 well-established IFIs generally recognized as being close to international leading practice: the Office for Budget Responsibility (or OBR, United Kingdom), the Netherlands Bureau for Economic Policy Analysis (better known under its Dutch acronym of CPB), and the Independent Authority for Fiscal Responsibility (or AIReF in Spain). These three councils are also sufficiently different in their mandates, activities and history to exhibit a priori distinct patterns in their cyber presence. The data capture Google searches originating in each individual country either spelling out the IFI's name in the country's language, in English, or using its conventional acronym (whichever yielded the most meaningful time series). All the series show the number of hits as a percentage of the maximum reached over the period under consideration.

The data for the OBR, which covers the last 5 years of weekly Google hits, suggests a highly focused communication stirring public interest right around the critical times of the budget process (Figure 4). The top panel exhibits marked spikes around the autumn (November, identified by a diamond) and spring (March, identified by a triangle) budget statements. Since 2017, all the measures and draft legislations for the yearly cycle are announced in a single package during the autumn statement only, which helps explain why the diamonds have since then peaked much higher than the triangles. Finally, the dots identify much more modest spikes corresponding to the publication of OBR's sustainability analysis and fiscal risk statements (both in July).[39]

The bottom panel of Figure 4 corroborates the impression that the public interest in the OBR occurs at times when the issue of government deficits (search item: "government budget balance") also seems to get a lot of attention from internet users. However, the OBR's carefully planned communication also means that it does not seem to opportunistically intervene (or at least generate public interest) each time the issue of government budget balances somehow "makes the buzz."

Figure 4. Internet Presence of the OBR in Google Searches (weekly, 2014-2018)

A. Search for "Office for Budget Responsibility" in the United Kingdom

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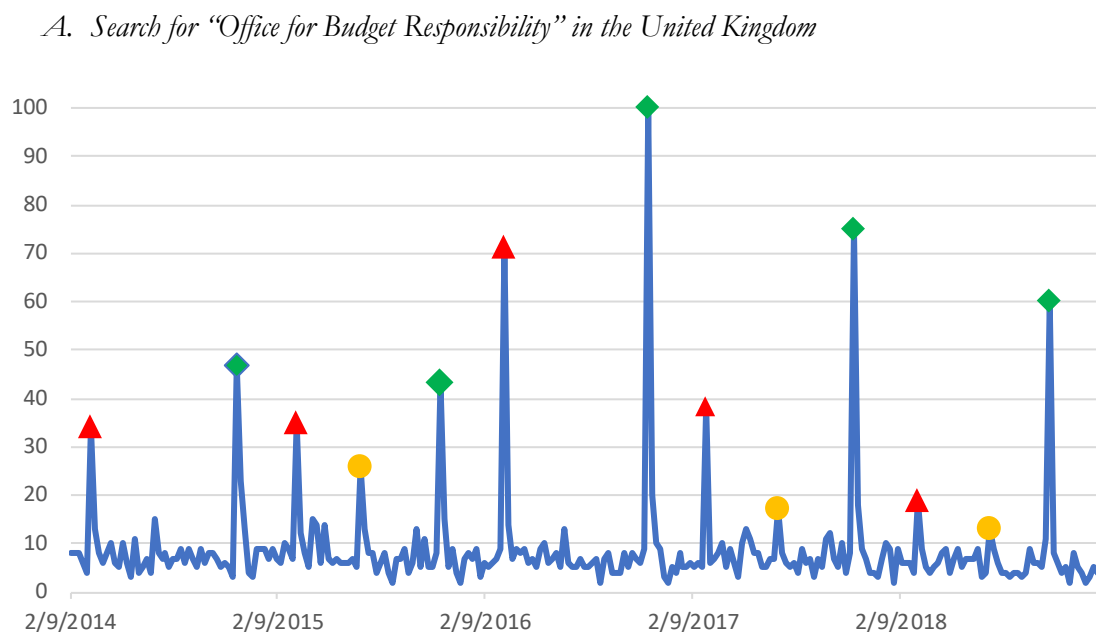
[39] The July 2015 yellow spike is more pronounced, probably reflecting the supplementary budget introduced at that time.

B. Search for "Government budget balance"
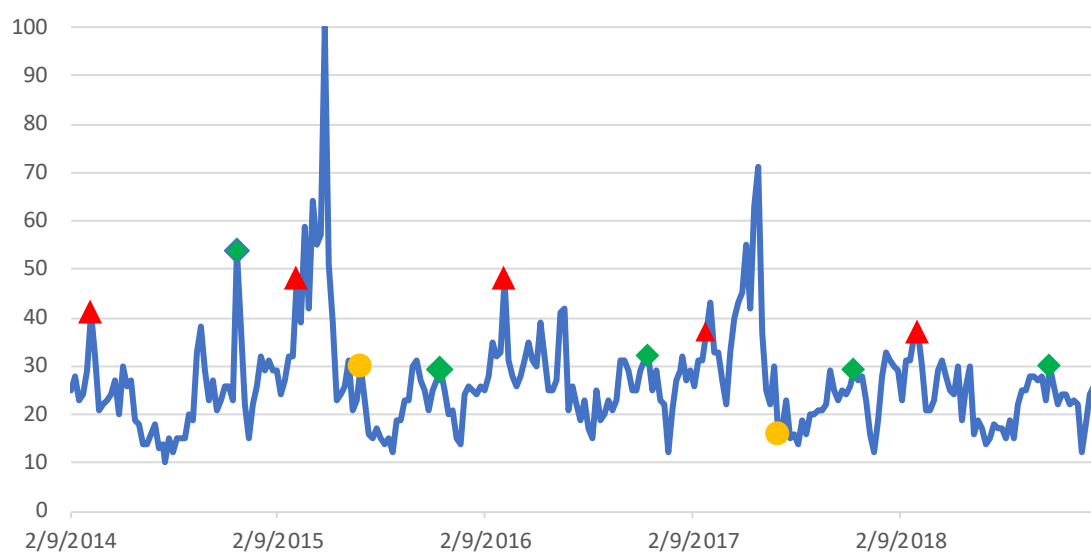
Note: Numbers expressed in percent of the maximum number of Google hits over the period.
Source: Google Trend (February, 2019).

The case of the Dutch CPB would seem a priori less clear cut (Figure 5, top panel). However, the time series exhibits a very high volatility inherent to the CPB much-publicized costing of electoral platforms ahead of general elections. As the CBP has operated since the mid-1940s, we retrieved the longest time series of Google searches available (monthly data going back to 2004). Very sharp peaks in internet users' interest for the CPB systematically occur the month preceding general elections—when the report "Charted Choices" is published and identified on the Figure by a diamond—and the month of the elections—identified by a triangle. Given the dimension in which Google presents the data (in percent of the maximum observed over the entire sample), these peaks dramatically compress the rest of the series. However, aggregating monthly outcomes over the 15 years available points to a stable seasonal pattern in which the higher number of hits observed in March and September of each year coincides with the CPB's main forecast releases (Figure 5, bottom left panel).

One last observation about the Google metric of CPB's cyber presence is a pronounced downward trend, particularly after 2013. Even the spike generated by the 2017 elections did not bring Google searches above the level recorded in any year between 2004 and 2013. While such erosion could be due to multiple factors, including the fact that the CPB may have built a growing cohort of regular users who do not need to search for its website, it suggests that IFIs' presence in the public debate should not be taken for granted and needs to be nurtured.

Unlike the CPB, the AIReF is a rather new institution that had to quickly step up to a broad mandate, including the surveillance of Spain's complex web of subnational governments. And unlike the OBR, the AIReF is mandated to publish a large and varied portfolio of reports falling into no less than 11 different categories.[40] These features may explain the fairly fickle pattern of AIReF cyber presence displayed in Figure 6.

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[40] These include: Opinions, Studies, Spending Reviews, Recommendations, Working Papers, Occasional Papers, Speeches by the President, Annual Report and Strategic Plan, Minutes, Resolutions, and Focus.

The risk associated with high frequency interventions in the public debate is that information overload can erode the signal-to-noise ratio of IFI communication. For instance, Curristine et al. (2013, p. 36) warn that "[…] *a fiscal council constantly out in the public with a running commentary, disconnected from important parliamentary budget preparation deadlines would raise doubts about its ability to contribute to the debate, when it is most needed.*" Such risk seems unlikely to have materialized for AIReF, however. The Google metric for internet users' interest has steadily risen, doubling since AIReF's creation (according to the 6-month moving average of the indicator). This may suggest that AIReF outputs (and the way it communicates about them) make its interventions in the public debate sufficiently distinct to dispel the impression of a "running commentary" and to attract more attention over time.

Figure 5. Internet Presence of the CPB in Google Searches (monthly, 2004-2018)

A. Search for "Bureau for Economic Policy Analysis" in the Netherlands
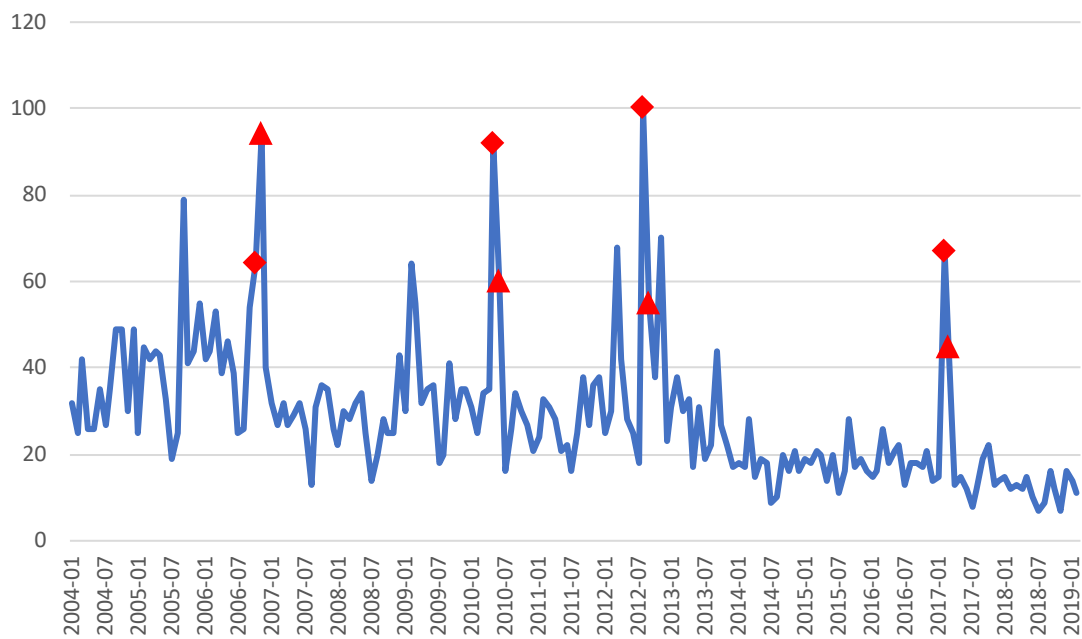
B. *Monthly pattern*
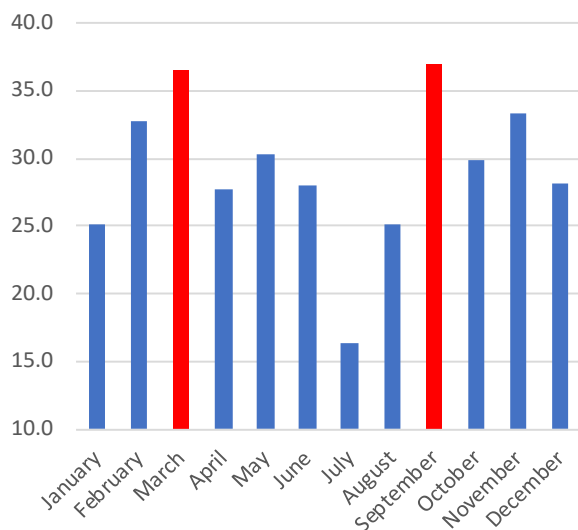
C. *Yearly average*
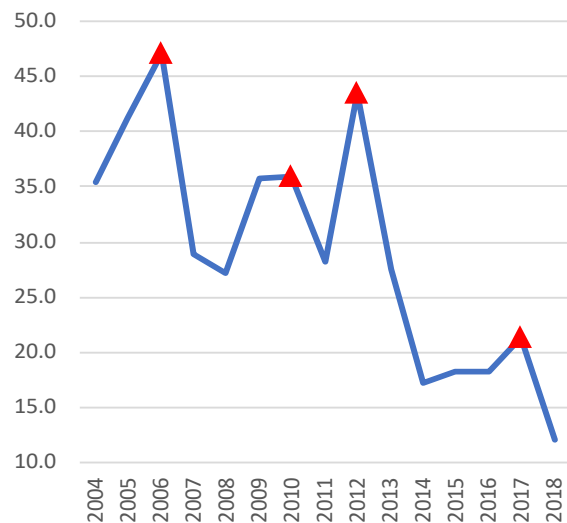
Note: Numbers expressed in percent of the maximum number of Google searches over the period.
Source: Google Trend (February, 2019).

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Figure 6. Internet Presence of the AIReF in Google Searches (weekly, 2014-2018)

Note: Numbers expressed in percent of the maximum number of Google hits over the period.
Source: Google Trend (February, 2019).

2.4. Summary

The ultimate goal of IFIs is to strengthen governments' commitment to fiscal responsibility, which, in the EU, is enshrined in formal fiscal policy rules.[41] To do so, IFIs perform a range of activities that raise the costs for governments to breach those rules. Tasks include providing direct inputs to the budget process (e.g. unbiased macroeconomic and budgetary forecasts, estimates of structural balances, costing of certain leg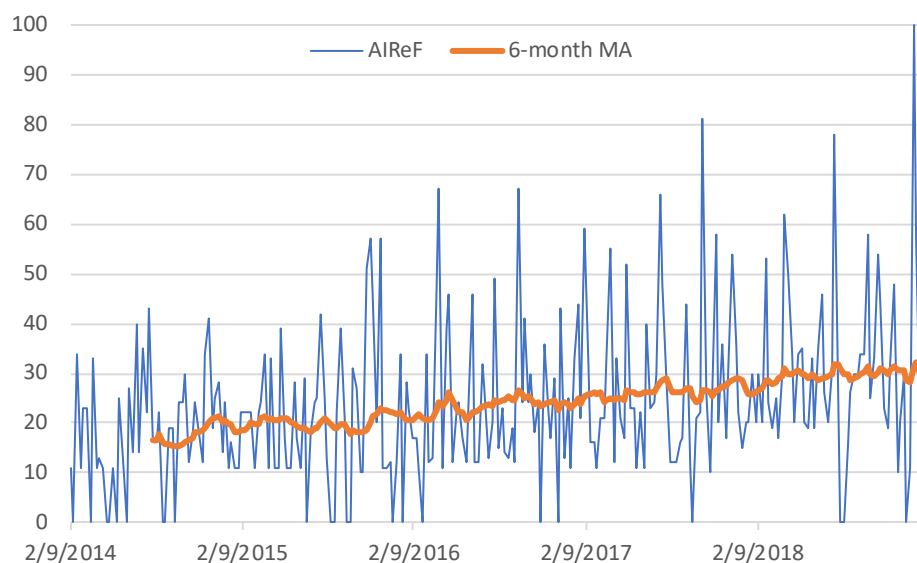islative initiatives), public assessments of fiscal performance (including a formal monitoring of compliance with fiscal rules, evaluations of the likelihood to reach official goals with announced policies, or assessment of long-term sustainability), and other non-partisan inputs to the public debate about fiscal policy (including sometimes specific policy recommendations to deliver on official objectives).

In the end, as fiscal councils do not control any policy lever and often do not benefit from direct involvement in decision-making, their influence on the public debate is paramount to affect policy outcomes. If they can be ignored at no cost for the government, chances are that they will be ignored and hopelessly ineffective. Although IFIs' realm is by essence as local as fiscal politics, EU membership gives a transnational dimension to their activities, raising the risk of costly coordination failures. The next section discusses these potential failures, building a case for some form of EU-wide coordination among IFIs.

3. IFIs in the EU context: Cooperation vs. Coordination

In the EU, IFIs' success in fostering political commitment to harmonized rules-based frameworks has a public good dimension. The argument is especially relevant in the euro area, where the stability of the common currency requires sustainable and stabilizing fiscal policies in every single member state. It is important to recall at the outset of this section that we use the term coordination in a broad sense that includes "soft" forms of voluntary cooperation such as regular exchanges of views.

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[41] Note that coexistence of rules and IFIs is a global norm, not just an EU-specific phenomenon (Debrun and Kinda, 2017).

Two broad types of coordination failures could undermine the effectiveness of fiscal policy oversight by national IFIs and the Commission. The first is an insufficient harmonization of IFIs' objectives, functions and capacities across countries. A system where only a fraction of IFIs perform as intended would negate the public good dimension of effective national frameworks at the EU level. The second type of coordination failure would take the form of recurrent, meaningful, and, by definition, public disagreements between the Commission and local IFIs. Such cacophony would not only weaken the signaling power of IFI communication, but also undermine the Commission's role in implementing the Stability and Growth Pact and orchestrating fiscal coordination in the context of the European Semester, notably through country-specific recommendations.

3.1. Insufficient IFI Harmonization

Achieving some convergence among national IFIs towards best international practice would be desirable for all. The Commission would appreciate stronger national commitments to EU-compatible fiscal frameworks, and IFIs would gain broad acceptance and credibility more quickly, which is particularly valuable for new institutions.

However, there are signs that harmonization may be too low. The 2011 Directive and the Two-Pack only mandated some key elements of independent bodies' remits but failed to flesh out even the most basic elements of best practice in designing and operating IFIs, including guarantees of non-partisanship and independence, access to information, ringfenced funding, and staffing commensurate to tasks (see von Trapp and Nicol, 2018). A draft Directive of December 2017 "for strengthening fiscal responsibility" comes across as an official acknowledgement that more could indeed be done to bring every "independent body" closer to a best practice IFI (see Art. 3, par. 7). However, at the time of writing, there appears to be no political appetite for the draft Directive.

Despite the convergence in remits sought through EU law, the EFB (2018) recently observed that capacities to deliver may vary significantly across countries. Horvath (2017) documents the great heterogeneity among EU IFIs in key dimensions usually thought to shape their effectiveness. While local constraints and preferences can partly explain such heterogeneity—a healthy manifestation of national ownership—they cannot explain it all. A cursory look at the data suggests that several recurring issues could undermine IFIs' effectiveness, including insufficient capacities (funding and staff), gaps in guaranteed access to information, and a lack of formal avenues for engagement with policymakers (executive of legislature).

As illustrated in Figure 7 (panel A), the median staff size (including management) of an IFI in the EU does not exceed 12 full-time equivalents, with the largest numbers explained by historically broad mandates in some of the older institutions in the Netherlands, Denmark, and Belgium. *De jure* guarantees on access to relevant information—consisting of a memorandum of understanding backed by specific legal provisions—are also lacking in many countries. Specifically, 5 countries have no guarantee at all (score 0 in Figure 7-panel B), 4 rely on a memorandum only (score 1), and 5 benefit from legal safeguards but have no specific memorandum in place to flesh out the legal provision (score 2). Finally, a third of EU IFIs cannot count on any structured channel of engagement with policymakers, such as an effective comply-or-explain provision[42] and regular hearings, while both mechanisms are simultaneously available to only a quarter of them (Figure 7, panel C).

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[42] Jankovics and Sherwood (2017) offer a somewhat more benign view on comply-or-explain practices than ours, which rely on IMF data. See also EFB (2017).

3.2. Cacophony

The limitations on direct means of political traction for IFIs put a premium on their ability to shape the public debate through strong media presence and effective communication. This is precisely where the second type of coordination failure can arise because the European Commission and each national IFI share the responsibility to oversee national fiscal policies.

Any oversight function involves a significant dose of judgment and uncertainty, making divergences of views beyond honest disagreements among independent experts quite likely. Indeed, the Commission and local fiscal councils work with different information sets, and fulfill specific mandates giving them different perspectives on political objectives and constraints facing national policymakers. Unlike national IFIs, the Commission is the core player in annual policy coordination in the context of the European Semester, not to mention the enforcement of the Stability and Growth Pact, whose provisions are reflected in one way or another in national fiscal rules. Thus, compared to a local institution, the Commission might pay greater attention to Union-wide considerations such as the euro area fiscal stance and its impact on the area's balance of payments, the exchange rate of the euro, and ultimately, its possible repercussions of the common monetary policy.

Figure 7. EU Fiscal Councils: Same Expectations, Heterogeneous Means

A.   Staff resources (number of FTE, including management)
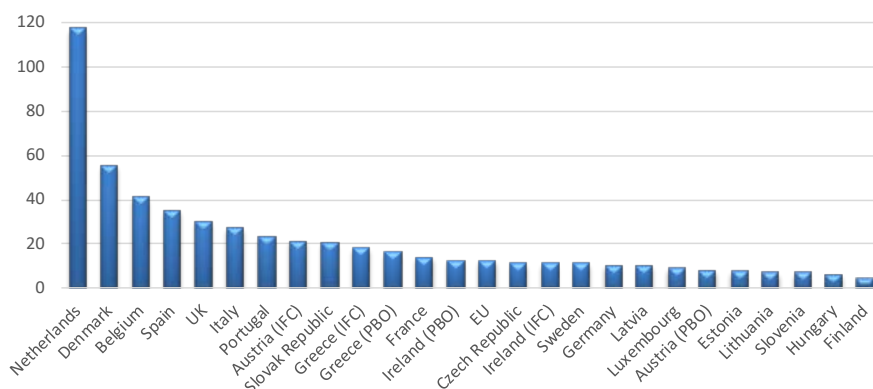
B.   Guarantees on access to information
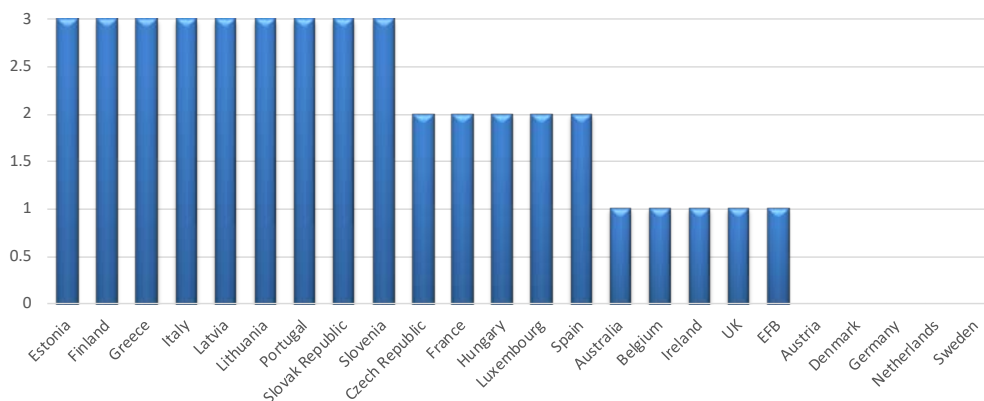
C. Structured engagement with policymakers
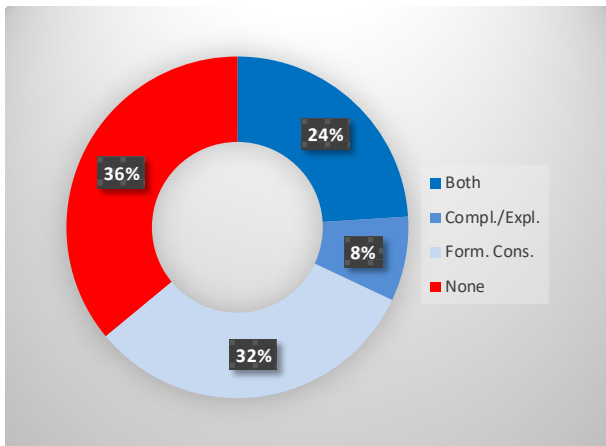
Sources: OECD IFI Database (2018), IMF Fiscal Council Dataset (2017), and author's calculation.
Notes: In Panel B, a score of 1 indicates the existence of a memorandum of understanding only, a score of 2, a legal guarantee but without such memorandum, and a score of 3, a memorandum backed by legislative guarantee. In panel C, the figure shows the percentage of EU IFIs benefitting from formal consultations with policymakers ("Form. Cons."), a comply-or-explain requirement ("Compl./Expl."), and a combination of the latter two ("Both").

Diverging views between a fiscal council and the Commission on the adequacy of fiscal policy could create undesirable cacophony in national public debates, possibly undermining the credibility of both institutions and jeopardizing the implementation of fiscal rules. For national IFIs, cacophony could blur the public signals they rely on to influence policy outcomes. Certain conflicts could carry the suspicion that the IFI is either an agent of Brussels or a loyal subject of its sovereign (i.e. under local political influence). Either way, its independence would be questioned. For the Commission, recurrent public disputes with IFIs could weaken its traction at the national level, working against the initial intent to increase EU rules ownership through EU-friendly national frameworks.

Several sensitive areas can easily be anticipated as possible battlegrounds. First, cacophony could arise from diverging assessments of the quality of macroeconomic and budgetary forecasts, notably if the Commission and the fiscal council do not communicate in synch and/or use divergent methodologies. Particularly damaging would be a situation where the forecasts produced by an IFI and used by the government would be deemed overoptimistic by the Commission. Second, different perspectives on policymakers' incentives and binding constraints could feed differences in assessing the need, magnitude and timing of activating correction mechanism, escape clauses, or invoking "other relevant factors" in case of significant deviation from agreed objectives. Again, this could not only loosen the link between the EU rules and their national counterpart, but also undermine IFIs independence by subjecting them to a form of comply-or-explain relationship with the Commission. Third, conflicts could arise in the context of the policy recommendations emanating from the European Semester annual policy coordination exercise. They could be particularly damaging for national IFIs mandated to formulate normative assessments and recommendations. Once again, divergences in available information and different emphasis—e.g. a greater role for euro-area fiscal stance considerations on the side of the Commission—could put IFIs and the Commission on a collision course.

Now, it bears emphasizing that "cacophony" in this context means *preventable noise* stemming from different information, methodologies or communication strategies, not substantiated disagreements emanating from different preferences, degrees of risk-aversion, or other factors shaping one's judgment. Clearly, the political nature of the Commission/Council tandem has the potential to create divergences with independent institutions at the national level; and IFIs—

including the EFB—should be expected to disagree from time to time with national and supranational political bodies. In the end, the idea is to avoid conflicts that obfuscate the public debate and weaken democratic accountability, not those that are inherent to rich and well-informed discussions about fiscal issues.[43]

3.3. Evidence

While conceptually plausible, there is only anecdotal evidence about the concrete relevance of these coordination issues, and the extent to which they can undermine the role of IFIs in EU fiscal governance. On the lack of harmonized practice, the EFB (2018) noted significant differences in the remit and constraints faced by IFIs in critical areas such as the preparation of macroeconomic and budgetary forecasts, the timing and coverage of IFI assessments, and their access to information. This results in varying levels of IFI activity, with certain institutions remaining largely silent regarding the implementation of fiscal rules and the related compliance risks, while others are more vocal, although not necessarily effective.

On the risk of cacophony, the EFB (2018) noted information asymmetries between the IFIs and the Commission and identified as a "coordination issue" the fact that IFIs were not directly involved in discussions between the Commission and national governments. Whether this would be desirable or even feasible is not the point. The fact is that conditions are in place for IFIs and the Commission to create unhelpful noise in the public debate. Jankovics and Sherwood (2017) provide one clear example of cacophony that could be symptomatic of more to come. In a November 2016 report, the Irish IFI had pointed out a risk of non-compliance with the EU expenditure benchmark, only to be sternly reminded by the Finance Minister that the Commission had already deemed the expenditure plans in questions "*broadly compliant with the SGP.*"

4. Coordination and its Forms

The potential coordination failures discussed above are significant. Should they materialize on a regular basis, the EU would not draw the full potential of the 2010 reform of fiscal governance, and at the national level, many IFIs could be perceived as part of the noise around fiscal issues, with a clear risk to fall into irrelevance. This section first discusses desirable forms of coordination, noting that they involve a horizontal and vertical dimension. We then turn to a brief discussion as to how such coordination could be organized concretely.

4.1. Forms of Coordination

Policy coordination can take many forms. At one end of the spectrum, decisions are explicitly centralized. At the other end, players exchange relevant information about their respective objectives and constraints based on a common understanding of spillovers and interdependencies, the hope being that cooler (and better-informed) heads prevail before a preventable conflict erupts. The choice for a specific coordination model is dictated by the trade-off between the intensity of spillovers (and/or scale economies associated with centralization) and the preferences of each player. For instance, monetary policy was centralized because the spillovers from misaligned exchange rates and egoistic monetary policies were too strong to be compatible with a single market; but tax policies, which are distributive by nature and close to national politics remained in national hands, subject to more limited harmonization. Sometimes also, national sensitivities are so acute that policies that should be centralized by virtue of any rational economic argument remain hopelessly national: defense is a case in point.

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[43] I am grateful to Cinzia Alcidi for encouraging me to clarify this point.

In the case of EU IFIs, the terms of the trade-off unambiguously call for soft forms of coordination. First, national anchorage is paramount. Effective IFIs must be as local as fiscal politics. At the same time, they must be fiercely independent to be credible and audible in the national public debate. Thus, perceived pandering to either national politics or the central agenda of EU institutions would be toxic for any IFI.

Second, given the nature of the link between IFI activities and fiscal policy outcomes, conflict avoidance or mitigation can go a long way through soft forms of coordination, including regular and structured information sharing, benchmarking (e.g. in terms of distance from best practice), and peer pressure. Because a central function of IFIs is to shape the public debate on fiscal issues, substantiated disagreements are inherent to any debate, and coordination should not mean suppressing disagreements altogether. The bottom line is that mitigating coordination failures could be done by establishing explicit channels of information exchanges and by forging a consensus on aspects of international best practice that EU IFIs should aim at.

Two dimensions of coordination are relevant and should be made mutually consistent. First, information should flow *vertically* between each national fiscal council and the Commission, to the benefit of both institutions. Unless obvious confidentiality issues arise—such as for certain micro-simulations models of tax revenues or market-sensitive material on debt management strategies—all information deemed relevant for effective fiscal oversight should be shared. Preventing major informational asymmetries between the two institutions is indeed essential to reduce the risk of cacophony.[44] Bilateral memorandums of understanding could govern the timing and contents of such regularly scheduled exchanges. Lower-frequency and more ad-hoc dialogue on methodologies and approaches could also be organized to further reduce the risk of cacophony. For instance, the Commission could clarify how it implements surveillance of the country in the context of the fiscal governance framework, whereas the Commission's own oversight work could benefit from the council's deeper knowledge of local constraints, customized statistical methodologies, and institutional specificities.

Second, information should flow *horizontally* among IFIs. With many new institutions taking on key responsibilities in a complex governance system, there are obvious benefits to disseminating good working practices both as regards internal processes as well as the interactions with key stakeholders (i.e. the national government, the Commission, the general public, investors,...). Absent a centralized effort to further harmonize the role of IFIs, a network gathering all officially recognized independent bodies could offer a formal forum for such exchanges, and beyond that, a venue for sui generis peer pressure (emulation) and for benchmarking good practice in the specific context of EU (Calmfors and Wren-Lewis, 2011).

The overall consistency of the system would require regular dialogue between IFIs as a group and the Commission. This is where the EFB could facilitate coordination, acting as a neutral umpire to organize regular engagement with the Commission. Through these interactions, IFIs could provide first-hand, granular advice on ways to plug eventual gaps in the national leg of the fiscal governance framework, including the possible need for centrally-driven harmonization of IFIs' remits, operational independence (including resources), and modes of engagement with national governments. Beyond suggesting institutional reforms, the group could also share common problems encountered in the implementation of budgetary surveillance and bring it to the Commission's attention.

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[44] One would presume that the Irish example of cacophony mentioned earlier could have been avoided had an open discussion about the expenditure benchmark taken place between the IFI and the Commission staff.

That said, there is only so much dialogue, information sharing, and peer pressure can do. One specific area that may call for somewhat "harder" forms of coordination concerns formal recommendations to national governments. Not all IFIs issue such recommendations and they may not necessarily overlap with those prepared in the context of the European Semester. However, it is not hard to imagine that conflicting or sufficiently differentiated recommendations to national governments could weaken their traction on policymakers. Given the rather low take-up of recommendations issued at the end of the European Semester (Darvas and Leandro, 2015) and the need for many new IFIs to establish credibility, avoiding ex-ante divergences on recommendations would seem particularly important. This may require the IFI and the Commission to agree ex-ante on a division of labor in the formulation of such recommendations or on a rule specifying the circumstances in which one institution must align its fiscal recommendations on the other. Of course, should the Council ultimately choose not to follow the agreed recommendations submitted by the Commission, conflict could still arise, but its genesis would be transparently political.

To conclude, Table 1 disaggregates coordination issues by task typically assigned to IFIs. As their remit can vary depending on the source of deficit bias they are expected to tackle, the extent and nature of the vertical dialogue with the Commission would have to be tailored to each country.

Table 1. IFI Coordination in the EU: A Granular View

Cause of deficit bias	Task of IFI	Coord. failure	Goal of coordination	Form of coordination
Growth optimism	Make/assess forecasts	Low capacities Cacophony	Funding guarantees Sharing information (data, models, etc)	Centralized (Directive?) Vertical dialogue
Uncertain competence	Oversight/analysis Recommendations	Cacophony Different from Semester	Explain judgments. Converge (division of labor)	Vertical dialogue Vertical negotiation
Fiscal illusion	Sustainability analysis	Low capacities No engagement Cacophony	Funding guarantees Effective comply/explain; hearings Sharing information (data, models, etc)	Centralized (Directive?) Horizontal dialogue (peer pressure) Vertical dialogue
Impatience/electoral uncertainty	Oversight/analysis Recommendations	Cacophony Different from Semester	Explain judgment Converge (division of labor)	Vertical dialogue Vertical negotiation
Common-pool/budget Centralization	Oversight/analysis	Cacophony	Converge on fiscal space assessment.	Vertical dialogue

4.2. Status Quo and Way Forward

Some elements of the cooperative system envisaged above are already in place, at least in embryonic form. As regards horizontal coordination, the idea of creating a platform for regular exchange of views and forging common views on joint areas of concern has already materialized. In fact, two overlapping networks exist. The EU network of Independent Fiscal Institutions was created by a signed agreement in September 2015. It is voluntary, self-organized and open to all IFIs operating in the EU. The Network usefully pools analytical capacities from its members to produce short pieces that include (i) an analysis as to how IFIs perform some of their tasks (e.g. forecast endorsement), (ii) advice on further reforms of EU fiscal governance, and (iii) a position on the minimum standards IFIs should follow to be effective.

A separate network gathers the officially recognized independent bodies by virtue of EU law. It has been in place since 2013 and operates under the aegis of the European Commission, with

DG ECFIN acting "*as a kind of secretariat.*" (Jankovics and Sherwood, 2017). That second forum explicitly incorporates the vertical dimension of coordination as it provides a platform for IFIs and the Commission to engage on areas of common concern.

The third and last element of the still embryonic cooperative system is the EFB which is vaguely mandated to cooperate with national IFIs. The EFB annual report does good on that mandate by providing an informative review of how IFIs play (or do not play) their expected role in EU fiscal governance. The report also identifies areas of concern regarding the effectiveness of IFIs, such as discrepancies in information sets available to the Commission and the IFIs and the lack of vertical dialogue between IFIs and the Commission. Finally, the EFB's task to assess EC even-handedness in applying the EU framework could in principle discourage the Commission to pander to local politics ("because this is France"), thereby directly reducing the risk of cacophony.

While these initiatives clearly signal awareness of the need for a more cooperative approach to the work of IFIs, the lack of coherence shows the difficulty to bring together generally new and untested institutions bound to be touchy on their independence. Most IFIs are understandably still very much focused on affirming independence from any political body, be it a national government or the Commission itself. A distinct risk, however, is that whatever arrangement is in place today can take a life of its own and stay beyond its point of objective irrelevance. It thus seems important, if not urgent, to gather energies for the common good of building and maintaining strong IFIs that effectively support commitments to sound fiscal policies.

Economic analysis has not much to say on the details of the transition towards a coherent and effective cooperative system. We would nevertheless suggest the following steps to facilitate the emergence of such a system:

1. A genuine cooperative regime can only emerge and thrive if players are well identified and recognize each other as peers. Thus, an EU-wide agreement on what constitutes an independent fiscal institution is a must. Today, some of the officially recognized independent bodies are not proper IFIs; and some well-established IFIs are not associated with the formal network aimed at bringing them together.

2. A better alignment of the EFB on best-practice IFIs would greatly facilitate its role in fostering cooperation among IFIs and between them and the Commission. Independence cannot depend exclusively on the temporary appointment of highly talented management and staff, as these come and go. Expanded responsibilities coming along with a cooperative system would also call for reconsidering EFB limited resources, including staff size and permanent management appointments. Nesting the EFB in the Commission itself is also a clear departure from best practice. Ways to plug that gap include erecting the EFB is a stand-alone body or nesting it in a non- or less political institution.[45]

3. To the extent that issues 1 and 2 can be solved, the architecture of the final system should be straightforward. First, a network of national fiscal councils (with mandatory participation of all IFIs recognized as such) would organize horizontal cooperation. Operationally, the existing EU network of IFIs has already established a significant track record and work practice that could usefully be built upon. Second, the revamped EFB could be the neutral umpire of the system, teaming up with national IFIs in their bilateral dialogue with the Commission, and enabling productive interactions between the

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[45] Experience shows that the central bank or the audit court can be favorable habitats for IFIs.

network of national IFIs and the Commission. One could think of many ways the EFB could be integrated to the network, but this is beyond the scope of this paper.

Clearly, the sticking point remains the potential risk that any institutionalized network involved in structured interactions with EU political bodies could be perceived as a channel of influence of the supranational authority on national fiscal councils. Clearly, preserving IFIs' independence is instrumental to ultimately boost national ownership of fiscal policy rules. Therefore, coordination can be a win-win strategy if two main conditions are met. First, as described above, coordination itself must not be designed to tie the hands of national IFIs. Second, placing the EFB in a neutral umpire position requires aligning its architecture on best international practice.

Let us conclude by noting that the system sketched above is far more respectful of the subsidiarity principle than more ambitious proposals, such as the creation of an EU-wide fiscal council reporting directly to the European Parliament (Fatás and others, 2003). It is fully consistent with the goal of greater national ownership of fiscal rules, which is where the legitimacy of fiscal choices will ultimately sit for the foreseeable future.

5. Conclusion

We looked at the international coordination issues related to the operation of independent fiscal councils in the EU fiscal governance framework. IFIs play a central role in the reformed fiscal governance because they are expected to foster commitment to national fiscal rules designed to be consistent with the supranational standards of fiscal discipline.

Coordination issues arise because in a currency union, fiscal responsibility is a public good. Thus, IFIs should be effective everywhere, requiring harmonization in remits, tasks and capacities. Another important aspect relates to the nature of IFIs. These institutions influence policy outcomes mostly through their ability to better inform the public debate on fiscal policy. Hence, their activities overlap with regular surveillance conducted by the European Commission in the context of the European Semester and with the implementation of the Stability and Growth Pact.

We argued that without coordination among national fiscal councils and between them and the center, two risks threaten the effectiveness of EU fiscal framework. First, some IFIs might fail to strengthen government's commitments to national fiscal rules (and through them, EU standards of fiscal discipline). Second, the risk of cacophony would loom large in national public debates on the adequacy of fiscal policy, which IFIs should in principle avoid.

Explicit coordination could mitigate such risk. Both the nature of potential coordination failures and the need to preserve national ownership and IFI independence suggests that coordination should take the form of structured exchanges of information and discussions, ideally with the support of a reformed EFB. By contrast, we see no case for "hard," institutionalized coordination aimed at muting ex-ante any divergence of views, as it would fatally undermine independence and national ownership of fiscal councils.

References

Alesina, A. and G. Tabellini (1990), "A Positive Theory of Fiscal Deficits and Government Debt," *Review of Economic Studies* 57: 403-414.

Asatryan, Z., X. Debrun, F. Heinemann, M. Horvath, L. Ódor, and M. Yeter (2017), "Making the Most of the European Fiscal Board," ZEW Policy Brief No 3.

Barro, R. and D. Gordon (1983), "Rules, Discretion and Reputation in a Model of Monetary Policy," *Journal of Monetary Economics* 12: 101-121.

Beetsma, R., X. Debrun, X. Fang, Y. Kim, V. Lledo, S. Mbaye, and X. Zhang (2018), "Independent Fiscal Councils: Recent Trends and Performance," *European Journal of Political Economy* 57: 53-69.

Beetsma, R. X. Debrun, and R. Sloof (2017) "The Political Economy of Fiscal Transparency and Independent Fiscal Councils" IMF Working Paper, No 17/195, Washington, DC: International Monetary Fund.

Bénassy-Quéré, A., Brunnemeier, M., Enderlein, H., Farhi, E., Fratzscher, M., Fuest, C.,Gourinchas, P.O., Martin, P., Pisani-Ferry, J., Schnabel, I., Véron, N., Weder di Mauro, B., and J. Zettelmeyer (2018), Reconciling Risk Sharing with Market Discipline: A Constructive Approach to Euro Area Reform, CEPR Policy Insight 91,Center for Economic Policy Research.

Bergin, P. (2000), "Fiscal Solvency and Price Level Determination in a Monetary Union," *Journal of Monetary Economics* 45: 37-53.

Calmfors, L. and S. Wren-Lewis (2011), "What Should Fiscal Councils Do?" CESifo Working Papers No 3382.

Castellani, F. and X. Debrun (2005) "Designing Macroeconomic Frameworks: A Positive Analysis of Monetary and Fiscal Delegation," *International Finance* 8: 87-117.

Christofzik, D., L. Feld, W.Reuter, and M. Yeter (2018), "Uniting European Fiscal Rules," Working Paper No 04/2018, German Council of Economic Experts.

Combes, J-L, X. Debrun, A. Minea, and R. Tapsoba (2018), "Inflation Targeting, Fiscal Rules and the Policy Mix: Cross-effects and Interactions," *The Economic Journal* 128: pp. 2755-2784.

Curristine, T., J. Harris, and J. Seiwald (2013), "Case Studies of Fiscal Councils: Functions and Impact," IMF Policy Paper, July.

Darvas, Z. and A. Leandro (2015), "The Limitations of Policy Coordination in the Euro Area under the European Semester," Bruegel Policy Contribution No 2015/19, Brussels: Bruegel.

Debrun, X. (2000), "Fiscal Rules in a Monetary Union: A Short Run Analysis," *Open Economies Review* 11: 323-358.

Debrun, X. and L. Jonung (2019), "Under Threat: Rules-Based Fiscal Policy and How to Preserve It," *European Journal of Political Economy* 57: 142-157.

Debrun, X., M. Gérard and J. Harris (2017), "Fiscal Watchdogs and Sound Fiscal Policy: Is the Barking Loud Enough to Tame Politicians," chapter 16 in Gaspar, V., S. Gupta and C. Mulas-Granados (eds), *Fiscal Politics*, (Washington, DC: International Monetary Fund).

Debrun, X. and T. Kinda (2017), "Strengthening Post-Crisis Fiscal Credibility—Fiscal Councils on the Rise. A New Dataset," *Fiscal Studies* 38: 667-700.

Debrun X., T. Kinda, T. Curristine, L. Eyraud, J. Harris, and J. Seiwald (2013), "The Functions and Impact of Fiscal Councils," IMF Policy Paper, July.

Deroose, S., N. Carnot, L. Pench, and G. Mourre (2018), "EU Fiscal Rules: Root Causes of its Complexity," VoxEU Column: https://voxeu.org/article/eu-fiscal-rules-root-causes-its-complexity.

European Fiscal Board (2017), *Annual Report 2017,* Brussels: European Fiscal Board.

European Fiscal Board (2018), *Annual Report 2018*, Brussels: European Fiscal Board.

Fatás A., J. von Hagen, A. Hughes Hallett, R. Strauch, and A. Sibert (2003), "Stability and Growth in Europe: Towards a Better Pact," *Monitoring European Integration* No 13, CEPR, London.

Horvath, M. (2017), "European Fiscal Compact in Action: Can Independent Fiscal Institutions Deliver Effective Oversight?" CBR Discussion Paper No 1/2017, Bratislava: Council for Budget Responsibility.

Jankovics, L. and M. Sherwood (2017), "Independent Fiscal Institutions in the EU Member States: The Early Years," European Economy—Discussion Paper No 067, Brussels: European Commission.

Juncker, J-C, D. Tusk, J. Dijsenbloem, M. Draghi, and M. Schulz (2015), *Completing Europe's Economic and Monetary Union*, Brussels: European Commission.

Kydland, F.E. and E.C. Prescott (1977), "Rules rather than Discretion: the Inconsistency of Optimal Plans," *Journal of Political Economy* 85: 473-491.

Larch, M. and Braendle, T. (2018), "Independent Fiscal Councils: Neglected Siblings of Independent Central Banks? An EU Perspective," *Journal of Common Market Studies* 56: 267-283.

Organization for Economic Cooperation and Development (2014), *Recommendation of Council on Principles for Independent Fiscal Institutions*, Paris: OECD.

Sunshine, R. (2018), "Addressing the communications challenges facing an independent fiscal institution: A view from the Congressional Budget Office," chapter 14 in Beetsma, R. and X. Debrun (eds.), *Independent Fiscal Councils: Watchdogs or Lapdogs?*, CEPR, London.

Von Trapp, L. and S. Nicol (2018), *Designing Effective Independent Fiscal Institutions*, Paris: OECD.

3 Is the Expenditure Benchmark up to Standard? Procyclicality in the Measurement of Potential Output and the Future of the EU Fiscal Framework

Sebastian Barnes[46] and Eddie Casey[47]

1. Introduction

It is widely accepted that fiscal rules can contribute to sound economic management and to the fiscal sustainability of euro area countries. However, despite three generations of the Stability and Growth Pact (SGP) rules, the rules have failed to fully meet their objectives and criticism of the design, effectiveness and complexity of the rules remains widespread. Recent debate has focussed on the use of expenditure rules, modelled around the existing Expenditure Benchmark and combined with some form of debt target, as a promising approach to reforming the SGP. This paper examines whether the Expenditure Benchmark (EB) could play a useful role in a future EU fiscal framework, focussing in particular on the measurement of potential output and the procyclicality of the estimates underpin the EB, as well as a number of other features of the EB. Any change to the EU fiscal framework should be based on a data-driven assessment of how the rules are likely to play out in practice. The analysis in this paper is based on the past performance of published estimates of potential output in real time. This sheds light on how the EB could be expected to perform. It suggests that potential output—as estimated—is procyclical: it tends to follow the cycle and is subject to significant revisions in the same direction as actual growth.

The paper concludes that the procyclicality of the estimates of potential output underlying the Expenditure Benchmark raises serious questions about its suitability to ensure effective economic stabilisation. These effects are shown to have a potentially meaningful policy impact and are likely to be reinforced by procyclical forecasts for actual output. There is an inherent difficulty in estimating potential output due to its non-observability, unknown structural breaks, and the non-computability of such a complex variable. There is a potentially important trade-off between putting too much weight on recent developments, possibly following the cycle, and too little weight on them, risking missing shifts in the economy. Put differently, the identification of permanent versus temporary shocks is critical, but difficult and the their relative importance is likely to vary.

Solutions for policy could include revising the EU Commonly Agreed Methodology (CAM) that is used for estimating potential output or, more plausibly, switching to alternative methods that better capture the distinct but related questions of the cyclical position and medium-term prospects for the economy. Some methods are better designed to identify shifts in potential output than the CAM and can be better adapted to country circumstances. These alternatives could be based on domestic methods and a suite of models together with judgement endorsed by national independent fiscal institutions (IFIs). Research in this respect has recently been undertaken by the Network of EU IFIs (EU IFIs, 2018), as well as by individual IFIs (Cuerpo, Cuevas, and Quilis, 2018; Casey, 2018). To help improve estimation of potential output, forecasters should publish five-year-ahead forecasts to help advance our understanding of real-time estimation performance.

An alternative approach is to make institutional changes to allow Rainy-Day Funds (RDFs) to operate within the SGP framework (Casey et al., 2018) and to use alternative, less procyclical, and more reliable methods to guide policy. Such an approach could afford policy a more agnostic role in terms of the precision with which it sets "sustainable" growth rates of spending. A key advantage of the RDF proposal is that sustainable growth rates can be based on a blend of (1) informed judgment and (2) a mechanical application of the EB.

The implementation of the Expenditure Benchmark reveals a number of other issues with its design that can provide misleading guidance, including the treatment of investment and unemployment-related spending. In addition, the implementation of the 10-year averaging rule and a "ratchet effect", which comes from taking spending the previous year as a starting point for spending in any given year and can have a destabilising effect on the path of spending. These issues could be addressed through changes to the design of the Expenditure Benchmark, although they do involve some trade-offs.

Section 2 sets out the background of the EU fiscal rules and discusses desirable design features, as well as issues with its current design. Sections 3 and 4 look at revisions to potential output estimates and the impact that these have on the Expenditure Benchmark.

2. Design of EU Fiscal Rules and the Expenditure Benchmark

Fiscal rules are widely advocated as a best practice to support sound economic management through a counter-cyclical fiscal policy and to ensure medium- and long-term fiscal sustainability. Rules are a possible solution to the well-known "deficit bias" in the public finances, whereby short-termist political pressures lead to larger government deficits than is optimal, particularly through the failure to save enough in good times. Rules provide a commitment device and can help to increase fiscal credibility. The argument for fiscal rules is stronger in a monetary union, given (1) that monetary policy may not play a stabilising role at national level and (2) the potential for negative spillovers through macroeconomic policies and deterioration in fiscal sustainability in the context of a shared currency.

This has long been recognised for the European Monetary Union (EMU) and there have now been three generations of the Stability and Growth Pact (SGP) and related instruments. The first generation, building on the Maastricht Convergence Criteria, focussed mostly on the 3% of GDP ceiling for the *general government deficit*. The second generation of the SGP came into force in 2005 and brought a number of changes, mostly importantly a renewed emphasis on the Medium-Term Objective (MTO) for the *structural budget balance* and a set of related requirements and procedures. The third generation of the SGP was implemented from 2011 in the so-called "Two

Pack", "Six Pack" and Fiscal Compact. This was designed to reinforce the rules around the structural budget balance, the Expenditure Benchmark and the debt-to-GDP ratio. EU Member States typically now operate fiscal frameworks that comprise European fiscal rules as well as domestic fiscal rules that to varying extents complement or mirror the European rules.

Figure 1. Overview of Fiscal Rules in EU Member States
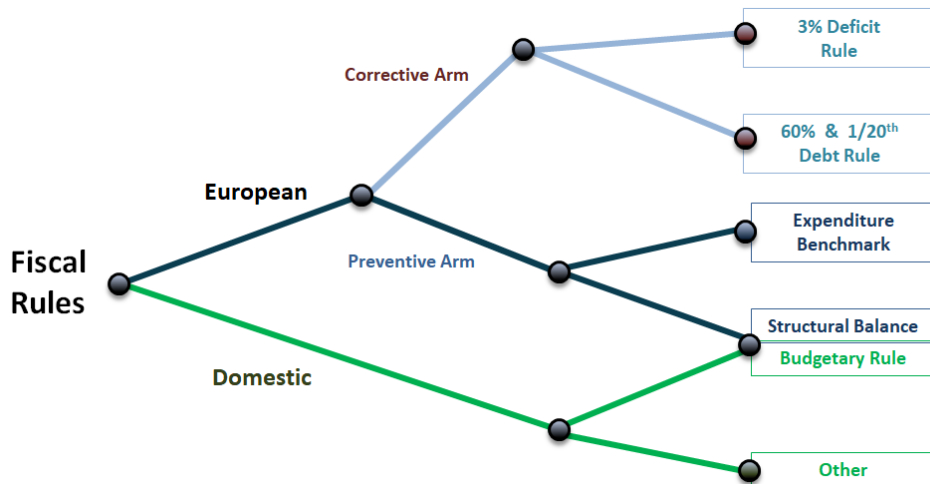
Within the so-called "Preventive Arm" of the SGP, there are currently two pillars:

- The structural budget balance and the requirement to achieve a Medium-Term Objective, which can be no worse than a structural deficit of 0.5% of GDP, or to make sufficient progress towards it.[48]

- The Expenditure Benchmark is intended to support achievement of the MTO by requiring that a measure of spending grows in line with potential GDP plus inflation (Box A).

Despite the recent reforms, the fiscal objectives of the SGP are not fully achieved and there remains widespread criticism of their design, effectiveness and complexity. For example, Beetsma et al. (2018) identify a number of issues: conflicting signals arising from overlapping rules; the large range of indicators used requiring judgment on which to apply; a complicated system of flexibility arrangements; and an escalating system of warnings and sanctions for non-compliance, where the latter have never been used (European Commission 2018b). The effectiveness of the rules depends in part on countries' commitment to meeting them and enforcement of the rules. However, the ability to enforce the rules depends in part on their design and whether countries can be credibly made to comply. Rules that do not have public support and/or have unclear or even perverse economic implications are likely to be hard to enforce. The requirements for the structural balance have been criticised on the basis that balances estimated under the EU Commonly Agreed Methodology (CAM) often do not incorporate plausible estimates of the cyclical position of the economy and are subject to many

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[48] Note that this 0.5% deficit limit is relevant for signatories to the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG) which covers all euro area Member States. The Regulation itself (EC) 1466/97 specifies that euro area and ERM2 Member States must have an MTO that corresponds to at least -1% of GDP.

revisions in real-time. In particular, the estimates have been criticised for being pro-cyclical and for being revised in a pro-cyclical manner.

2.1. Procyclicality in the Fiscal Rules

Procyclicality is the tendency for something to move in the same direction as the economic cycle. Economic policy should be countercyclical, dampening demand when the economy is overheating and supporting demand during slowdowns. The focus on the structural balance in the SGP is intended to make fiscal policy countercyclical with the structural position following a fixed path and the automatic stabilisers working fully to modulate demand, allowing the deficit to widen in downturns and narrowing it in good times.

Standard ways to model potential output assume that potential output is a distinct and separate process to the cycle. The traditional assumption is that potential output is orthogonal to cyclical developments, that one can separately and cleanly identify one process from the other. As we will show, there is evidence that the potential output estimates produced under the EU Commonly Agreed Methodology: (1) do follow the cycle, (2) are prone to large revisions, (3) tend to be revised in the same direction as growth, implying procylicality of these estimates, and (4) have revisions that—due to being serially correlated—therefore tend to build up over the cycle. This has contributed to dissatisfaction with the use of the structural balance in the EU fiscal rules with the rules failing, for example, to signal overheating and imbalances in several euro area countries prior to the euro area crisis.

Box A. The Expenditure Benchmark

The Expenditure Benchmark is designed to complement the structural balance in the SGP by setting a limit for government spending growth net of discretionary revenue measures. A maximum allowable real net expenditure growth rate for the following year is set annually. It is based on a ten-year average of the economy's estimated potential growth rate ("reference rate") estimated using the Commonly Agreed Methodology (CAM). The Expenditure Benchmark (EB) limit is obtained as follows:

$$EB = RR - C$$

where RR, the Reference Rate, is the average over a 10-year period of potential output growth estimates $\hat{y}$ (the average is for the years t-5 to t+4). In cases where a country is not at its MTO, an additional requirement ensures that the allowable growth rate is consistent with structural balance adjustment requirements (the "convergence margin" C). The convergence margin is set so as to ensure the appropriate adjustment towards the MTO and it given by:

$$C_{t+1} = \left(\frac{Adj_{t+1}}{PE_t}\right) * 100$$

where Adj is the required adjustment for the structural balance expressed in percentage points of GDP to return it to towards its MTO, and PE is the Primary Expenditure-to-GDP ratio.[49] For Member States at their MTO, the convergence margin is by construction set to zero. For

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[49] The latter is taken from the same Commission forecast vintage on which the medium-term rate (ten-year average) of potential GDP growth is centred. For example, the 2015 share of government primary expenditure in GDP (as per the spring forecast 2015) is used to calculate the convergence margin for 2016.

Member States that are above their MTO (i.e., that are over-compliant), can have negative convergence margins.[50] Importantly, this means that the expenditure rule is anchored by the estimates of the structural balance position.

To obtain a nominal allowable spending figure, a GDP deflator forecast (taken from the spring forecast by the European Commission) is added to the volume growth rate permitted under the rule. Relevant estimates of the GDP deflator, the output gap and potential output growth are set and fixed or "frozen" in spring of the previous year and apply to all subsequent assessments.[51]

The expenditure aggregate assessed for compliance with the Expenditure Benchmark limit is a corrected expenditure aggregate that is net of any discretionary measures. The corrected expenditure aggregate assessed is obtained as follows:

General Government Expenditure
-         Interest expenditure
-         Expenditure on EU programmes which is fully matched by EU funds revenue
+   Gross fixed capital formation averaged over year t-3 to year t
-         Gross fixed capital formation (for year t)
-         Cyclical unemployment benefit expenditure[52]
-         Expenditure one-offs
=   Corrected Expenditure Aggregate (E_t)
-         Incremental year t impact of discretionary revenue measures (DR_t)[53]
=   Corrected Expenditure Aggregate Less DR_t
%   Net expenditure growth rate for year t: $g_t = (E_t - DR_t - E_{t-1})/E_{t-1}$
                   Deflated with GDP deflator to obtain net expenditure growth in real terms.[54]

In terms of the compliance assessment, the actual net expenditure growth rates over are compared with the Expenditure Benchmark limit. If the deviation exceeds 0.5% of GDP, it is judged to be significant. The significance of a deviation is judged both in each year and over two years. In the case of two-year assessments, if the deviation is over 0.25% of GDP, it is judged to be significant.

Recent debate has focussed instead on the use of expenditure rules, modelled around the existing Expenditure Benchmark and combined with some form of debt target, as a promising approach to reforming the SGP (Beetsma et al., 2018; Feld et al., 2018; Darvas, Martin and Ragot, 2018; Bénassy-Quéré, et al., 2018; and OECD, 2018).

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[50] The regulations do not envisage any specific negative convergence margin to bring a Member State back to its MTO. However, the European Commission does calculate and provide in its guidance the net spending growth rate limit that would be compatible with the Member State returning to its MTO, on the basis of the initial distance from the MTO.

[51] Two exceptions to this freezing of requirements apply: first, when economic conditions worsen between the spring and autumn EC assessments such that the revised output gap falls below -3 per cent (i.e., if a Member State falls into 'very' or 'exceptionally bad' times). In such cases, the required adjustment is updated. Furthermore, where data has been revised so that subsequent assessments indicate the MTO has been met, this assessment will prevail over the frozen requirements.

[52] Cyclical unemployment benefit expenditure is assessed with reference to a comparison of actual unemployment rates against the estimated Non-Accelerating Wage Rate of Unemployment (NAWRU) or the "natural rate of unemployment" as determined by the Commonly Agreed Methodology. As the NAWRU is often understood to be a key ingredient of the CAM that is especially prone to procyclicality, this adjustment is one that can aggravate problems with the assessment.

[53] Including revenue measures that are mandated by law.

[54] The deflator that applies is the EC Spring GDP deflator forecast made in year t for year t+1.

The reforms considered typically entail some kind of single spending rule with a debt correction term (a so-called "debt brake") along the lines of the Darvas, Martin and Ragot (2018) proposal:

$$\hat{g}_{i,t} = \hat{y}_{i,t} + E_{t-1}\pi_{i,t} - \gamma_{i,t}(d_{i,t} - d^*)$$

where $\hat{g}_{i,t}$ is the growth rate limit for nominal public spending for country i at time t (net of various corrections such as interest costs, unemployment spending and public investment). The limit for $\hat{g}_{i,t}$ is primarily set according to potential output growth $\hat{y}_{i,t}$ and expected inflation $E_{t-1}\pi_{i,t}$. The growth rate limit is reduced by a debt correction term $\gamma_{i,t}(d_{i,t} - d^*)$. This term accounts for the difference between the observed debt-to-GDP ratio $d_{i,t}$ and the long-term target ratio d^*. The parameter $\gamma_{i,t}$ determines the speed at which the correction is made in a given year to bring a country back towards its targeted debt ratio.

The focus on expenditure rules is potentially attractive. First, while a number of fiscal variables can be used as targets for policy, spending has the advantage of being directly observable, unlike the structural balance (Bénassy-Quéré, et al., 2018). Second, it is easier for the government to control than revenues as a large share of spending depends directly on its own decisions, compared with taxation which depends strongly on the level of taxable activity. Third, while tax revenues tend to increase over time as the economy grows, improving the fiscal position, the costs of providing government services also tends to increase over time, including due to lower productivity growth in the public sector and demographic pressures, and this tends to worsen the budgetary position. Focussing on spending can therefore help to focus directly on the factors that tend to reduce the fiscal balance. Fourth, the structural budget balance is derived by subtracting the estimated cyclical component from the observed balance. This implies that any error in the measurement of the cyclical or the relationship between the cyclical and revenues (so-called "revenue buoyancy") is attributed to the structural balance. This does not enter in consideration of the expenditure rule. Fifth, spending rules are closely related to multiannual expenditure ceilings, a set of maximum limits on aggregate and/or departmental spending set out for several years ahead, which are widely advocated as a useful tool for sound budgetary management.

However, many of the papers advocating the Expenditure Benchmark do not focus primarily on the critical role of the measurement of potential output growth and procyclicality for such rules. Indeed, even the European Commission (2017) proposal to strengthen fiscal responsibility, only refers to the "underlying government expenditure path" without specifying how this should be determined.

There are some plausible reasons to think that potential output growth rate revisions/procyclicality may be less of an issue than for the output gap, even though both are based on exactly the same estimates of potential output. First, a revision to potential output in a given year will likely be numerically smaller than the revision to the output gap, which will reflect revisions to the whole path of potential output which will tend to be positively correlated. For example, Claeys et al. (2016) note that: "The revisions of the real-time estimates of the medium-term average potential growth rate (which is used for the expenditure rule) were smaller than the revisions of the change in the structural balance estimates". Second, the implied change in policy is likely to be small, leading to some change in the required growth rate for the coming year rather than a significant swing in the budget balance to meet the new requirement. Third, the Expenditure Benchmark uses a ten-year averaging of potential growth rates rather than a point estimate for the output gap under the MTO, which will tend to dampen the effect of changes in any given year.

Empirical evidence in Section 4 shows that procyclicality is a significant feature in the potential output estimates used to underpin the Expenditure Benchmark. This is mitigated by the use of ten-year averaging, but it is not alleviated fully and, over time, it can compound to have larger adverse effects. By way of illustration, it is useful to look at the real expenditure growth rate limits that would apply for a selection of Member States. Casey et al. (2018) shows that the limits for real spending growth rates that would have applied historically under the fiscal rules vary substantially with the cycle.[55] Figure 2 shows the implied allowed growth rates for a selection of small open economies in the EU: Ireland, Luxembourg, Portugal and the Netherlands based on current estimates of potential output.[56] What is apparent in each case is that the allowed growth rates fail to smooth through cyclical developments. Instead, they closely follow the ten-year average for actual real GDP growth rates rather than getting at a more meaningful approximation of "sustainable" growth rates.

Figure 2. Procyclicality of Allowed Growth Rates under the Fiscal Rules (current estimate)
% change year-on-year
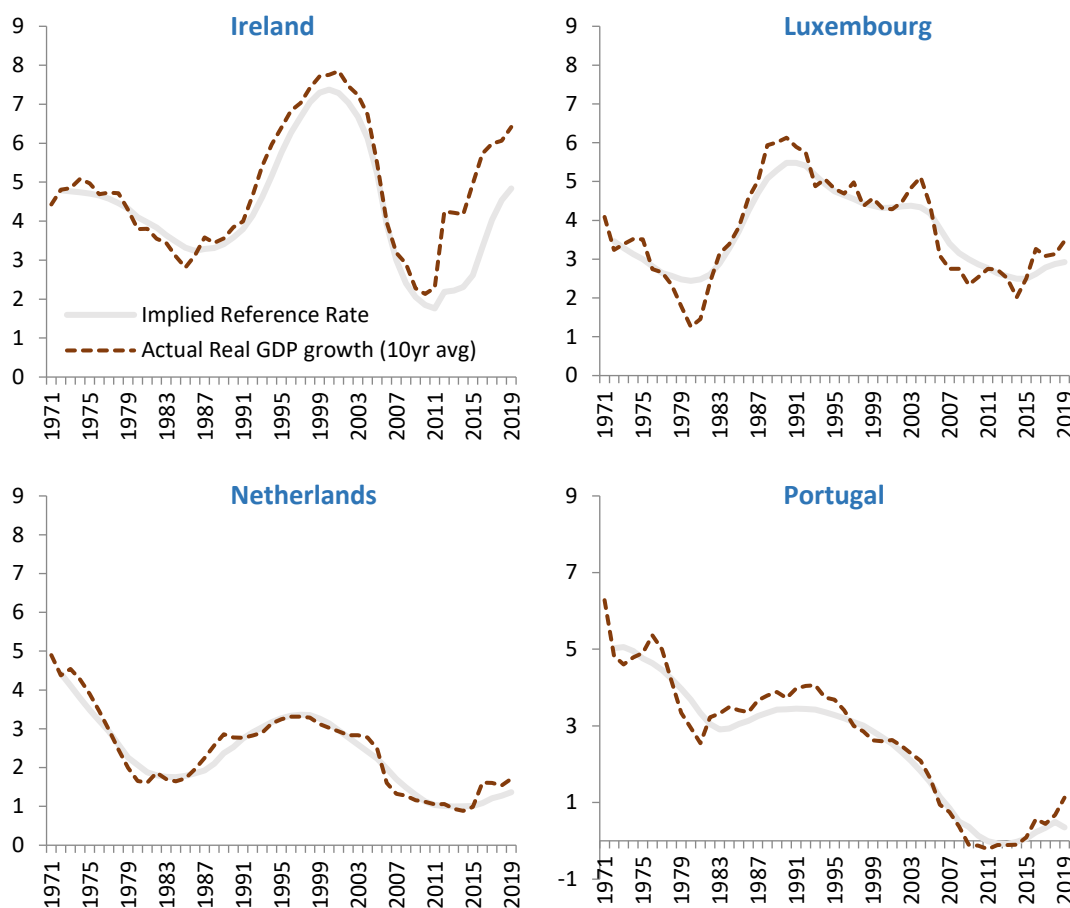
Sources: European Commission (Autumn 2017 estimates); authors' workings.
Note: Data show the implied Reference Rates based on ten-year averages of the estimated potential output growth rates, which are derived using the commonly agreed methodology.

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[55] The implied allowed real growth rate here refers to the Reference Rate or ten-year average of potential output growth rates as applied under the Expenditure Benchmark.

[56] Technically, there were no Reference Rates (i.e., allowed growth rates for real expenditure growth under the Expenditure Benchmark) applicable for earlier periods prior to the introduction of the Expenditure Benchmark. It is also worth noting that these estimates are on an *ex-post* basis and so incorporate actual outturns as opposed to forecasts as well as revisions to the historical data. The end-point bias problem common to statistical filters would typically mean that procyclical bias would be a more pronounced problem in real-time than is shown here.

Taking Ireland as an example, we can see the procyclical pattern is especially pronounced. The allowed growth rates climb from a low of close to 3 per cent prior to the 1990s to more than double that (7.3 per cent) by 1999, before descending again to rates closer to 2 per cent. More recently, these appear to be rising again, with rates closer to 5 per cent visible for the latest period. This path for "sustainable" growth rates allowed under the fiscal rules traces the path of the 10-year average for actual real GDP growth very closely. In cases where cyclical variation is more volatile and/or unduly influenced by factors outside of the scope of potential output measurement (e.g., financial cycles, absorption cycles), this feature can be more pronounced.

Another way to examine procyclicality of potential output estimates is to compare their typical growth rates as measured at the peak of a cycle, when compared to their trough in a downturn. Figure 3 shows that, aside from Germany, all of the EU-15 Member States had material changes in their "sustainable" growth rates for spending here measured by applying the ten-year averaging of potential output growth rates used for the Expenditure Benchmark to real-time vintages. In many cases, such as in Spain, Portugal, Finland, Greece, Luxembourg, and Ireland, the procyclical revisions are substantial (ranging from 2.8 percentage points to almost 7 percentage points).

Figure 3. Peak-to-Trough Potential Output Growth Rates
% growth rates for ten-year averages of real-time potential output estimates
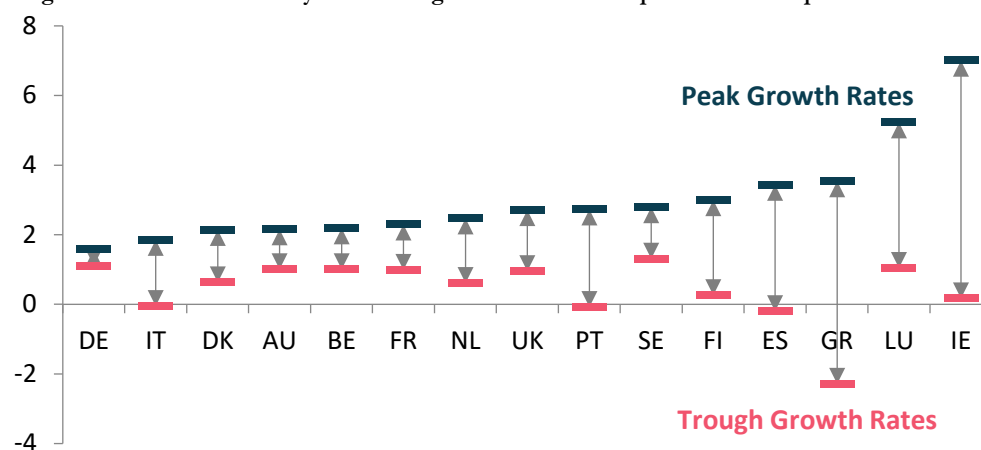
Sources: AMECO; authors' own calculations.
Notes: The figure draws on data for potential output growth rates averaged over ten-years (t-5 to t+4) so as to be consistent with the growth rates that are used in the Expenditure Benchmark. The growth rate averages are centred on the years 2004–2018 and are taken from the one-year-ahead forecasts from European Commission forecast vintages Spring 2003–Spring 2018. Shown in the figure are the respective peak growth rates for vintages Spring 2003–Spring 2007 and the respective trough growth rates for vintages Spring 2008–Spring 2018 for each country.

2.2 Why Does Procyclicality Arise?

Estimating and assessing potential output and the medium-term growth trajectory are inherently difficult tasks. The use of the EU Commonly Agreed Methodology illustrates a number of pitfalls. At the heart of the CAM are a number of limitations, which may give rise to procyclical estimates of potential output:

- **Phillips Curve**: the CAM obtains the implied trend unemployment rate based on a version of an accelerationist Phillips curve. Combining this with trend labour force levels gives trend employment levels, which, together with trend average hours worked, gives the total potential level of factor inputs from the labour side (i.e., trend total hours worked).

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The estimation of the NAWRU has been a focal point for recent criticism of the production function approach employed under the CAM (e.g., Fiormanti, 2016; Darvas and Simon, 2015).[57] However, without observing the actual rate of unemployment that would be consistent with constant inflation, it is difficult to dispute the validity of NAWRU estimates.

More concerning is the extent to which NAWRU estimates tend to track actual unemployment for some economies. Rather than identifying a persistent trend unemployment rate, the NAWRU can often more closely approximate the actual unemployment rate.[58]

Predictions under the Phillips curve may also be less relevant, given the experience of recent decades, especially in the currency union. Inflation in some Member States has proven less sensitive to unemployment changes. This is partly due to inflation expectations becoming better anchored. The presence of credible inflation-targeting central banks is an often cited reason for this anchoring. Such developments would argue for approaches like that of Rusticelli et al. (2015) that try to incorporate some anchoring of inflation expectations around the central bank's inflation objective (provided that the data are consistent with this). Another aspect is that the channels through which economies adjust may have changed in a shared currency and monetary union. In the case of Spain and Ireland, for example, falling unemployment rates and booming economies coincided more with widening current account deficits and rising net inward migration flows rather than through price adjustments (Cuerpo, Cuevas, and Quilis, 2018).

- **Net migration:** when net migration flows are positive and inward, these can boost labour inputs and hence potential output estimates in the production function approach. Such flows can also dampen the traditional Phillips curve relationship between output (or unemployment) and inflation. This dampening effect arises due to the additional labour supply prompted by migration, which can serve to limit the expected inflationary pressures that might arise when unemployment is low. In smaller economies—like Ireland—it can play a proportionally greater role, as migration flows can make up a relatively large share of the total labour force. In turn, this can add to difficulties in discerning a stable level of unemployment at which inflation does not change (the NAWRU) and, hence, in distinguishing between cyclical and trend developments.

- **Use of actual capital stock levels:** The CAM uses the level of actual net capital stock to determine the capital contribution to potential output. However, identifying sustainable levels of output linked to capital is complicated. First, there are significant issues involved in measuring the capital stock accurately (OECD, 2001), with major challenges posed by the openness of capital (Fratzscher and Bussiere, 2004; Obstfeld, 1985). Second, unsustainable developments, such as asset price bubbles in the housing

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[57] As Casey (2018) notes, taking Spring 2017 forecasts produced by the European Commission, Spain's NAWRU was forecast to be 16.6 per cent for 2018, with actual unemployment at 15.9 per cent. For Ireland, the NAWRU estimate for 2016 was 8.3 per cent, while actual unemployment was 7.9 per cent. These estimates suggest that excess employment was evident, or, as Darvas (2013) note, that almost all of those unemployed are regarded as useless from the perspective of the production potential of the economy. The plausibility of these results is questionable in the absence of clear wage pressures.

[58] For example, Casey (2018) notes that 87 per cent of the observations for Ireland since 1980 fell between +/- 2 percentage points of the actual rate. This tendency occurs whenever actual unemployment experiences sharp swings, even in the absence of developments that might explain rapid shifts in structural unemployment.

sector, can also distort capital contributions to potential output. For example, investments into housing may boost capital levels, thus inflating potential output as measured. However, the actual effects on an economy's potential might best be considered unsustainable over the long term.

- **Reliance on filtering:** an argument in favour of the production function approach underpinning the CAM is that it avoids the atheoretical shortcomings of other commonly used filtering approaches and their propensity to end-point bias.[59] However, the application of the CAM still involves heavy usage of statistical filtering *within* the model (e.g., for the identification of trend labour inputs such as hours and participation rates, and for trend total factor productivity). To the extent that this makes up estimates used in the CAM, the drawbacks associated with filtering approaches in terms of procyclicality may not be fully removed.

A less widely appreciated issue is that CAM estimates of potential output on projections of actual output and extension methods. Variables that enter the production function either directly or through filtering/equations are forecast or projected over the forecast horizon. The CAM uses a range of methods to extend forecast variables further ahead (i.e., beyond the short-run demand side projections, which are typically for just two years ahead). This is a part-solution to the end-point bias problem. However, the forecast errors may be procyclical and the extension methods are typically quite crude. Several are variants of a random-walk such that recent levels of a given variable will drive the extended outturns for that same variable, implying a procyclical pattern.[60] This approach leads to predictable revisions to estimated potential output and procyclicality.

Any approach to estimating potential is likely to face difficulties given that it is unobservable and therefore difficult to evaluate. Indeed, potential output depends on so many other factors that, in effect, it may be non-computable. The economy is complex, the relationship between the cycle and cyclical indicators such as inflation are changeable and difficult to discern, and there are inevitable data limitations. It is also possible that we still need to refine our definitions of the cycle and our tools for estimating it. A particular difficultly is that unknown structural breaks make it hard to model potential output, especially in real time. There is a potentially important trade-off between putting too much weight on local developments, potentially following the cycle, and too little weight on these, risking missing shifts in the economy. This question can be viewed as the problem of identifying temporary versus permanent shocks (Sargent, 1987). As documented for the United States in Coibion *et al.* (2017), there is a tendency among many estimates of potential output to function more like a weighted average of past output than a way of distinguishing between temporary and permanent shocks and potential output estimates adjust in a similar way to both types of shock.

From this perspective, estimating potential output can be seen as an adaptive learning or filtering process in a world characterised by structural change. How much weight to place on recent or local observations is likely to depend on circumstances, suggesting a role both for a suite of models approach and judgement. For this reason, it is helpful to publish regular five-year ahead projections so that performance can be evaluated and forecasts and methods adapted.

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[59] The so-called "end-point problem" can – with some filters – result in estimates that are highly biased at the ends of the sample. This occurs in a fashion that is typically procyclical (i.e., the smoothed series tends to be close to the observed data at the beginning and end of the estimation sample).

[60] The CAM, for example, extends forward participation rates using an AR(1) to AR(3) model for most Member States, and average hours worked using an AR(1) model for nine Member States.

Despite these challenges, some methods appear less procyclical than the CAM, though differences in performance are visible across economies so that a one-size-fits-all approach may not exist. Promising approaches include those based on different filters and using a wider set of models or variables, including financial variables and the current account (see, for example, Casey, 2018; and Darvas and Simon, 2015). As argued by Coibion *et al.* (2017), the Blanchard-Quah method may help to identify temporary and permanent shocks (Blanchard and Quah, 1989).

It is important to recognise that the questions of the cyclical position and medium-term prospects for the economy are related, but distinct. Using information on capacity utilisation or the current account may be helpful to identifying whether output is close to potential at the current time. However, they may be less informative about the future path of potential output. The assessment of the current output gap is a useful input into judging the medium-term path of the economy, but it is unlikely to be sufficient and many different outcomes for potential output over a 5-year horizon are likely to be consistent with similar assessments of the current output gap. For a fiscal rule that focusses on the estimate of potential output growth for the present period, this may not be a large problem, although it may provide a signal about what level of spending is sustainable. However, for an approach to controlling spending using a more medium-term focussed rule (which may reduce drift through the cycle), this issue may be more pressing. These considerations argue for giving a role for structural models of the medium term in estimating potential output paths for spending rules.

2.3 How Procylicality can be Problematic

Augmenting the cycle

The principal concern with procyclicality for any future design of the fiscal rules, including spending rules, is that it will give a poor steer for fiscal policy based on such estimates. If potential output estimates are procyclical, then these will get pulled in the direction that the cycle is moving in too easily. This will mean that, by extension, government spending limits tied to potential output will get pulled in the same direction. In good times, spending limits will loosen inappropriately, and in bad times, they will tighten inappropriately. While most solutions propose using potential output growth rates as an anchor for net expenditure growth, these could obviously prove to be a weak anchor.

There are two other factors to consider: "hysteresis", the idea that inappropriately tight fiscal policy can have permanent or, self-defeating effects; and business cycle asymmetry. Recent literature has pointed to fiscal output multipliers being larger in recessions (Blanchard and Leigh, 2013; Auerbach and Gorodnichenko, 2012; Batini, Callegari, and Melina, 2012; Woodford, 2011) and in the presence of hysteresis (Engler and Tervala, 2018). Any fiscal framework that promotes loose fiscal policy in good times, and tight fiscal policy in bad times will limit the role for countercyclical fiscal policy in this context. These aspects call for a deeper understanding of the limitations of potential output as it is commonly estimated.

Procyclicality is clearly a concern for the design of any future fiscal rules, but in the presence of hysteresis and asymmetry, problems can be aggravated.

Hysteresis

Procyclicality leads to an additional concern in terms of how we measure potential output in the presence of hysteresis (i.e., permanent losses of years of growth).[61] Hysteresis blurs our concept of how potential output and the cycle are separate constructs. There are good reasons to suspect that losses in output, which might be deemed as cyclical or temporary could in fact have more lasting impacts. This could arise where investment inputs or labour inputs to potential fall in downturns with these falls then persisting. Investment spending may be scaled back disproportionately in a downturn, for example, or workers may become discouraged and not re-enter the labour force.

The danger with procyclical assessments of potential output is that these may lead to poorly stated fiscal policy advice, which could become self-defeating. For example, fiscal consolidations (periods of net government spending cuts/tax increases intended to improve the overall budgetary position) might be pursued when not required. This could happen when the underlying budgetary position has not really deteriorated but mismeasurement leads us to conclude that it has. Falling demand, consequent on the consolidation, may then translate into inappropriately weaker assessments of potential, which in turn necessitates even tighter fiscal policy in a negative feedback loop (Fatás, 2018).

Business cycle asymmetry

A further reason why procyclicality can be problematic is that it can play out in different ways during booms and busts. Booms typically last longer than recessions. In the presence of procyclicality, this asymmetry could have damaging effects. It can mean that procyclicality will tend to lead to unsustainably large increases in expenditure that are protracted over a relatively long period, on average, followed by a need for sharply lower spending growth in a more condensed period of time.

Artis et al. (1997) finds that for G7 and European countries over the period 1961–1993, recession durations typically range from approximately 1–2 years, whereas the duration of expansions is, on average, about 4–5 years. Artis et al. (2004) finds similar durations for recessions (1–3 years) for European countries over 1970–1996. The CEPR (2017) Euro Area Business Cycle Dating Committee dates recessions in Euro Area countries that have lasted for, on average, 1½ years, whereas expansions have lasted for just under 8 years, on average, over the period 1970–2013.

2.4   Design Issues Beyond Procyclicality

In addition to its reliance on the CAM, there are a number of specific issues with the design of the Expenditure Benchmark that make it less than optimal from a policy perspective. Some relate to issues that any expenditure-rule based system would need to address and could give rise to trade-offs between simplicity/complexity and optimality.

First, allowable spending in a given year depends on actual spending in the previous year. This creates a "ratchet effect", whereby a higher level of spending one year raises the level of allowable spending in the following year in a situation where the expenditure rule is binding but the MTO-based rules are not (for example, due to revenue buoyancy flattering the structural

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[61] The term hysteresis was first used to describe the persistent European unemployment during the 1970s (Blanchard and Summers, 1986). However, Fatás (2018) argues that the notion of cyclical shocks leaving permanent effects is a much broader concept. When growth is endogenous and key drivers such as investment and R&D are possibly affected by cyclical conditions, then hysteresis fits in a variety of macroeconomic models (Stadler, 1990).

balance).[62] The ratchet can mean that revisions in potential output that lead to higher spending then get locked in. It also means that any overrun relative to the rules is locked into the level of future spending. Conversely, lower spending than allowed one year reduces the level in all future years. It also reduces incentives to run prudent policies, particularly as higher saving in the near term cannot be clawed back through higher spending in the future.

This issue could be resolved by setting the requirements of the expenditure rule over a fixed multi-year period with actual spending allowed to deviate at any given point in time from the "rule path" but expected to meet it on average over time. However, this comes with some possible trade-offs, notably locking in an estimate of potential output growth and the path of sustainable spending made at one point in time for multiple years. It could be more difficult to enforce if rule compliance is effectively assessed over long periods, raising the risk that large deviations occur in the near term and that the requirements then become unenforceable further ahead. This could be addressed through some type of adjustment account that would seek gradually to correct errors in the setting of policy (Darvas et al., 2018; Feld et al., 2018). The Rainy Day Fund proposal outlined in Casey et al. (2018) also provides a means of adjustment: one which explicitly recognises that procyclical errors on potential output estimates may emerge over the course of the cycle. This adjustment puts developing the best available (but imperfect) estimates of potential output projections at the centre of fiscal policy, as is done for monetary policy, with the design of the fiscal rules a second-order issue.

Second, the Expenditure Benchmark makes a number of corrections, exclusions and adjustments to focus on a spending measure that is more directly under the government's control and isolate the trend from one-off items. This includes the treatment of interest payments, investment spending and cyclical unemployment-related spending and co-financing of EU programmes. However, this can cause difficulties in some cases. For example, investment enters the benchmark as an average over 4 years. While this can be helpful to smooth through big one-off capital projects, it can exclude a key driver of spending during periods where the steady-state public investment level is adjusting. If public investment is procyclical, this will tend to understate the true increase in spending during good times and require greater tightening in bad times.

3. Methodology and Data

To assess the procyclicality of potential output estimates in EU Member States, we investigate whether revisions to potential output growth rates positively respond to revisions to actual growth rates.

This approach focusses on one aspect of real-time procyclicality, namely how estimates of potential get revised up over the cycle. However, procyclicality can also arise for a given set of data depending on how far the approach tends to follow the actual data. These two forms of cyclicality are likely connected in the sense that approaches that put more weight on local conditions will both follow the cycle more closely and respond more to data revisions. A further driver of procyclicality, also not considered explicitly in this exercise, may be due to procyclicality in macroeconomic forecasts from which projections of potential are derived.

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[62] Where the MTO is also binding, deviations from the MTO will translate through the convergence margin into adjustments in requirements under the Expenditure Benchmark.

We take data from the European Commission's CIRCA website on its past forecasts of both potential growth rates and actual output growth rates. We compile revisions data for 15 Member States for 15 years (2004–2018) using the Spring forecast vintages released by the European Commission. We take the forecasts for year t+1 and compute their subsequent revision as inferred from the forecast for the same target year in year t:

$$Rev_t = Forecast_t - Forecast_{t+1}$$

where Rev_t is the forecast revision and $Forecast_t$ is the updated forecast vintage for the same target year as the original one-year-ahead forecast for $Forecast_{t+1}$.

An important limitation of these data are that the European Commission only publishes 1-year ahead forecasts for potential. This makes it impossible to assess right across the cycle the performance of an approach targeting medium-term expenditure growth. The approach here sheds lights on revisions and the serial correlation of revisions in successive years, but may not capture variation across the whole cycle.

We start with full panel estimations along the lines of Fatás (2018) using data for all of the 15 Member States assessed. We then examine sub-groups of Member States based on certain characteristics before looking more closely at revisions in individual Member States. We regress the potential output revisions observed on the actual output (real GDP) revisions observed, plus a constant:

$$Rev_t^{potential} = \alpha + \beta Rev_t^{actual} + \varepsilon$$

We show results including country fixed effects as well as year dummies, though results differ little with or without these. We estimate with Ordinary Least Squares (OLS) applied to a panel of annual observations, while correcting the standard errors for heteroscedasticity and autocorrelation in the residuals in a given cross section. As a robustness check, we also estimate with a further correction of the standard errors for cross-sectional dependence.

As an extension, we also estimate our regressions on a country-by-country basis. We use Newey-West (1987) estimators, again, to allow for heteroscedasticity and autocorrelation.

4. Results

Here we examine the results in terms of our examination of procyclicality. First, we consider our full panel and certain sub-groups. Second, we look at the country-by-country estimations.

4.1 Panel Results

The first set of results for the EU 15 suggest that, for a 1 percentage point revision to real GDP growth rates, we get a predicted 0.3 percentage point revision to potential output growth rates in the same direction (Table 1, first column of results). The subsequent results where we include country and time fixed effects and where we exclude the financial crisis period (2008–2009) confirm the initial findings. Essentially, we see a pass-through of about one-third of the actual real GDP growth rate revision to potential output growth rate revisions.

Table 1. Revisions to Potential Output (Full Panel)
Percentage point revisions to potential output growth rates (1-year-ahead forecasts)

	EU 15	EU 15	EU 15 (excl. fin crisis)	EU 15 (excl. fin crisis)
1-year forecast revision for GDP	0.30*** (0.02)	0.36*** (0.03)	0.28*** (0.02)	0.32*** (0.04)
Constant	.04 (0.05)	.08*** (0.02)	.04* (0.02)	.05*** (0.01)
Observations	225	225	195	195
Countries	15	15	15	15
Adj. R-Squared	0.69	0.71	0.44	0.49
Durbin-Watson Stat	1.55	1.66	1.44	1.64
Country FEs	N	Y	N	Y
Time FEs	N	Y	N	Y

Sources: AMECO; authors' own calculations. Note: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Financial crisis defined as years 2008 and 2009, with these years excluded in stated regressions.

As the results might depend on the size of an economy, we examine two sub-groups based on the size of the economy in terms of GDP. We define "Large Member States (MS)" as Germany, France, Italy, Spain and the UK and define "Small MS" as the remaining members of the EU-15 countries. The results suggest that procyclicality related to forecast and data revisions appears to be a bigger problem for smaller Member States. While larger Member States have a pass-through to potential output closer to about one-fifth to one-quarter (columns 2 and 3, Table 2), smaller Member States are closer to one third (columns 5 and 6, Table 2). Interestingly, this differentiation by size seems to disappear if we exclude the financial crisis period. The estimates for larger Member States rise to 0.31 when the crisis period is excluded, whereas it stays close to one-third for smaller Member States (columns 4 and 7, Table 2). This could correspond to the "asymmetric shocks" literature and the view that larger Member States are relatively more insulated from certain adverse shocks than smaller Member States, for example, in the currency union.

Table 2. Revisions to Potential Output (Sub-Groups)
Percentage point revisions to potential output growth rates (1-year-ahead forecasts)

	Large MS	Large MS	Large MS (excl. fin crisis)	Small MS	Small MS	Small MS (excl. fin crisis)
1-year forecast revision for GDP	0.26*** (0.04)	0.22*** (0.09)	0.31*** (0.07)	0.31*** (0.02)	0.37*** (0.04)	0.32*** (0.04)
Constant	0.02 (0.03)	0.00 (0.05)	0.04 (0.01)	0.05 (0.03)	0.08*** (0.02)	0.05*** (0.01)
Observations	90	90	78	150	150	130
Countries	6	6	6	10	10	10
R-Squared	0.67	0.65	0.56	0.69	0.73	0.49
Durbin-Watson Stat	2.14	2.12	2.23	1.41	1.50	1.54
Country FEs	N	Y	Y	N	Y	Y
Time FEs	N	Y	Y	N	Y	Y

Sources: AMECO; authors' own calculations. Note: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. "Large MS" sub-group consists of DE, FR, IT, ES, and UK. "Small MS" country sub-group consists of PT, GR, IE, LU, FI, SE, BE, DK, AU, and NL. Financial crisis defined as years 2008 and 2009, with these years excluded in stated regressions.

Do Results Vary Over the Cycle?

Another consideration is whether or not procyclicality due to data revisions varies depending on the cycle. To examine this, while recognising the limitations and uncertainties involved in estimating cyclical periods accurately, we avail of the Euro Area Business Cycle Dating Committee data for recession periods in the Euro Area. We define recession periods as years in which two or more quarters are defined as in recession by the Euro Area Business Cycle Dating

Committee (CEPR, 2017).[63] This gives us the "Recession" years 2008, 2009, and 2012. The estimates suggest that procyclicality appears to be slightly stronger during recessions (Table 3), but the differences are not statistically significant between equations.

Table 3. Revisions to Potential Output (Full Panel)
Percentage point revisions to potential output growth rates (1-year-ahead forecasts)

	Expansions	*Expansions*	*Recessions*	*Recessions*
1-year forecast revision for GDP	0.26*** (0.03)	0.31*** (0.04)	0.32*** (0.03)	0.36*** (0.07)
Constant	0.05* (0.02)	0.05*** (0.00)	0.06 (0.05)	0.18 (0.19)
Observations	180	180	45	45
Countries	15	15	15	15
R-Squared	0.32	0.38	0.82	0.84
Durbin-Watson Stat	1.45	1.66	2.20	3.54
Country FEs	N	Y	N	Y
Time FEs	N	Y	N	Y

Sources: AMECO; authors' own calculations. Note: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. We define recessions as years in which two or more quarters are defined as in recession by the Euro Area Business Cycle Dating Committee. This gives us the "Recession" years 2008, 2009, and 2012.

Does Ten-Year Averaging Help?

It might be argued that an important feature of the current fiscal rules is that they use potential output growth rates averaged over ten years, which might insulate from procyclicality due to data revisions. The Expenditure Benchmark is based on a ten-year average, comprising five years of backward-looking data, the current year, and four years of forward-looking data. This ten-year average is used to set the requirements for net primary expenditure growth in year t on the basis of the European Commission spring forecast made in t-1. To examine whether or not this really does alleviate procyclicality, we examine revisions to potential output include the ten-year average instead of the single-year estimates as in previous equations.

The use of ten-year averaging of potential output growth rate estimates only partly softens the problem of procyclicality. We examine four specifications in Table 4: with and without country and time fixed effects, and with and without the financial crisis period included. The pass-through to potential output growth rate revisions of a one percentage point revision to actual output ranges from 0.16 to 0.29. This compares to a range of 0.28 to 0.36 (Table 1) when the single-year estimates are used. The findings suggest that ten-year averaging softens the procyclical tendencies of potential output estimates, though they are still present and the effects remain statistically significant.

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[63] Data for recession periods are available at https://cepr.org/content/euro-area-business-cycle-dating-committee.

Table 4. Revisions to Potential Output (Full Panel)
Percentage point revisions to ten-year averages of potential output growth rates (1-year-ahead forecasts)

	EU 15	EU 15	EU 15 (excl. fin crisis)	EU 15 (excl. fin crisis)
1-year forecast revision for GDP	0.16***	0.23***	0.20***	0.29***
	(0.01)	(0.03)	(0.02)	(0.03)
Constant	0.04	0.08***	0.04*	0.06***
	(0.02)	(0.02)	(0.02)	(0.02)
Observations	225	225	195	195
Countries	15	15	15	15
R-Squared	0.51	0.60	0.37	0.50
Durbin-Watson Stat				
Country FEs	N	Y	N	Y
Time FEs	N	Y	N	Y

Sources: AMECO; authors' own calculations. Note: Robust standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Financial crisis defined as years 2008 and 2009, with these years excluded in stated regressions.

Are Potential Output Revisions Persistent?

If potential output revisions tend not to persist, then one might argue that the implications for fiscal policy are less concerning. To examine this, we look at the correlations of revisions over time. We take potential output revisions and regress them on their own one-period lag. As Table 5 shows, the coefficient on the own lags are positive and, in all but one case, statistically significant, implying that revisions to potential output growth rates in a given direction do tend to persist. This is problematic for fiscal policy as it implies that, over time, growth rates used to inform sustainable growth rates will track up and down in systematic ways.

Table 5. The Persistence of Revisions to Potential Output
Percentage point revisions to potential output growth rates (1-year-ahead forecasts)

	EU 15	EU 15	EU 15 (excl. fin crisis)	EU 15 (excl. fin crisis)
Potential output revision$_{t-1}$	0.14***	0.16**	0.11**	0.10
	(0.07)	(0.07)	(0.05)	(0.07)
Constant	-0.14	-0.13***	0.00	0.00
	(0.05)	(0.04)	(0.04)	(0.03)
Observations	210	210	180	180
Countries	15	15	15	15
R-Squared	0.01	0.50	0.02	0.50
Country FEs	N	Y	N	Y
Time FEs	N	Y	N	Y

Sources: AMECO; authors' own calculations. Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Financial crisis defined as years 2008 and 2009, with these years excluded in stated regressions.

4.2 Country-by-Country Results

It is informative to look at country-by-country results for discerning differences in terms of the extent of procyclicality observed. However, the results are impaired by the small sample sizes involved (we only have 15 vintages for each country). We summarise the results in Figure 4 by order of coefficient size with standard error bands shown for the 95 per cent confidence interval.

Figure 4. Sensitivity of Potential Output to Actual Output

Estimated coefficients of percentage point revisions to potential output growth rates
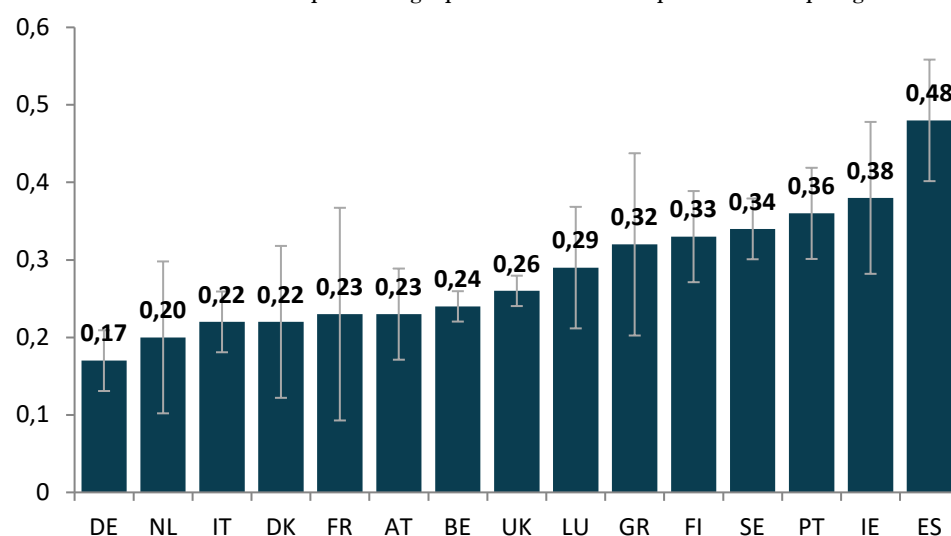
Sources: AMECO; authors' own calculations. Note: Coefficients on individual country regressions are shown (all statistically significant at 95 per cent level of confidence). Standard error bands are shown for 95 per cent confidence interval. Caution is warranted as sample is only 15 observations for each country. Appendix A shows results for the 10-year averages of potential output.

It is obvious from the results that smaller the larger Member States do tend to have less of a problem with procyclicality. The estimated coefficients for Germany (0.17), Italy (0.22), and France (0.23), for example, contrast with much larger coefficients for Ireland (0.38), Portugal (0.36), Sweden (0.34) and Finland (0.33). A notable exception is Spain. Though it is the fifth largest economy in terms of nominal GDP, Spain appears to have the largest problem in terms of procyclicality. Table 6 shows the full set of country-by-country results. Figure 5 gives a closer sense of the underly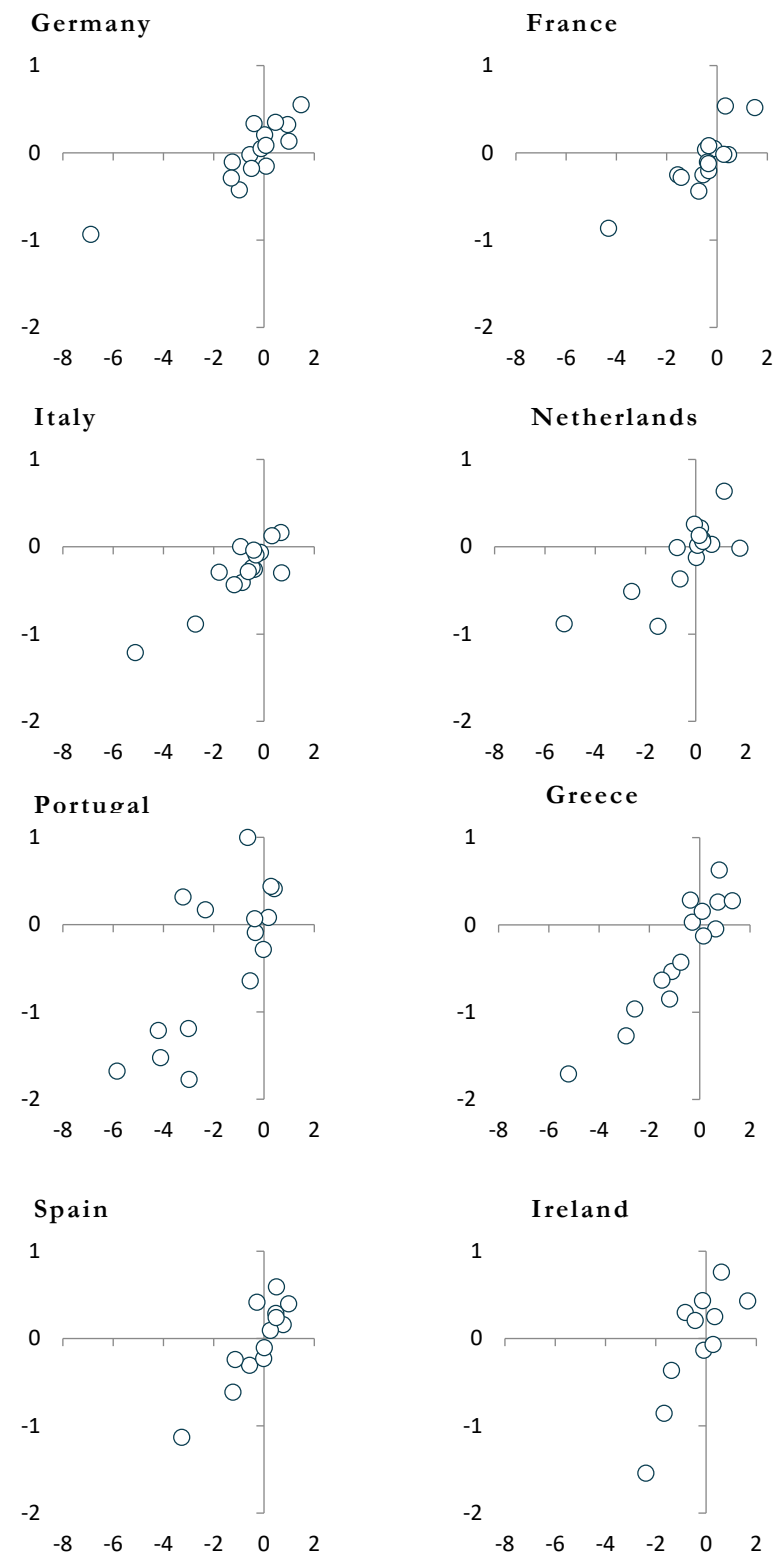ing data behind all of our estimations. It plots the revisions to potential output against the actual output revisions. In all cases, it is apparent that the relationship is positive. For some countries, such as Spain and Ireland, the slope is clearly steeper, when compared against the likes of Germany and the Netherlands as is borne out in the regression results.

Table 6. Revisions to Potential Output (Individual Countries)

	DE	FR	IT	ES	UK			
1-year forecast revision for GDP	0.17***	0.23***	0.22***	0.48***	0.26***			
	(0.02)	(0.07)	(0.02)	(0.04)	(0.01)			
Constant	0.08	0.04	-0.09	0.13	-0.02			
	(0.05)	(0.07)	(0.06)	(0.09)	(0.02)			
Observations	15	15	15	15	15			
R-Squared	0.73	0.72	0.77	0.82	0.94			
Durbin Watson Stat	2.28	1.48	2.22	2.00	2.00			
	PT	GR	IE	LU	FI	SE	BE	DK
1-year forecast revision for GDP	0.36***	0.32***	0.38***	0.29***	0.33***	0.34***	0.24***	0.22**
	(0.03)	(0.06)	(0.05)	(0.04)	(0.03)	(0.02)	(0.01)	(0.05)
Constant	-0.03	0.18	0.17	-0.09	0.00	0.15*	0.04*	-0.02
	(0.09)	(0.14)	(0.21)	(0.16)	(0.08)	(0.08)	(0.02)	(0.10)
Observations	15	15	15	15	15	15	15	15
R-Squared	0.87	0.50	0.72	0.57	0.86	0.86	0.94	0.35
Durbin-Watson Stat	1.10	1.26	0.97	1.07	2.00	1.65	2.18	1.78
	AU	NL						
1-year forecast revision for GDP	0.23***	0.20***						
	(0.03)	(0.05)						
constant	0.04	-0.01						
	(0.05)	(0.08)						
Observations	15	15						
R-Squared	0.81	0.59						
Durbin-Watson Stat	1.62	1.93						

Sources: AMECO; authors' own calculations. Note: Robust standard errors in parentheses *** p < 0.01, ** p < 0.05, * p < 0.10.

Figure 5. Revisions to Potential Output
Percentage point revisions (1-year-ahead forecasts)

Germany

France

Italy

Netherlands

Portugal

Greece

Spain

Ireland

Luxembourg

Belgium

Denmark

Austria

Finland

Sweden

UK
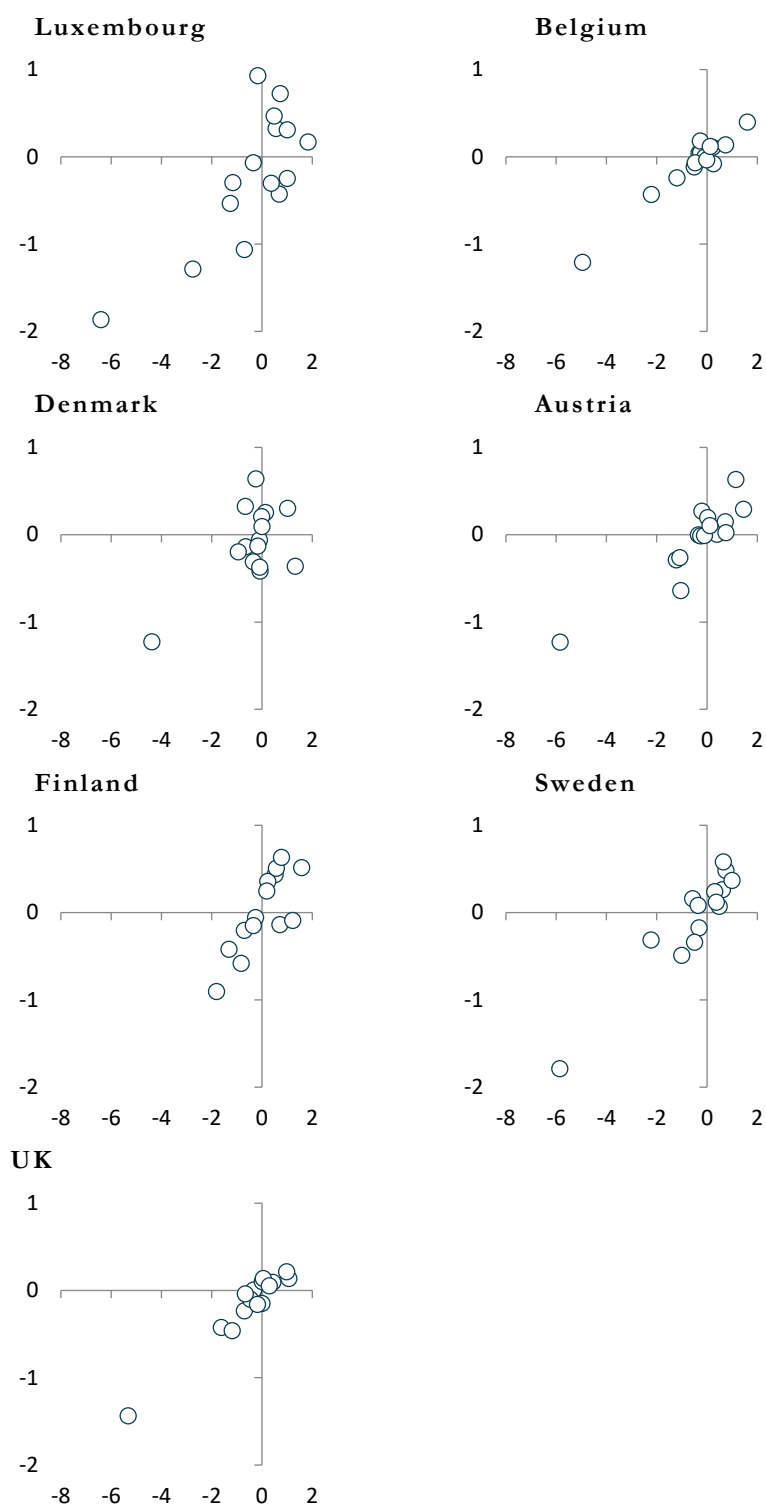
Sources: AMECO; authors' own calculations.

Note: Horizontal x-axis shows revisions to actual output (real GDP) growth rate forecasts. Vertical y-axis shows revisions to potential output growth rate estimates.

4.3. Are these Findings Economically Meaningful?

A question worth asking is whether or not the extent of procyclicality associated with forecast and data revisions we find is meaningful in terms of the public finances and the fiscal rules? One way to explore this question is to consider the implications for the current spending rule (Expenditure Benchmark). We look at what the revisions to potential output can mean for the allowable expansion in annual government expenditure. That is, we take a given country's

expenditure base and examine how much of an additional increase in expenditure that country would be allowed to pursue under the spending rule—if adhered to at minimum—given revisions to potential output coming from actual output revisions.

Table 7 shows the country-by-country results based on estimates for ten-year averages of potential output growth rates. This is what is applied for the fiscal rules (Expenditure Benchmark).

We trace through the implications for a given 1p.p. change in actual output in terms of their impact on potential output estimates and the resulting increase/decrease in allowed spending growth. If we take the example of Spain, the revisions shown imply a change in allowed expenditure of €0.89 billion (0.2 per cent) for a given 1p.p. revision to actual output growth. There are two important aspects to note:

- First, typical forecast errors may be larger than just 1 percentage point. To address this, Table 7 also considers the typical Root Mean Squared Forecast errors computed by González Cabanillas and Terzi (2012) for the pre-crisis period: 1969-2007. Scaling up the impacts using their typical forecast errors, we see that, for Finland, for example, the implied change in allowed expenditure rises from 0.18 per cent to 0.29 per cent. The implications are more pronounced for countries where forecast errors are typically more severe such as in Luxembourg (0.6 per cent) and in Ireland (0.5 per cent).

- Second, these revisions are for a single-year change in actual output of just 1 percentage point relative to expectations. Multi-year changes, serially correlated over the cycle are likely to happen. Under the plausible assumption that an expansion period lasts five years, then these growth rate effects would cumulate and scale up to a factor of five.

Table 7. Net Spending Implications Arising from Procyclicality

Country	Ten-Year Avg. Rev to Potential for 1p.p. GDP Rev (p.p.)	Corrected Government Expenditure Aggregate (€bn)	Spending Revision (€bn)[1]	Spending Revision (% change)[1]	Typical Real GDP Forecast Error [2]	Typical Spending Revision (€bn)[2]	Typical Spending Revision (% change)[2]
AT	0.11	€181	€0.20	0.11	0.96	€0.19	0.11
DE	0.08	€1,434	€1.09	0.08	1.62	€1.77	0.12
DK	0.13	€150	€0.20	0.13	1.21	€0.24	0.16
UK	0.12	€913	€1.13	0.12	1.35	€1.52	0.17
NL	0.12	€321	€0.40	0.12	1.34	€0.53	0.17
IT	0.10	€781	€0.77	0.10	1.7	€1.31	0.17
FR	0.15	€1,269	€1.95	0.15	1.17	€2.28	0.18
SE	0.18	€225	€0.40	0.18	1.04	€0.41	0.18
PT	0.16	€79	€0.13	0.16	1.14	€0.15	0.19

ES	0.19	€461	€0.89	0.19	1.02	€0.91	0.20
BE	0.13	€225	€0.30	0.13	1.5	€0.44	0.20
GR	0.20	€77	€0.15	0.20	1.19	€0.18	0.24
FI	0.18	€120	€0.22	0.18	1.58	€0.35	0.29
IE	0.20	€74	€0.15	0.20	2.56	€0.38	0.51
LU	0.23	€25	€0.06	0.23	2.66	€0.15	0.60

Sources: European Commission; authors' own calculations. Note: Corrected Expenditure Aggregate is the measure of spending currently used in the fiscal rules for the Expenditure Benchmark base from which net spending can grow.
[1] Revisions here refer to the percentage point revision to potential output growth rates (using the ten-year averages) for a given one percentage point revision in actual output (real GDP).
[2] Estimates of typical forecast errors are taken from González Cabanillas and Terzi (2012) and cover the pre-crisis period, 1969-2007.

If we apply the plausible assumption that an expansion period lasts five years, then we can examine what the effects of procyclical potential output estimates might be for each of the Member States considered assuming these effects are repeated each year in the upswing. Table 8 shows these impacts. We base the estimates on the same typical forecast errors used in Table 7. Impacts for Ireland rise to just under €2 billion cumulatively: a 2.6 per cent departure from original spending levels due to procyclicality alone. For Luxembourg, the €0.8 billion cumulative impact would represent a 3 per cent departure due to procyclicality. Finland, Greece, Spain, and Belgium all see departures of 1 per cent or more. This is illustrative, but it gives a clear sense of how the effects of procyclicality in potential output measurement can compound over time to lead to wide divergences from more sustainable growth rates in underlying government spending.

Table 8. Net Spending Implications from Procyclicality Over an Illustrative 5-Year Expansion

Country	Procyclical Spending Revision Over 5-Year Window (€bn)	% Change (Over 5 Years, Relative to Starting Expenditure Level)
AT	€1.0	0.5
DE	€8.8	0.6
DK	€1.2	0.8
UK	€7.6	0.8
NL	€2.7	0.8
IT	€6.6	0.8
FR	€11.4	0.9
SE	€2.1	0.9
PT	€0.7	0.9
ES	€4.6	1.0
BE	€2.2	1.0
GR	€0.9	1.2
FI	€1.7	1.5
IE	€1.9	2.6
LU	€0.8	3.0

Sources: European Commission; authors' own calculations. Note: Spending revisions here show an illustrative five-year cumulative impact on spending levels arising from procyclicality. We use potential output growth rates based on the ten-year averages as used in the application of the Expenditure Benchmark. Estimates are based on typical forecast errors, which are taken from González Cabanillas and Terzi (2012) and cover the pre-crisis period, 1969–2007.

5.   Discussion and the Future of the EU Fiscal Framework

The EU fiscal framework is set for a review in 2019. Despite successive generations of the SGP, the rules have failed to fully meet their objectives. Recent debate on the future rules has focussed

on the use of expenditure rules, modelled around the existing Expenditure Benchmark, as a promising approach to reform. This paper examines whether the Expenditure Benchmark (EB) could play a useful role in a future EU fiscal framework, focussing in particular on the measurement of potential output and the procyclicality of the estimates underpin the EB, as well as a number of other features of the EB. Based on a data-driven assessment of how the rules are likely to play out in practice and experience with the Expenditure Benchmark, this paper assesses how an expenditure rule could support effective countercyclical policy.

This analysis suggests that the performance of estimates of potential output is critical to the success of this approach. However, the EU Commonly Agreed Methodology (CAM) estimates tend to follow the cycle and estimates are subject to significant revisions in the same direction as actual growth. These effects would have a meaningful impact and are likely to be reinforced by the degree to which estimates track actual output and the use of forecasting/extension methods that are applied over the forecast horizon.

Policy solutions could include revising the EU Commonly Agreed Methodology (CAM) for estimating potential output or, more plausibly, switching to alternative methods that better capture the cycle, possibly based on domestic methods endorsed by national Independent Fiscal Institutions (IFIs). No method is likely to be perfect, but alternative and more reliable estimates of potential output are needed. An alternative approach—that would also need better measures of potential growth—is to make institutional changes to allow Rainy-Day Funds (RDFs) to operate within the SGP framework (Casey et al., 2018) to correct the procyclicality of the rules.

National IFIs could play a useful role in developing and validating measures of potential that more accurately reflect country circumstances, including through work on medium term forecasts and ways of estimating underlying potential. This is likely to require a suite of models approaches as well as the use of judgment, including in trying to identify temporary and permanent shocks. Some methods are better designed to identify shifts in potential than the CAM and can be better adapted to country circumstances, both to estimate potential growth rates and the future path of potential output. These included methods that bring in information from the current account and financial variables, as well as more structural models of the economy. Forecasts for potential at a 5-year horizon should be published on a regular basis to help their evaluation and improve performance.

The issue of accurately assessing the path of potential output should be at the centre of fiscal policy frameworks, recognising that this is necessarily a challenging task and that policymakers need to try to learn the underlying nature of the economy and structural changes to it. A more robust approach would provide a firm foundation for any fiscal framework, including an expenditure-based rule.

The implementation of the Expenditure Benchmark reveals a number of other issues with its design that can provide misleading guidance, including the treatment of investment and unemployment-related spending. In addition, the implementation of the 10-year averaging rule and "ratchet effect", which comes from taking spending the previous year as a starting point for spending in any given year, can have a destabilising effect on the path of spending, not least because previous overruns are not corrected. There are potential trade-offs between the stability of specifying fixed paths for multiple years and not overweighting a single set of potential outputs estimates.

Appendix A

Figure A1. Sensitivity of Potential Output to Actual Output
Estimated coefficients of percentage point revisions to potential output growth rates (using the ten-year averages for potential output)
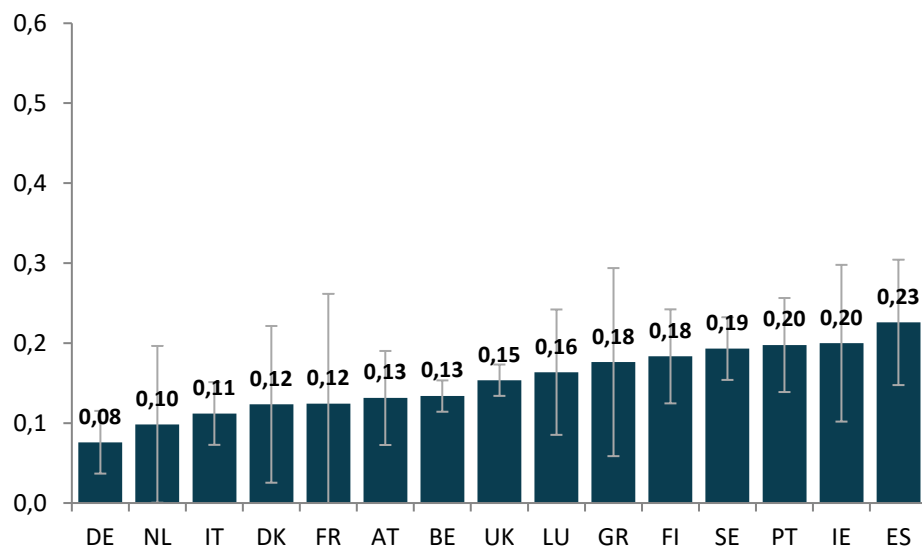
Sources: AMECO; authors' own calculations.
Note: This graph shows results for the 10-year averages of potential output. Coefficients on individual country regressions are shown (all statistically significant at 95 per cent level of confidence). Standard error bands are shown for 95 per cent confidence interval. Caution is warranted as sample is only 15 observations for each country.

References

Artis, M.J., Z.G. Kontolemis, and D.R. Osborn, (1997). "Business Cycles for G7 and European Countries". The Journal of Business, Vol. 70, No. 2 (April 1997), 249–279.

Artis, M.J., H. M., Krolzigy, and J. Toro. "The European business cycle". Oxford Economic Papers 56 (2004), 1–44.

Auerbach A.J. and Y.Gorodnichenko, (2012). "Measuring the Output Responses to Fiscal Policy" American Economic Journal: Economic Policy, Vol. 4, No. 2 (May 2012), pp. 1-27.

Bénassy-Quéré, A. et al., (2018). "Reconciling risk sharing with market discipline: A constructive approach to euro area reform", CEPR Policy Insight No. 91, January.

Barnes, S., Botev, J., Rawdanowicz, L. and J. Strasky, (2016). "Europe's new fiscal rules". Review of Economics and Institutions, Vol. 7, No. 1, Winter-Spring.

Batini, N., G. Callegari, and G. Melina, (2012). "Successful Austerity in the United States, Europe, and Japan," IMF Working Paper No. 12/190 (Washington: International Monetary Fund).

Blanchard, O. J., and D. Leigh, (2013). "Growth Forecast Errors and Fiscal Multipliers". American Economic Review, American Economic Association, vol. 103(3), pages 117-20, May.

Blanchard, O. J., and L. H. Summers, (1986). "Hysteresis and the European Unemployment Problem". NBER Macroeconomics Annual 1986, Volume 1 (MIT Press).

Blanchard, O. J., and D. Quah, (1989). "The Dynamic Effects of Demand and Supply Disturbances," American Economic Review 79(4).

Casey, E., (2018). "Inside the Upside Down: Estimating Ireland's Output Gap." Irish Fiscal Advisory Council Working Paper No. 5, January 2018. Dublin: Irish Fiscal Advisory Council. Available at: https://www.fiscalcouncil.ie/wpcontent/uploads/2018/01/Casey-E-2018-Estimating-Irelands-Output-Gap.pdf

Casey, E., Conroy, N., Timoney, K. and A. Osés Arranz, (2018). "Designing a Rainy Day Fund to Work within the EU Fiscal Rules". Irish Fiscal Advisory Council Working Paper No.6, May.

CEPR, (2017). "Euro Area Business Cycle Dating Committee: A Slow but Steady Euro Area Recovery", London, August 2017. Available at: https://cepr.org/sites/default/files/EABCDC-Findings-August-2017.pdf

Christofzik, D., Feld, L., Reuter, W. and M. Yeter, (2018). "Uniting European Fiscal Rules: How to Strengthen the Fiscal Framework". German Council of Economic Advisers Working Paper 04/2018.

Claeys, G., Darvas, Z. and A. Leandro, (2016). "A Proposal to Revive the European Fiscal Framework", Bruegel Policy Contribution, Issue 2016/27.

Coibion, O., Gorodnichenko, Y., and M. Ulate (2017), "The Cyclical Sensitivity in Estimates of Potential Output", NBER Working Paper No. 23580.

Cuerpo, C., Cuevas A., and E.M. Quilis, (2018). "Estimating Output Gap: A Beauty Contest Approach". SERIEs, August 2018, 9 (3), 275–304.

CSO, (2018). "Modified Gross National Income". July 2018. Dublin. Available at: https://www.cso.ie/en/releasesandpublications/ep/p-nie/nie2017/mgni/

Darvas, Z., Martin, P. and X. Ragot, (2018). "European Fiscal rules require a Major Overhaul". Bruegel Policy Contribution, Issue 2018/18.

Darvas, Z. and A. Simon, (2015). "Filling the Gap: Open Economy Considerations for More Reliable Potential Output Estimates." Bruegel Working Paper 2015/11.

European Commission, (2017). "Proposal for a Council Directive laying down provisions for strengthening fiscal responsibility and the medium-term budgetary orientation in the Member States". COM(2017) 824 final.

Fatás, A., (2018). "Fiscal Policy, Potential Output and the Shifting Goalposts". Paper prepared for the "The Euro at 20" conference organized by the IMF and Central Bank of Ireland in Dublin, June 25-26, 2018.

Feigl, G., M. Marterbauer, J. Hofmann, M. Schnetzer, and S. Zuckerstätter, (2018). "iAGS – independent Annual Growth Survey 6th Report: Repair the Roof When the Sun is Shining", AK Wien (Austria), ECLM (Denmark), IMK (Germany), OFCE (France), available at www.iags-project.org

González Cabanillas, L. and A. Terzi, (2012). "The Accuracy of the European Commission's Forecasts Re-examined". European Economy Economic Papers, No. 476, December, Brussels: European Commission. Available at: http://ec.europa.eu/economy_finance/publications/economic_paper/2012/pdf/ecp476_en.pdf

IFAC, (2015). "Analytical Note No. 7: The EU Expenditure Benchmark: Operational Issues for Ireland in 2016", April 2015.

Network of EU IFIs (2018). "A Practitioner's Guide to Potential Output and the Output Gap". Available at: https://www.euifis.eu/download/ogwg_paper.pdf

Newey, W. K., and K. D. West, (1987). "A Simple, Positive Semi-Definite Heteroskedasticity and Autocorrelation Consistent Covariance Matrix," Econometrica, 55(3), 703–708.

OECD, (2018). Economic Survey: Euro Area, OECD, Paris.

Sargent, T., (1987). "Dynamic Economic Theory", Harvard University Press.

Stadler, G., (1990). "Business Cycle Models with Endogenous Technology". The American Economic Review, 763–778.

Woodford, M., (2011). "Simple Analytics of the Government Expenditure Multiplier". American Economic Journal: Macroeconomics. Vol. 3, No. 1, 1-35.

4 Costing election manifestos: Experience from EU IFIs

Janis Platais and Dace Kalsone, Latvian Fiscal Discipline Council

Sander van Veldhuizen, CPB Netherlands Bureau for Economic Policy Analysis

1. Introduction

Independent evaluations of election manifestos are internationally on the rise. Elections are the moment for political parties to present their ambitions and for citizens to set the course. Transparent and realistic campaign promises enable citizens to make better (informed) choices. Independent assessments of the economic plans underlying the election manifestos by independent fiscal institutions (IFIs) attempt to ensure this. Until recently, just the Australian PBO and the CPB Netherlands Bureau for Economic Policy Analysis (CPB) had a role in costing election manifestos. However, in the last two years the Canadian PBO and the Latvian FDC picked up this function as well (OECD IFI Database, 2019). More generally, the interest to expand election costings has been growing over the years.

International experience shows that there is no one size fits all approach to costing election manifestos. In Australia, parties are legally required to undertake a costing of their plans with the results being presented only after the election. In the Netherlands, the CPB has been requested since 1986 by many political parties to assess the fiscal and economic effects of their election platforms. Over the years, the scope of the assessment has varied, but the core of the analysis focuses on the direct fiscal cost of the programme, its macroeconomic and income effects in the next parliamentary term and long-run effects on labour supply and the sustainability of public finance. In Latvia, the Fiscal Discipline Council (LFDC) engaged political parties into an exercise of political platform fiscal plausibility study. The different approaches show that such an exercise needs to fit with local circumstances.

This paper discusses the experiences from the recent Latvian and Dutch election costings. It starts by explaining how the election costings in both countries were established. Then, the Latvian experience is extensively discussed along the lines of the engagement of political parties, how it was received by LFDC, followed by a brief overview of the results. Next, the latest Dutch election costings exercise, called Charted Choices, is discussed. Here, the modifications made to the process, a brief overview of the results and the resulting coalition agreement are looked at. This paper concludes with some lessons for the future.

2. Introduction of election costings in Latvia and the Netherlands.

2.1. Latvian IFI: the decision to embark on the political parties' survey on fiscal discipline issues and the goals of the exercise

The Fiscal Discipline Law (FDL) adopted in 2013 prior to Latvia's transition to euro currency establishes a Fiscal Discipline Council of the Republic of Latvia (LFDC) for the purposes of fiscal surveillance. The key tasks of LFDC have been the assessment, if the Government follows the requirements of the FDL in setting the macroeconomic framework, following the fiscal rules during the preparation, execution of the budgets, as well as ex-post assessment of the budget outturn, while having the flexibility to address other issues important for ensuring the fiscal discipline. LFDC communicates its findings to the Prime Minister, the Parliament, and the Finance Minister, as well as broad public through the media. Responses of the Ministry of Finance (MoF) are also published. LFDC operates similar to many Independent Fiscal Institutions (IFIs) set up in EU following the Financial crisis of 2008-2010.

The FDL provides the flexibility to address issues that the LFDC finds important for the fiscal governance. LFDC in late 2017 decided to assume a role in conducting a survey of political parties on the fiscal discipline prior to the national elections in 2018, while such activity is not specifically mandated.

Prior to upcoming elections of the Latvian Parliament in October 2018 LFDC considered it important to encourage the political parties to extend realistic promises during their campaigns. In previous election campaigns different representatives of political parties made promises, which could not be reasonably financed without drastic revenue measures. Some politicians frequently responded that extra revenues for costly social programs could be raised through aggressive campaigns against tax evasion, while others promised sudden increase in the economic growth providing extra revenues for the budget. LFDC has been mindful of international research pointing at the effectiveness of the Coalition agreements to secure the achievement of the fiscal policy objectives.

A number of policy analysts started stressing the need to question politicians regarding their policy intentions as political parties started gearing up for the campaign for the national elections scheduled for October 2018. It has been important to bring the fiscal impact issues into the open while political parties shower the electorate with promises. LFDC agreed that it would be advisable for the political parties to make commitments for responsible fiscal policies, while this has not been found as an argument for winning harts during the election campaign.

The LFDC also studied international experience from counterparts at OECD meetings of Parliamentary budget offices and IFIs. Specific experience in Europe had been accumulated as an effort of the Netherlands' Independent Fiscal institution (IFI) *CPB*, which has been a reference for launching the costing exercise for political party programmes in Latvia. The CPB has performed the costing of political parties' proposals for three decades, inspiring LFDC to attempt following the lead for the first time.

Learning from international experience LFDC discussed the option of trying to engage the political parties into a costing exercise, which would require more effort to substantiate the pre-election promises. It was decided that the parties would be invited to assess the fiscal impact of different policy measures to the extent possible, focusing separately on measures, for which the parties would "allocate" funds, and revenue measures – to "pay" for the cost of the priority policies.

LFDC members in internal debate stressed the necessity of carefully approaching the political parties not to undermine the cooperation with the Parliament after the elections. It was understood that LFDC, while engaging the political parties cannot afford selective treatment and the communication should be kept professional and cordial.

LFDC also should have very clear understanding that our resources are very limited. The small number of LFDC staff and the lack of actual policy costing experience would not allow providing high quality support to all 16 political parties running for elections, which may come up with huge number of policy initiatives. The initial idea was to limit the engagement to the political parties having larger support in the opinion polls and having a realistic outlook of passing the threshold of five percent support of the voters to win the elections. Meanwhile, it turned out difficult to exclude smaller political parties from the survey for a variety of reasons. Finally, it was decided to put the burden of arriving to cost estimates to political parties themselves, while LFDC would stand by with methodological support.

Was it appropriate for LFDC to get involved into the exercise of surveying the political parties? One argument for the motion was that this has been international experience as learned from OECD counterparts, while slightly less in Europe (except an excellent case of Netherlands). Another was that there would be no other entity in the country motivated and capable to assume these responsibilities.

LFDC already has some experience in similar exercises, while smaller scale. Specifically, LFDC collected from line ministries the estimates on fiscal impact for implementing Government action plan in 2015[64]. In the summary note[65] following the exercise LFDC highlighted the unrealistic financial expectations of the plans included in the Government declaration and Coalition agreement grossly exceeding the financial resources realistically available. LFDC also had been engaging a research outlet for the third year in row to conduct opinion polls on the matters related to fiscal responsibility. These have been targeting the public knowledge on important matters of fiscal policy as well as the opinions on the government policy priorities.

LFDC while launching the survey has been primarily looking for political parties making a commitment to follow the requirements of the FDL and drop the plans for its relaxation. Politicians occasionally have been complaining that their brilliant policy initiatives have been constrained by the harsh limitations of the FDL and the relaxation of some requirements would benefit the economy and allow implementing important policy priorities. LFDC tried to encourage the political parties to include their commitment to responsible fiscal policies into the party pre-election programs and to sponsor reflecting these commitments in the coalition agreement after the elections.

The purpose of the survey was to document prior to elections party intentions with significant fiscal implications for the duration of the political cycle for four years following the elections – 2019-2022. Political parties would be invited to list the priorities for which they would allocate additional funding (in excess of the policies already funded under the MTBF). The priorities for modification of tax and revenue matters should also be costed to assess the impact of these, particularly, if the policy measures bring to the reduction of revenue.

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[64] Valdības rīcības plāna fiskālās ietekmes 2014.-2018.gadam. Government Action plan fiscal impact tables for 2014-2018, available: *http://fdp.gov.lv/files/uploaded/20150331_VRP_atbildes.xlsx*, accessed on 04/02/2019.

[65] Valdības rīcības plāna fiskālās ietekmes kopsavilkums. Government Action plan fiscal impact summary note, available: *http://fdp.gov.lv/files/uploaded/20150331_VRP_kopsavilkums.doc*, accessed on 04/02/2019.

The policy measures to compensate for the expenditure increase or reduction in revenues should also be specified. LFDC tried to encourage the political parties to formulate structural reforms resulting into cost savings (as negative expenditure increases) or specific revenue measures bringing to revenue increase.

The creation and use of contingency reserves and provisions has been a focus of public debate, while the assessment and measurement of fiscal risks has received less attention. These have been important because the reserves have been used as a source for funding some last minute political pet projects during the parliamentary budget scrutiny. Meanwhile, fiscal risk assessment received little attention during the rush of budgets and MTBFs through the Parliament.

Some competition among the political parties was considered as a selling point with an opportunity for the parties to position themselves going one step further and assessing fiscal plausibility of the pre-election promises. The political parties should create some capacity to assess possible cost implications of their most important policy priorities and to present their priorities as substantiated not a wild dream. This would require LFDC to provide equal opportunities for all in completing the survey and strong ownership.

2.2. CPB: over three decades experience with election costings

The CPB, established in 1945, has a long standing tradition in Dutch policy evaluation. Over time the CPB has acquired and cemented an undisputed reputation for independence and impartiality for producing high-quality economic analyses and forecasts (Beetsma et al, 2013). In the Netherlands the CPB is recognised for its profound knowledge of public institutions, as well as for being deeply embedded in the Dutch policy processes. Its remit covers a broad range of economic research activities, which, in turn, feed into the policy area as well as the political decision-making area. In the run-up to elections the CPB offers all political parties the opportunity to have their election platforms assessed.

Since 1986 the CPB performs election costings. In 1986, three political parties approached the CPB Netherlands Bureau for Economic Policy Analysis to have their election manifestos economically assessed. This proved to be the start of a tradition, which internationally has sparked both wonder and marvel. Since 1986 the CPB has published nine editions of 'Charted Choices', in which the results of assessments of the election manifestos are reported. The assessments contain both ex-ante fiscal consequences of the policy measures as ex-post consequences on the EMU balance, macroeconomic effects and purchasing power. Over the years the assessments have become more elaborate and more detailed (Bolhuis, 2018), which is also reflected by the number of pages of the actual publication (Figure 1, left). Also, the number of participating political parties has increased from 3 in 1986 to 11 in the 2017 edition (Figure 1, right).

Figure 1. Number of pages grow, indicating more detail (left) and more political parties participate over the years (right)
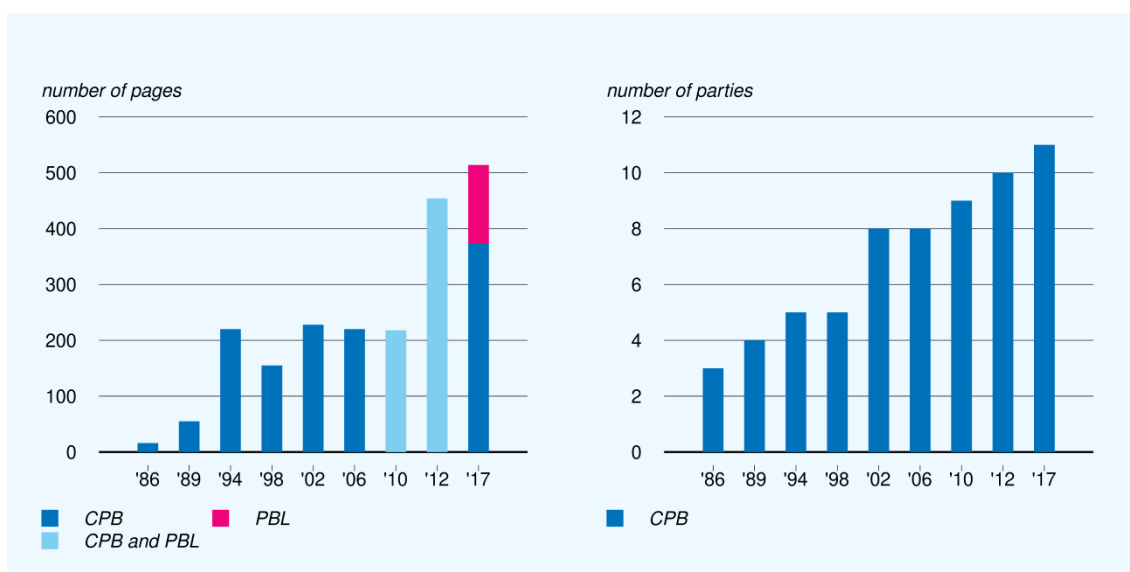
With these financial-economic calculations, the bureau historically plays an important role in the Dutch debate on economic policy before and after the parliamentary elections. Several weeks before the parliamentary elections the CPB publishes the evaluation of the election manifestos. By publishing well ahead of the election, direct impact of Charted Choices on the election outcome is being limited. Since the CPB conducts Charted Choices at the request of political parties, any party that does not want its platform to be included in Charted Choices is left out. In practice, all major political parties participate because of the revelation principle: by not participating in Charted Choices a political party signals to voters that its program could be economically and financially unsound (Bos and Teulings, 2012).

The added value of Charted Choices is twofold. First, the process that disciplines participating parties and sanitizes the debate. Political parties provide the CPB with a financial translation of their manifesto (the measures are reported meticulously, so as to enable consistency checks with the manifesto itself by the media and other parties). This set of measures is then reviewed in various ways. An ex-ante budgetary test is applied, a kind of reality check: is the measure feasible? Is the costing realistic? The ex-ante budgetary test is followed by ex-post economic analysis with the CPB models, assuming that the party in question has a majority in parliament. This provides insights in the effects during the governing period on the standard economic indicators (growth, inflation, unemployment, income distribution, and budget) and in the long term on labour supply and sustainable public finances. The results are published in Charted Choices a couple of weeks before the election itself. This exercise sanitizes the debate, because it ensures a level of specificity in the proposals and prevents blatantly false statements.

Second, Charted Choices facilitates the process of forming a coalition agreement. The Netherlands there is no voting threshold for election to the House of Representatives, which results into many different parties being represented in parliament. Historically, no single party has ever obtained an overall majority. Hence, immediately after the election, a number of parties controlling a majority in parliament usually try to form a coalition by negotiating a coalition agreement. Charted Choices is a natural starting point for the coalition negotiations (Suyker, 2013). During this process the CPB plays an important role. At the request of the informateur, the CPB calculates the financial-economic consequences of the draft coalition agreement and

provides the results informally and confidentially to the political negotiators (Bolhuis, 2018). The coalition agreement stipulates the plans for the next four years and is very detailed. Since parties find it difficult to compromise on policies halfway the election cycle, they prefer to settle at the start of the period. Once the negotiators have reached an agreement, the CPB publishes the assessment of the financial-economic annex of the coalition agreement. All nine Charted Choices have been followed up by a CPB analysis of the financial-economic annex of the coalition agreement (CPB, 1994b, 1998b, 2002b, 2007, 2010b, 2012b, 2017d; Lubbers, 1989; De Koning, 1986). Since 1986 the published CPB assessment of the coalition agreement forms the foundation of the financial-economic policy of the just started cabinet period. And during the cabinet period it continues to serve as being the starting point for financial-economic discussions between the government and the House of Representatives (Suyker, 2015).

3. Latvia: organisation, experience and results

3.1. How the survey was organised?

The intention for LFDC to conduct the survey was made public after a Council meeting in December 2017. Media picked up the news item, while this has not been elaborated in great detail. Meanwhile, complaints of smaller political parties which did not take part in the survey after the event might indicate that the early communication of the intentions by LFDC have been low key.

During the preparatory phase LFDC came to a conclusion that a simple MS Excel based model[66] would serve as a template for the survey. The template included macroeconomic projections based on the Latvia's Stability Programme for 2018-2021 submitted to the European Commission in mid-April 2018 and linked worksheets to provide the political parties with a tool to enter their priority policy measures having significant fiscal impact segregated into separate sections: (i) expenditure; (ii) revenue; (iii) contingency allocations and provisions; and (iv) fiscal risks. Besides these the protected Excel workbook would allow the parties to see the summary assessment, including the impact of the policy measures on the fiscal balance, aggregate revenue and expenditure, and changes to government debt.

The baseline scenario allowed political parties to demonstrate their intent of bringing forward priorities, which would modify the policies of the current government as outlined in the government's Stability Programme. Increases or decreases in the revenue or expenditure estimates, allocation decisions to contingency reserves or provisions, listing significant fiscal risks would determine the policy agenda of the political parties having significant fiscal impact.

Six months before the elections LFDC addressed the political parties represented in the Parliament (six parties in total) in a meeting of the Budget and Finance (Tax) Committee of the Parliament as the first attempt of direct contact on the survey intention. Meanwhile other political parties have been contacted for engagement through e-mail and phone for meeting at a later stage. The meeting involved a short presentation of the concept of the survey and an invitation for the parties to nominate representatives to cooperate with LFDC on the survey. The members of Parliament on the Committee meeting turned out very frank stressing unprecedented invitation for openness and fiscal responsibility in the survey. The parties represented in the Parliament have been also invited for a more technical meeting with invitations extended to political parties not yet represented in the Parliament. This second

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[66] Survey questionnaire with examples (in English) available here: http://fiscalcouncil.lv/files/uploaded/political_parties_survey_questionnaire_with_examples.xlsx, accessed on 04/02/2019.

meeting was conducted shortly after the first. The meeting discussions are still available in the video at the LFDC website.

The political parties not represented in the Parliament have been harder to engage. The list of parties along with their e-mail addresses participating in the previous nation elections have been available from the website of the Central Election Commission. The contacts of new political parties intending to participate in the elections have been searched on the web, while this had risks of omitting other parties, which still had the time to decide on their participation in the elections. Earlier arguments of inviting only those political parties, which had a realistic chance receiving sufficient support of the voters (at least 5 percent) to obtain representation in the Parliament, engaged significant risks of conflict for them, being excluded from the process.

LFDC thought it important to ensure equal treatment of all participants in the survey. LFDC early on made available the MS Excel questionnaire, all guidance and the rules for engagement on LFDC's website[67]. The political parties have been encouraged to provide the contacts of their representatives to LFDC for an engagement to follow.

The second round of meetings was on individual basis between LFDC and the representatives of the political parties to address individual concerns and help shaping approaches to assess the impact of priority measures and completing Excel tables of the questionnaire. At the start of the meeting the representatives of the political parties and LFDC signed a Consent for Participation outlining the rules of engagement, including the obligations of LFDC to ensure equal treatment of the parties participating, the responsibility of the parties for the information submitted in the survey and their right to withdraw from submitting the questionnaire with priority measures and their costing without specific explanation.

The burden of costing the policy priorities has been passed on to the political parties. The approaches to costing have been most broadly discussed during meetings with the political parties. The parties acknowledged limited internal expertise in policy costing. LFDC advised them to use a summary reference material compiled from costing of different policy initiatives reviewed by the Cabinet of Ministers during the past two years, as well as using some very simple approaches of direct calculation (in case of pensions and social benefits) or basic cost change assumptions to arrive to the possible fiscal impact. LFDC encouraged the parties to think about the cost implications more in terms of budget allocation for a specific priority rather than a detailed and comprehensive cost assessment. It would become a challenge for the party to ensure achieving the objectives after the elections sticking to the amount of allocation according to the estimate. Only priority measures having significant cost impact on the government budget should be included in the survey.

LFDC encouraged the political parties to ask for methodological support, if facing challenges in costing particular policy measures. One week before the submission deadline has been allocated for this engagement. The condition of LFDC's support has been the publication of the methodology on LFDC's website for other political parties to feel treated equally. LFDC discouraged a party having the lead in the governing coalition before the elections from using the government administrative resources to help with the policy costing exercise. Such move would have most certainly resulted into complaints of other participants in the survey.

The economic conditions and baseline fiscal projections have been fixed equal for all participating parties in the MS Excel questionnaire. LFDC used government simulations in the

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[67] Political parties survey on fiscal discipline, available at: *http://fiscalcouncil.lv/political-parties-survey-on-fiscal-discipline*, accessed on 04/02/2019.

Latvia's Stability Programme for 2018-2021 as the baseline for the survey. Some political parties argued during the initial consultations that enabling economic policies would ensure better macroeconomic outcomes and thus more resources available in the budget. LFDC argued against such approach based on difficulties to compare the results at a later stage and to assess the realism of dramatically improved macroeconomic performance over just four years horizon of the political cycle.

The objective for LFDC was to ensure that the assessment of the responses of the political parties could come at the time of pre-election discussions. 7 August 2018 was set as the deadline for submission of responses, coinciding with the deadline for the list of candidates and short (4000-sign) programs submission to the Central Election Commission. The alignment with this date was aimed at coordinating with the internal decision making process in the political party outlining priorities measures to allow the assessment of their fiscal impact.

3.2. What response did LFDC receive to the invitation for the survey?

Out of 16 political parties competing in the national elections in 2018 nine engaged with LFDC on the survey. From these six provided the Excel questionnaire and three excused themselves from submitting it, while providing assurances that they will conduct a fiscally responsible policies. Out of six parties submitting the questionnaire one was substantially past the deadline and was not included in LFDC's summary assessment published before the elections. Meanwhile, we have added the responses of the sixth party in the overall assessment attached to this report to broaden the analysis.

LFDC had engaged most significant political parties, which ended up having secured the representation in the Parliament. We should note that LFDC actually made more effort to contact the political parties, which had indication from public opinion polls that they could secure representation in the forthcoming parliament. Less fortunately the party leading the governing coalition before the elections excused itself from submitting the costing of the policy priorities as well as the leading opposition party. The new political parties not yet represented in the previous parliament showed more enthusiasm to prove that they have some capacity to cost their policy initiatives and to balance the fiscal position.

According to the rules of the engagement LFDC published the responses to the survey to make these available for policy analysts, journalists, and broader public understanding the fiscal implications of the political party priority measures. The publication boosted the position of the participants in the pre-election debates compared to other political parties, which decided not to submit the survey. Meanwhile, LFDC produced a small summary of the responses as discussed in more detail below.

3.3. Producing a summary

During the stage of assessing the results of the survey LFDC first checked, if the responses appear to be free of gross errors. The realism of the costing appeared to fluctuate widely, while we felt the need for commending the political parties for the transparency joining the exercise before blaming them for inaccurate estimates. Only on occasions of sign errors for the fiscal impact LFDC contacted the political parties to introduce correction to their costing.

The summary was focusing on the presentation of the fiscal outcomes as the result of varying policy proposals and their costing owned by the six political parties. The fiscal impact of the policy proposals have been measured against baseline scenario as outlined in the Latvia's Stability Programme2018-2022. Our assessment has been the following:

- Three of the political parties agreed with the government fiscal objectives in the four year perspective and adhered to these in their policy proposals, two other parties thought it possible to ease the fiscal policies increasing deficits (by 0.5% and 1.3% of GDP annually), and one parties suggested fiscal tightening (by 0.6% of GDP annually) (Table 1 in a heatmap layout[68]).

Table 1. Budget balance heatmap. Changes against the baseline (first column), % of GDP, (+) balance improvements / (-) balance worsening

Period	Baseline	Jaunā konservatīvā partija	Nacionālā apvienība	No sirds Latvijai	Attīstībai/Par!	Progresīvie	Jaunā Vienotība
2019	-1.0	0.2	0.0	-1.4	0.3	0.1	-0.4
2020	-0.4	-0.3	0.0	-1.3	0.3	0.4	-0.6
2021	-0.4	-0.9	0.0	-1.3	-0.1	0.7	0.3
2022	-0.4	-1.0	0.0	-1.2	-0.3	1.0	0.7
Average 2019-2022	-0.5	-0.5	0.0	-1.3	0.0	0.6	0.0

- Implementing policy priorities of the participating political parties would have kept debt levels from 34% to 36.8% to GDP – close to the baseline scenario at 35.6%, except the case of one party, while another party suggested the reduction of debt stock by selling government assets – privatizing some public corporations;
- All political parties suggest measures increasing compared to the baseline scenario tax revenue to GDP ratio to the levels from 30.4% to 34,3% to GDP according to the projections of political parties;
- All political parties were suggesting funding increases for social protection, while no spending growth for environmental protection. Two parties mentioned nature protection measures on the revenue side.
- All parties suggested the creation of the contingency and statutory reserves in the budget and identified fiscal risks except a case of one party for the latter.

LFDC also used the manifestos of the political parties to summarize on their fiscal policy intentions. Only a few parties made explicit commitments in their 4000 sign programs to maintain fiscally responsible policies. The specific statements have been including prevention of increase in debt – on one occasion, increasing tax revenue collection to 35% of GDP level (from 31.4% in 2016), and a statement of maintaining responsible budgeting in the third out of programs of 16 political parties running in the elections.

3.4. How to assess the results of the survey?

Most components of the survey have worked well except that the exercise could not be regarded as a comprehensive costing of election manifestos. The MS Excel tool has been found as an easy way of guiding the survey participants to help with the plausibility assessment of the political priorities. The model also helped the participants to understand the impact of different policy initiatives on the fiscal balance and other key aggregates.

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[68] Political parties replies' summary (in English) available here: *http://fiscalcouncil.lv/files/uploaded/political_parties_survey_replies.xlsx*, access on 04/02/2019.

The political parties using LFDC's template could go through a simplified budget exercise to see, what to expect, when they operate in the Coalition or opposition. The exercise resulted into sharp increases of the deficit and debt, if insufficient compensatory measures are taken for policy priorities resulting into the expenditure growth or reduction in revenue. The budgeting experience prepares them for hard choices to be made, when the fiscal impact of new policy priorities require accommodation. The template has been found a good start for its further use as an education tool.

The fiscal responsibility exercise has helped the political parties and the pre-election debate to focus on the fiscal plausibility of the policy proposals, while the population in their majority continued to vote along the traditional political loyalty lines and based on their assessment of personalities on the political stage. The survey helped to shape the pre-election policy debate because journalists and debate leaders used the survey results in questioning and confronting the representatives of the political parties.

The lack of large scale policy priorities costed in the exercise explicitly indicated that the political parties implicitly agree with the baseline fiscal scenario. The political party heading the ruling coalition before the elections decided to withdraw from the exercise of completing LFDC's questionnaire. Logically, this would undermine the policies of the party during the past few years, when a number of reforms and future commitments have been made as reflected in the baseline scenario. The latter also explains higher activity level by the parties – newcomers to the national politics or political parties in the opposition.

The exercise has indicated that the political parties continue shaping their policies until very late in the pre-election process. This prevents them from detailing the policy proposals, most importantly – leaving out the feasibility assessment of the policy measures from the process.

Important policy priorities have been finally agreed upon in internal party processes only two months before the elections – just before the deadline of submitting the party programmes and candidate lists to the Central Electoral Commission. The ongoing debates have continued shaping the policy proposals thus resulting in significant shifts in the assessed costs. A political party which did well in LFDC's exercise experienced embarrassment later - during a post-election interaction with the Ministry of Finance, which indicated substantial fiscal impact deterioration resulting from changes in the policy proposals.

The political parties reduced somewhat explicit commitments in their political programmes to limit potential growth in budget costs. This on many occasions caused vague language suggesting improvements and reforms, while providing no specific measures, which would allow direct costing. There have been limited cases of political parties assuming specific numerically expressed obligations, which have been accompanied by a credible cost estimate.

The political parties struggled with the formulation of credible revenue measures. Some assumptions for additional revenues did not appear credible, while LFDC assessment excused itself from assessing the realism of the costing. Such deficiencies should be avoided, if such a survey could be repeated.

The matters of following the fiscal discipline requirements have been significant in the process of forming the new government coalition. The process of coming to a new government after the parliamentary elections in October have been most complicated in Latvia's history. It has taken 109 days to agree on a government coalition and composition that could have the support of the

majority of the Parliament. Meanwhile, the matters of following the fiscal discipline have been prominent in reaching the final deal with all coalition parties signing a specific fiscal discipline compact along with the Government Declaration and the Coalition Agreement.

4. Dutch experience from the 2017 election costings

4.1. 2017 – A better starting point than previous election costings

The starting position for the participating political parties in 2017 was not unfavourable, from an economic perspective. The expected average 1.7% annual growth in 2018-2021 is comparable with the average growth in previous editions. Nevertheless, from a historical perspective it is relatively low. Economic growth, in the past, was supported by a growing labour supply; but labour sources are slowly running dry, with an already strongly increased labour participation by women and an ageing labour force. Under the baseline, unemployment decreases in the medium term, but there is no increase in purchasing power for median households.

The 2017 elections are set against a less ominous budgetary backdrop than those of 2012. In the 2010 and 2012 editions budgetary choices had to be done in a situation with very small budgetary buffers. Fears of derailing debt levels, in both the short and the long term, and the desire to comply with the Stability and Growth Pact lead to a strong focus on spending cuts and increases in the financial burden. By 2017, however, the fiscal stance has completely altered. The Stability and Growth Pact requirements will be complied with3, and budgetary arrangements can be passed on —comfortably— to future generations without the national debt exploding. Moreover, there was even fiscal space. If one purely looks from the perspective of constant arrangements, the sustainable balance could be allowed to go down by 0.4% of GDP, whereas pursuing an EMU balance of 0% of GDP would provide room for an (ex-post) reduction of 0.9% and aiming for the EU medium-term objective for the structural balance (-0.5% of GDP) provides room for a reduction of 1.1%. In light of the medium-term projections, the Dutch Official Advisory Group on Budgetary Options advised, on balance, against a net increase in expenditure as well as against net spending cuts, mainly for reasons of stabilization and smooth governance (Studiegroep Begrotingsruimte, 2016). Although economists like to argue in favour of a stabilizing effect of the government budget, reality is often intractable. This is true not only in bad times (whether or not under perceived pressure), but certainly also in good times. Nothing seems more difficult than building up the proverbial nest egg.

4.2. Constants and changes compared to previous editions

The format of Charted Choices proves to have both constants and changes over time. To start with, over time the number of participating parties increased from 3 in 1986 to 11 in 2017, see figure 1 (right). A constant factor over time is that of the ambition to show how widely diverging ideals and opinions held by political parties would manifest themselves in actual practice. Think of question like 'What do parties really envisage?', 'What would the Netherlands look like if a certain party could implement is entire program?'. Another constant is the primary economic perspective. This does not mean that CPB considers politics only to be a matter of optimal programming, or that only the economy is important. On the contrary; there is so much more involved than mere money. The economic perspective does, of course, suit CPB's particular field of knowledge. Other institutes, such as PBL Netherlands Environmental Assessment Agency (PBL) and the Netherlands Institute for Social Research (SCP), shed their light on the election manifestos from their own fields of expertise. In 2017 there was, however, a certain degree of coordination with PBL — for the political parties that participated in both the CPB and the PBL assessments — in order to ensure consistency between measures and criteria in both publications. The last constant of the assessments of election manifestos is the voluntary

character of the exercise. After all, Charted Choices can only be successfully completed with the cooperation of the political parties involved.

The methodology used in the 2017 edition of Charted Choices is a combination of experiences from earlier editions and results from the evaluation of the previous Charted Choices 2013–2017, which was published in late 2013. The main themes of that evaluation were the sheer magnitude of the assessments, the need to create additional time for calculating the more unconventional proposals and, in general, for more discussion. Finally, a number of parties, understandably, requested that insight would be provided in the long-term effects not only on public finances and employment, but also on income development. With this in mind, the following adjustments were made:

- Participation in the assessment was reserved for political parties with at least one seat in the House of Representatives. As this edition shows, this adjustment did not mean that new parties could not participate. Because of the many breakaway factions in the House of Representatives, a total of 16 parties could have indicated their intention to participate in the assessment, on 14 October. Three parties make their debut in the assessment.
- The work was spread over a larger amount of time than for previous editions. For example, CPB, together with the Ministries of VWS and Finance, assessed the anonymised proposals on matters relating to health care, as submitted by 10 parties in the House of Representatives. Results were published in 2015, in a separate report on this subject: *Health care-related charted choices*. In addition, CPB, PBL and SCP also started the series on Promising Policy. In this series, a variety of policy options are described in a range of policy fields, all with their advantages and disadvantages on various dimensions. From the 1165 policy measures in Charted Choices, 505 originated from the policy options presented in the Promising Policies series.
- Finally, parties were explicitly invited to present their more complex proposals at an early stage, for confidential assessment. Together, these three changes aim to alleviate the work pressure during the assessment process itself, for both CPB and the political parties. This also created more time for including the more unconventional policy options that typically require more time to assess. And time is a scarce commodity in the very limited assessment period of Charted Choices.
- The scope of the assessment was narrowed. CPB discontinued reporting on so-called program effects in Charted Choices. PBL did continue its assessment in this respect, so that the loss was only limited to the effect of measures related to the housing market, education and innovation. These program effects, incidentally, can largely be reconstructed by using the measures described in the Promising Policy series.
- The minimum financial magnitude of individual measures was set at 100 million euros, which is 0.012% of GDP. Despite this limitation, a sizeable number of measures were assessed.
- More time was reserved for discussion during the assessment process, in this case also facilitated by a regular – hence, easier to plan – election moment.
- An indicator for income distribution was added: the Gini-coefficient. For certain measures, income effects are not visible until in the long term, due to gradual implementation. Under the former set-up, this effect would not show up in the assessment. The Gini-coefficient provides insight into the long-term income effects as a result of new policy.

4.3. Work method

After many early elections, the Dutch elections in March 2017 were on schedule. Unlike the previous editions, the 2017 election manifestos and the 2017 edition of Charted Choices were created under less time pressure. Over the period between the 8th and 9th Charted Choices, the CPB had regular contact with parties over the scope of the assessment, the methods and models, the time schedule, and the set-up of the publication. A constant factor was to aim for transparency and to prevent surprises. Following the start, in the summer of 2016, three First Communications were published on the CPB website on how specific policy proposals were going to be assessed (CPB, 2016).

By October 2016, all parties were asked to indicate whether they wanted to participate in the assessment. Participating parties submitted their proposed measures to the CPB on 7 November. To guarantee the confidentiality of the process, each party was allocated a personal contact at CPB. The assessment of measures by experts promotes equal treatment across parties. Parties were able to adjust their proposals at two moments in time. The first moment was during the ex-ante assessment of the measures and their ex-ante budgetary impact. The second was after the ex-post results were calculated. In addition, parties were provided with pre-release access to the information in their own party's chapter and the related description of their policy measures, so they could check the factually correct representation of their intentions.

CPB bases its assessment, conform Charted Choices' tradition, on the information as provided by the political parties themselves. It is not CPB's responsibility to double check consistency between that information and information expressed by the parties elsewhere, either written or oral. However, for the sake of transparency, the Dutch version of this publication also presents an elaborate overview of all measures included in the assessment. The possibilities of verification, in the past, have been utilized enthusiastically by others, which thus makes the process more disciplined.

Similar to previous editions, CPB checked each measure against a limited number of criteria before including it in the assessment. For example, measures are required to be implemented unilaterally by the government. In addition, measures require implementation during the coming Cabinet period, or have a logical implementation schedule. This ensures a focus on measures intended for the coming government period. The implementation schedule prevents long-term measures from not being implemented. Such measures, after all, cause the implementing party to suffer the political pain related to the proposed renewal, without them being able to harvest the long-term revenues. Conversely, this means that abandonment of the implementation schedule also removes the grounds for including the anticipated future revenues. Furthermore, a measure must be legally sustainable and technically feasible. The juridical review does not have the same weight as a formal judicial review, but the measure will have been judged on whether it would fall within constitutional and international legal frameworks. The implementation review also is one on main points.

CPB took the policy proposals as included in the Budgetary Memorandum 2017 as starting point for constructing the baseline. There are three exceptions, which all can be traced back to the criteria described above. For example, the multiannual vision diverges for local government authorities, because the Budgetary Memorandum assumes a continuation of reductions in block grants without any legal or governance basis. In addition, the series deviates for health insurance subsidies, because Cabinet repeatedly postponed the proposed spending cuts via the norm percentages to 2018. Finally, the proposed cost-sharing norm in old age pensions (AOW) was not incorporated in the assessment, as Cabinet again has repeatedly postponed implementation of this element into law until 2019.

In its assessment, CPB worked on the hypothesis that the party in question would have the majority in parliament and, therefore, would be in the position to fully implement the measures. Subsequently, the delayed impact of the policy measures on the economy was analysed. In doing so, CPB used models, as do many economists[17], which are an important tool for CPB's work. Models are a simplification of reality that provides insight into how measures work out in the economy. The mathematics within a model, furthermore, enforces transparency about assumptions and consistency. An empirically estimated model also provides indication about the magnitude of the effects. Similar to storylines, models are a way of explaining connections, and similar to experiments, models offer a way to simulate policy. For the degree to which the analyses provide a correct projection of reality, it is not surprising that parties adjust their proposals on the basis of the analyses. After all, models help to expose causality. Will policy be as effective as expected? Will there be side effects?

The CPB uses a set of models to calculate the economic effects of the package of policy measures. A proper indication requires focus, while at the same time not everything can be covered in one model. Therefore, in its Charted Choices, CPB uses a set of models instead of only one, each specified for a particular purpose. The macroeconomic model, Saffier II, takes central position in the assessment for the medium term, and ensures a consistent, mutually comparable analysis of the packages of measures, for variables such as economic growth, inflation, employment, unemployment and government finances (CPB, 2010b). Saffier II is fed by input from analyses from other sources on various areas; the MICSIM model provides data on labour supply; empirical research is the source for estimates in the fields of labour market policy and social security (Jongen et al, 2014). The MIMOSI model produces information about the wedge and replacement ratio (Koot et al, 2016); the housing market model provides estimations on the housing market (Dijk et al, 2016). MICSIM and earlier mentioned empirical work provides information about the effects on long-term structural employment. Purchasing power and Gini calculations are performed using MIMOSI. The sustainability analysis is conducted using the Gamma model (Draper and Armstrong, 2007)

The use of models in policy measure costings requires expertise and insight into how policy measures could best be translated into model input. Using models in calculations is more complicated than merely pushing a button. It requires expertise and insight into how policy measures could best be translated into model input. It also takes common sense to see whether the results are plausible. In theory, there is the risk of parties taking advantage of the weak spots in the tool set, by submitting measures for which costs will be underestimated or benefits overestimated. The expertise of the CPB with 30 years analysing election manifestos makes one very aware of this possibility. In cases of 'free' policy measures, usually the first question is a sceptical one: if it is free, then why has it not been implemented already?

4.4. The results in a nutshell

The results on public finances, the economy and the distribution of income in the medium and long term provide insight into the compromises that parties face when making their choices. Table 2 provides an overview. Packages of measures that lead to a reduction in EMU balance in the medium term generally provide economic stimulus in the medium term (see lines 1-7 in table 2). The choices with regard to reductions in the tax burden and increases in government expenditure have an impact on medium-term employment (see lines 8-10 in table 2). The various choices about the size and composition of expenditure and tax burden differ in their impact on purchasing power. This is also true for the effect on the purchasing power of specific groups, such as the employed, social benefit recipients and pensioners, but also for low incomes compared to high incomes (see lines 11- 17 in table 2). A reduction in income inequality in the long term, as a rule, also involves a reduction in employment in the long term, because incentives

for paying jobs become lower. An increase in structural employment not only has a positive impact on the sustainability of public finances, but often also involves an increase in income inequality in the long term (see lines 18-20 in table 2).

Table 2. Summarizing overview

	baseline	VVD	PvdA	SP	CDA	D66	CU	GL	SGP	DENK	VNL	VP
					Compared to baseline							
EMU-balance (2021, ex-ante, billion euro)	7	-8	-13	-12	-10	-9	-5	-12	-6	3	-8	-25
EMU-balance (2021, ex-ante, %GDP)		-1,0	-1,7	-1,5	-1,3	-1,2	-0,6	-1,5	-0,8	0,4	-1,1	-3,3
EMU-balance (2021, ex-post, %GDP	0,9	-0,7	-0,9	-0,3	-0,7	-0,8	-0,4	-0,2	-0,3	0,4	-0,8	-5,5
Public debt (2021, %GDP)	52,3	1,8	1,9	-0,8	1,5	0,8	0,2	-0,8	-0,5	-1,1	1,6	3,6
GDP-volume (2021, %, a)	1,7	0,3	0,3	0,2	0,3	0,2	0,1	0,2	0,2	0,1	0,4	0,4
Unemployment (2021, percentage-points)	5,5	-0,4	-1,1	-1,8	-1,0	-0,4	-0,3	-1,1	-0,8	-0,4	-0,4	-1,1
Consumer price index (2021, %, a)	1,3	0,0	0,3	0,0	0,2	0,3	0,3	0,6	0,4	0,1	-0,2	0,4
Employment market sector (2021, a)	0,5	0,3	0,1	-0,2	0,2	0,1	0,1	0,1	0,0	-0,1	0,2	0,2
Employment public sector (2021,a)	-0,1	0,0	1,8	0,5	0,9	0,9	-0,1	0,9	0,5	-0,5	0,0	-0,6
Employment health care (2021, a)	2,2	0,4	0,0	1,4	0,1	-0,3	-0,1	0,6	0,0	1,0	-0,2	0,3
Purchasing power (2021, a)												
The employed	0,0	1,2	1,1	2,0	0,7	0,8	1,0	1,3	1,0	0,2	2,2	4,8
Benefit recipients	-0,2	-1,2	1,0	3,2	0,1	0,2	0,5	1,3	-0,1	-0,1	0,0	1,1
Pensioners	-0,3	0,4	1,7	2,5	0,4	0,7	0,6	1,1	-0,2	0,0	0,3	0,5
All households	0,0	0,7	1,2	2,3	0,6	0,7	0,9	1,2	0,6	0,1	1,6	3,7
Purchasing power differences (2021, a)												
Lowest compared to highest incomes (b)	-0,3	-0,4	1,2	4,2	-0,7	0,1	-0,6	1,2	-0,9	0,5	-4,0	-1,0
Sustainability (%GDP)	0,4	-0,1	-1,1	-3,1	-0,8	-0,3	-0,2	-0,3	-0,3	-0,2	-1,0	-6,3
Structural employment (percentage-points)		3,5	0,1	-4,6	-0,3	0,7	-0,2	0,3	-1,4	0,0	0,9	-4,8
Effects on income distribution after 2021 (c)	2,9	2,1	-5,7	-14,4	0,4	-1,7	-1,1	-6,0	0,0	-0,5	12,6	-4,4

(a) Average % per year
(b) Lowest incomes: less than 175% gross minimum wage; highest incomes: over 500% gross minimum wage..
(c) On the basis of mutation in the Gini-coefficient. An increase means greater income inequality

Most parties opt for the ex-ante EMU balance to go down, compared to the baseline level. The macroeconomic effects of the policy packages were not taken into account here. The decline is the greatest under the plans by the Vrijzinnige Partij (VP), namely 25 billion euros (-3.3% GDP). The increase in tax burden, under this party, is smaller than the increase in public spending. The PvdA and SP both opt for a combination of increased expenditure, higher tax burden and lower natural gas production. Under GroenLinks (GL), the public tax burden remains unchanged, while expenditures are increased, and natural gas production is decreased. CDA, D66, ChristenUnie (CU) and SGP each increase expenditures and reduce the tax burden, with D66 and the CU also reducing the natural gas production. VVD and VNL opt for a reduction in tax burden that is greater than the spending cuts. Only under DENK will the EMU balance increase,

in 2021 (3 billion euros, 0.4% GDP). This party increases government revenues via increases in both the tax burden and natural gas production.

For the ex-post effects on the EMU balance, the macroeconomic impact also was taken into account. Additional expenditure and reduction in the tax burden both will stimulate the economy in the medium term. Increased consumption and public spending involve higher production levels and, mostly, higher employment levels and lower unemployment. The increases in wage income and consumption cause revenues from wage tax and VAT to increase and the decline in unemployment causes the expenditure on benefit payments to decrease. These effects, thus, reduce the initial decrease in (ex-ante) EMU balance, except under the VP. The conversion of taxed benefit payments into untaxed basic income results in lower tax revenues and therefore in a further decrease in the balance. The change in the ex-post EMU balance varies from a decrease of 5.5 % GDP for the VP, to an increase of 0.4% GDP for DENK. All parties, except the VP, achieve a balanced budget or a positive EMU balance.

The effects of the packages of policy measures on the public debt in % of GDP depend primarily on the effects on the EMU balance, but the effects on nominal GDP also play a role. These effects may counter each other; a package that stimulates the economy through additional spending and reduction in tax burden, leads to a decreasing EMU balance and increasing public debt, compared to the baseline level. The stimulus leads to a larger GDP volume and, in most cases, to higher GDP prices; this denominator effect could −despite the lower EMU balance − cause the debt ratio to drop, compared to the baseline level. In practice, this is the case for the SP, GL and SGP. For DENK, the debt ratio improves because of the increase in EMU balance. For the remaining parties, on balance, the debt ratio increases compared to the baseline, because the dominating direct effect of the reduced EMU balance. Furthermore, for a number of parties, there is a direct upward impact on the public debt due to injections of capital in an investment bank (PvdA, SP, CDA, D66, GL and DENK).

All packages of policy measures have a positive impact on average GDP growth, over the 2018 − 2021 period. Most parties, on balance, provide an impetus to spending. The smallest increase in GDP growth is under the CU and DENK (0.1% per year), the largest under VNL and the VP (0.4% per year). The larger growth in the economy generally involves an increase in employment, over the 2018−2021 period. The sectors in which this increase occurs vary. In the market sector, annual employment growth varies from 0.3% (VVD) to -0.2% (SP). Government employment increases the most under PvdA, due to more public jobs being created, and decreases the most under the VP, due to general spending cuts (personnel and equipment) at government authorities and departments. In health care, the effects of the packages vary from 1.4% per year (SP) to -0.3% (D66). The impact on unemployment is driven by employment developments in combination with the effect on labour supply. For the SP, the decrease in unemployment by 2021 is mostly due to the lower labour supply and increased employment in health care.

Median purchasing power increases for all parties in the period 2018 − 2021. The annual increases vary from 0.1% (DENK) to 3.7% due to the basic income provided by VP. For the remaining parties, differences vary between 0.6% and 2.3%. Many parties implement a reduction in the tax burden, and some limit co-payments in health insurance, with a related positive impact on median households. The macroeconomic impacts of the packages on wages and prices partly determine the impact on purchasing power. The related impact on real contract wages varies from a decline of 0.5% (VP) to an increase of 0.7% (SP). All party packages improve the purchasing power for the employed, compared to the baseline. This is not the case for benefit recipients; they will experience a decline compared to the baseline in the programs of VVD, SGP and DENK. Under most parties, particularly the VP, VVD and VNL, the employed profit more

than benefit recipients, from the proposed measures. Under GL both groups experience the same benefit. Only under the SP, the purchasing power of benefit recipients increases more than that of the employed; among other things, due to an increase in the minimum wage and related social benefit payments. Compared to the baseline level, the purchasing power of pensioners improves under all parties, except under the SGP. The largest increase is under SP and PvdA, because of higher pensioner credits and state pension payments.

The effects of the packages of policy measures on the long-term distribution of income (measured as change in the Gini coefficient, in percentages) and on the difference between the lowest and highest incomes over the 2018 − 2021 period differ between parties. For the SP, the decrease in mostly related to the implementation of a health-care premium that is related to income level and an increase in the domestic minimum wage. The packages of measures by GL and PvdA also show a decrease in income inequality. They propose to raise benefit payments and state pension payments, and to reduce the third tax bracket of the income tax. VNL's increase in income inequality is the result of the flat tax rate and a reduction in the social welfare benefit level as well as in various tax credits. Income inequality also becomes larger under measures in the VVD package, due to the lowering of tariffs in the second and third tax brackets and spending cuts in health-care and rent subsidies.

In addition, there are policy impacts on the income level in the long term. This concerns the costs to households related to environmental measures in the long term. The changes to the tax burden as mentioned above vary from an increase of 11.5 billion euros under GL, to a decrease of 2.5 billion euros under VNL.

The changes in structural employment[69] vary between parties. The structural employment impact varies from an upward effect of +3.5% for the VVD to a downward impact of -4.8 % for the VP and -4.6% for the SP. For the remaining parties the structural employment impact moves between -1.5% and +1%: upwards for VNL, D66, GL and PvdA, zero for DENK and downwards for SGP, CDA and the CU. The effects are driven by changes in social security, fiscal policy and state pension levels. The greatest change in social security occurs under the VP, because of the introduction of the basic income. On balance, this reduces the incentive for people to work in employment and lead s to a decrease in structural employment. On the other end of the spectrum, the VVD measures related to unemployment benefits (reducing the entitlement period, differentiation in premiums) and disability benefits (transitional period) lead to an increase in structural employment. Changes in tax system, with income tax based on household income, explain the decrease in structural employment under the SGP measures. VVD's reductions in the tax burden through labour tax credits and income-dependent combination of tax credits contribute to the largest increase in structural employment. Lowering the state pension entitlement age to 65, under the SP, explains most of the negative effect on structural employment. Moreover, some parties (VVD, D66, GL, SGP and DENK) offer people the possibility to (actuarially neutral) delay the commencement of their state pension payments, which leads to an increase in structural employment. The packages of policy measures of most parties, on balance, reduce the differences in costs between permanent and temporary staff members and between employees and the self - employed, via adjustments to fiscal policy and social security. The SP and the VP are the only two participating parties who include only a few measures in this area.

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[69] Structural employment refers to the number of hours worked, in the long term, when people will have adjusted their behaviour completely to the new policy situation (for most measures this is within 10 years).

All parties let the sustainability balance of public finances decrease.[70] A continuation of current policy would mean a positive sustainability balance of 0.4% of GDP. This equals the surplus that is available for reducing the tax burden, or to increase public spending, without affecting the continuity of the current arrangements. This amount is put to use by all parties, which means that the sustainability balance decreases, under all packages of measures. For five parties (VP, SP, PvdA, VNL and CDA) this results in a negative sustainability balance. The decrease is the greatest for the VP (6.3% GDP), due to the decrease in the EMU balance, over the 2018 − 2021 period, caused by the implementation of the basic income. For the SP, the decrease of 3.1% is the result of higher health care costs and lowering the state pension entitlement age to 65. This means that, at a certain time in the future, the tax burden will need to be increased or spending to be reduced. For the remaining parties, the decrease is smaller and results in a sustainability balance that is either equal to or larger than zero.

4.5. From Charted choices to the coalition agreement

The coalition agreement is a key decision moment on budgetary policy. As mentioned before, the Dutch political history is made up exclusively of coalition governments. Since at least two or three parties are involved, the run-up to the formation of a new government is crucial. The negotiations are usually quite lengthy with 2017 being the lengthiest (see Figure 2). The negotiations are lengthy since the agreement contains a detailed financial section on all the new government's expenditure and revenue measures, starting with the medium-term budget framework. On the basis of the new coalition agreement, the new yearly expenditure ceilings are set for the government's four-year term. The coalition agreement implements a trend-based budgetary policy. Since 1994 the trend based budgetary policy has been in place and has remained largely unchanged. Bos (2008) describes its key principles. In case the government or a coalition party wants a change in the Agreement, it needs to provide an alternative with the same budgetary impact.

Figure 2. Negotiations of coalition agreements can be lengthy
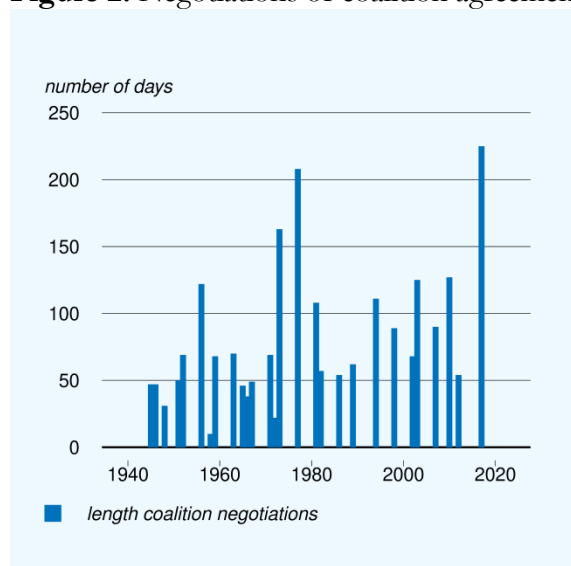
Charted Choices appears to be very useful for the voter and the coalition formation. Opinion polls show that two-thirds of the voters consider the CPB calculation of the election programs important and 20% of the respondents report that it also helps in the choice to vote for a certain political party. After the elections, two or more parties start a formation process, which begins by

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[70] The sustainability of public finances measures the difference between public revenue and spending, over a long-time horizon.

analysing of the Charted Choices measures of the forming parties. What are the similarities and where are the differences? About 75% of the measures in the Coalition Agreement Rutte-III had already been calculated in some form in the analysis of the election programs in 2017. Weighted according to budgetary impact, 82% of the measures were in the submitted party programs. In addition, Charted Choices measures from other parties are sometimes included in a coalition agreement. For Rutte-III, this involved 12% of the measures in the Coalition Agreement, in terms of the budgetary impact of the measures, it was 5%.

The package of policy measures in the coalition agreement will increase spending and alleviate the tax burden. By 2021, this will have an overall ex-ante negative effect on the general government budget balance of 14.5 billion euros, compared to the baseline scenario. In comparison with the baseline the package of measures, will result in an additional 0.2 percentage points growth in GDP, per year. This causes GDP to increase by 2.0% per year, bringing it well above the potential growth level. The reduction in the tax burden for households and the increase in employment will result in an average increase in consumption of 0.6 percentage points. Public spending will increase, particularly, on defence and education, while growing demand will lead to higher investments and cause companies to increase production levels. Higher prices will slow down export, causing a smaller increase than under the baseline scenario.

Total median household purchasing power will, as a consequence of the policy measures in the coalition agreement, increase by 0.7% per year, on average, compared to the baseline. In the long term it will lead to smaller income inequalities than under the baseline scenario. Compared to the baseline, the Gini coefficient will be 2.7% lower.

Last, the policy measures in the Coalition Agreement will reduce the sustainability of public finances by 0.6% of GDP. The resulting sustainability balance will be -0.4% of GDP. This implies that, at a certain time in the future, spending cuts or revenue increases will be required. The sustainability is decreasing because expenditure in the long term (in a few decades) will become higher than incoming revenues. The package of measures will increase long-term spending by 0.5% of GDP. This particularly concerns the increases in spending in public administration, defence, education and social security.

5. Some lessons

5.1. Latvia: Next steps

The engagement of the political parties in formulating their priorities should occur much earlier in the pre-election process to allow better quality of the programmatic plans and the related estimates of the fiscal impact. This trend would be very much against the current practice of keeping the policy initiative confidential until the deadline of communicating these to the Central Electoral Commission two months before the day of elections. Political parties should be encouraged to improve the quality and substantiation of their pre-election arguments rather than coming up with catchy slogans and commitments that would not be met after the elections.

LFDC should seek more active involvement of the political parties in the survey. The responses to the previous survey have been representative by the coverage of the political parties elected to the parliament from the new. LFDC might make a stronger case for the opposition political parties and the parties not represented in the Parliament to demonstrate their capacity to balance their priorities with fiscal feasibility. The parties represented in the Coalition should be encouraged to develop policy scenarios, which could represent opinions different from the restraints of the coalition politics.

LFDC would consult with the political parties regarding the repeating of the exercise for the next election cycle. The consultations would particularly focus on the evaluation of the previous exercise, the methodology of the survey, the selection of specific policy initiatives important for the costing, technical support to political parties having less resources at their disposal, and appropriate resources for the exercise.

5.2. Lessons from Charted Choices

Both from earlier and the latest Charted Choices the following lessons come to the fore. First, facts speak louder than opinions. During elections times a division between those producing the facts and analyses, and those who debate (and later on decide) on policy is a good thing. It enhances a level-headed debate on policy goals and options. However, keep in mind that this is not the same as saying that producing forecast and analyses is straightforward and value free per se, but the temptation to doctor the figures is taken out of the equation.

Second, Rome wasn't built in a day. The CPB was established in 1945. It took time to establish a reputation as a dependable source of economic forecast and analysis. The exact same is true for establishing a reputation as the widely accepted assessor of election manifestos. The present portfolio on analysing election manifestos started in 1986 with three political parties and expanded gradually towards the majority of parties present in the House of Representatives. Start modestly and build on your successes.

Third, bottom up is best. The strive towards evidence-based policy analysed will work best if political parties are requesting the local independent IFI to analyse their manifesto. When all political parties have equal access to the local IFI, the strive to participate will become stronger. In case the coalition in place argues for an analysis of election manifestos during the future elections, there is a risk that other parties perceive the analysis as policing on behalf of the coalition/government in place.

Fourth, feeding political parties with policy options (and the macro-economic consequences) can be achieved if started well ahead in time. The Promising Policy series illustrates this. Almost half of all analysed policy measures in Charted Choices 2017 originate from the Promising Policy series.

References

Beetsma, R., M. Giuliodori, M. Walschot and P. Wierts, 2013, Fifty years of fiscal planning and implementation in the Netherlands, *European Journal of Political Economy,* 31: 119-138.

Bolhuis, W., 2018, Van woord tot akkoord, Een analyse van de partijkeuzes in CPB-doorrekeningen van verkiezingsprogramma's en regeerakkoorden, 1986-2017, PhD thesis, Leiden University.

Bos, F., 2008, The Dutch fiscal framework: history, current practice and the rle of the CPB, *OECD Journal on Budgeting,* 8(1): 7-48

Bos, F and C.N. Teulings, 2012, The world's oldest fiscal watchdog: CPB's analysis foster consensus on economic policy, CPB Discussion Paper 207.

CPB, 1994, Economische gevolgen van het Regeerakkoord. Macro Economische Verkenning, 115-146.

CPB, 1998, Economische gevolgen van het regeerakkoord 1998. CPB Werkdocument 105.

CPB, 2002, Economische gevolgen van het Strategisch Akkoord 2003 - 2006. CPB Document 22.

CPB, 2007, Indicatie van effecten Financieel kader 2008-2011. CPB Notitie.

CPB, 2010a, Analyse economische effecten financieel kader. CPB Notitie 33.

CPB, 2010b, Saffier II, CPB Document 217.

CPB, 2012, Analyse economische effecten financieel kader Regeerakkoord. CPB Notitie.

CPB, 2017, Analyse economische en budgettaire effecten van de financiéle bijlage van het Regeerakkoord. CPB Notitie 4 oktober 2017, 1-41.

Dijk, M. van, S. Groot and J. Mohlmann, 2016, CPB woningmarktmodel, CPB Achtergronddocument 23 februari 2016.

Draper, D.A.G. and A.M. Armstrong, 2007, GAMMA, a simulation model for ageing, pensions and public finances, CPB Document 147.

Jongen, E., H.W. de Boer and P. Dekker, 2014, MICSIM – a behavioural microsimulation model for the analysis of tax-reform in the Netherlands, CPB Achtergronddocument, 27 november 2014

Koning, J. de, 1986, Kabinetsformatie 1986; Brief van de Informateur. Tweede Kamer, vergaderjaar 1985-1986, 19 555, nr 3, 40-48.

Koot, P, M. Vlekke, E. Berkhout and R. Euwals, 2016, MIMOSI: Microsimulatiemodel voor belastingen, sociale zekerheid, loonkosten en koopkracht, CPB Achtergronddocument 30 maart 2016.

Lubbers, R. F. M., 1989, Kabinetscrisis en formatie 1989; Brief van de Informateur. Tweede Kamer, vergaderjaar 1989-1990, 21 132, nr 8.

Platais J., Kalsone D, 2013, Political parties fiscal responsibility. Report on political parties' survey on fiscal discipline issues in 2018, Research paper 03/2018. http://fiscalcouncil.lv/files/uploaded/20180817_political_parties_fiscal_responsibility.pdf

Studiegroep Begrotingsruimte, 2016, Van saldosturing naar stabilisatie, Ministerie van Financiën.

Suyker, W., 2015, CPB's role in the Dutch medium-term budgetary framework. Presentation 7th Annual meeting of OECD Parliamentary budget officials & independent fiscal institutions, Vienna.

The Cabinet of Ministers of the Republic of Latvia 13th Saeima's fractions Fiscal Discipline Agreement, 23 January 2019. http://fiscalcouncil.lv/files/uploaded/20190123_Government_Fiscal_discipline_agreement.pdf

Trapp, L. von and S. Nicol, 2017, Designing Effective Independent Fiscal Institutions, OECD.

5 The Swedish fiscal framework – the most successful one in the EU?

## The first twenty years and beyond[71]

Fredrik N G Andersson, Department of Economics, Lund University

Lars Jonung, Department of Economics and Knut Wicksell Centre for Financial Studies, Lund University

1. Introduction

Sweden adopted a new fiscal framework in the late 1990s following a sharp increase in government debt in the early 1990s. Since the introduction of this framework, the public debt-to-GDP ratio has fallen from 73 percent in 1995 to 41 percent in 2017. As demonstrated by Figure 1, which plots the Maastricht debt for Sweden, the euro area, France and Germany, Swedish debt has gone from being one of the highest in Europe to one of the lowest. In the euro area, the debt ratio has increased to 87 percent, in France to almost 100 percent, in Germany the debt ratio is 64 percent, almost the same level as in 1995.

Figure 1. The Maastricht debt-to-GDP ratio for Sweden, the euro area, Germany and France, 1995-2017.
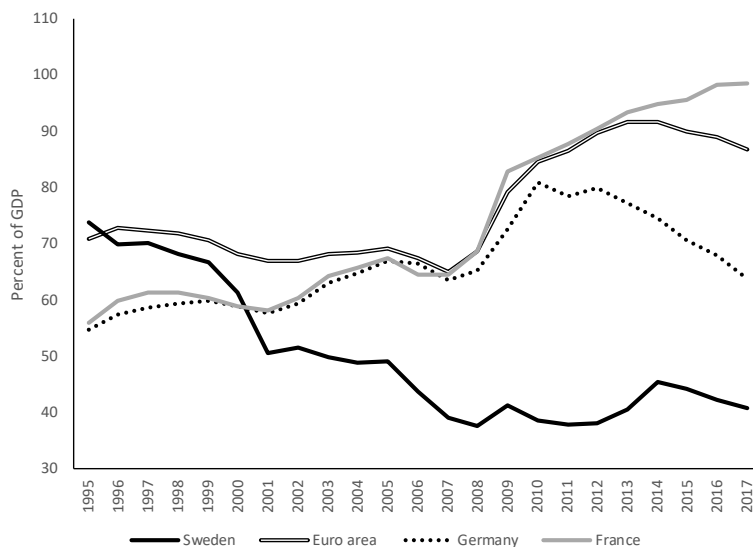
Data source: Eurostat and the Swedish National Debt Office.

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[71] Prepared for the *European Fiscal Board* conference on 28 February 2019 in Brussels. We have benefitted from constructive comments from Michael Bergman, Niklas Frank, Thomas Hagberg, Jens Henriksson, Göran Hjelm, Jan in't Veld, Thomas G. Pettersson, Werner Röger, Joakim Sonnegård and discussants at the workshop organized by the European Fiscal Board where a first draft of this paper was presented.

In fact, the Swedish framework has been so successful that its long-run sustainability can be put in question. We will argue that the debt ratio may become *too low* towards the end of the 2020s. For this reason, we recommend adjusting the fiscal framework to make it sustainable for the long run. Specifically, we propose that the government shifts attention from reducing the debt ratio through a surplus target to maintaining a stable debt-to-GDP ratio, in the process abandoning the surplus target.

The report consists of four parts. First, we give a brief account of the development of public debt in Sweden from 1750 to 2017. We show that Sweden has a long history of low and sustainable debt until the break-up of the Bretton Woods system in the early 1970s. From then on, fiscal policy turned unsustainable during periods of economic crises. The experience of this very recent period is the key factor that led to the creation of the current fiscal framework.

In the second part, we describe how the fiscal framework has evolved over time. Presently it consists for four components: i) an expenditure ceiling set in advance to keep expenditures under control, ii) a surplus target to ensure that the budget, including those of the local authorities, is balanced over the business cycle and debt is reduced, iii) a fiscal policy council to monitor and ensure that the government follows the fiscal rules, and iv) a debt anchor to ensure that the debt level does not grow too rapidly during major recessions when the framework allows the government to borrow.

We also discuss why the framework has been so successful. In our view, there are four main reasons. First, because leading politicians have had personal memory from the 1990s when public finances rapidly deteriorated, and from the subsequent period when fiscal discipline was restored through unpopular austerity measures. Second, the framework has been allowed to evolve over time. This flexibility has ensured that public support for the framework has remained high. Third, financial markets have responded positively to the reduction in debt by reducing long-term government borrowing costs through lower interest rates. As interest rates fell, politicians were rewarded for fiscal discipline. The Swedish central bank did not bail out the government in the 1990s when debt was high and rising. Instead, interest rates were allowed to rise sharply. Fourth, the framework was designed domestically as an outcome of an internal political process, thus giving rise to public support behind the framework. It was not forced upon Sweden by outside forces. All major political parties concluded that sustainable public finances were essential for the well-being of the Swedish economy.

In the third part of the report, we discuss potential reforms of the fiscal framework. We argue that the pension system should be excluded from the framework, as it is a fully self-funded and self-regulated system. We also argue that that the surplus target is becoming obsolete once the debt ratio has fallen into a "safe" range, precluding further decline. The debt ratio is already low and reducing it much further should not be a policy goal per se as would be the case if the surplus target was maintained. Instead, greater emphasis should be given to the debt anchor, i.e. to debt stabilization. Once the debt ratio becomes low, maintaining a low ratio over time should be the primary goal of fiscal policy – and thus of the fiscal framework. Here we argue that the present debt anchor of 35 percent is set too high. It should be lowered to ensure that Sweden can meet a major economic crisis in the future without running into fiscal difficulties. Major crises are costly fiscally. The government has an important role in supporting households by smoothing their consumption during times of high unemployment and declining incomes. In short, we propose an insurance approach in the design of the fiscal framework when we settle for our specific target for the debt-to-GDP ratio.

Having a low national debt *before* the crisis is pre-requisite for a successful active fiscal policy response during the crisis. Entering the crisis with a low public debt is also important to foster political stability. A low debt level before the crisis reduces the likelihood that the government has to implement major austerity measures during or immediately after the crisis with potentially devastating economic and political effects. As households are severely stressed financially by any deep crisis, adding additional burdens through cuts in public spending is likely to reduce trust in the political system and to increase support for populist movements.

To estimate the proper fiscal space, we adopt a two-stage approach. First, we show that a public debt ratio exceeding 70 to 75 percent of GDP in Sweden is associated with rapidly increasing borrowing costs. Based on estimates of the fiscal costs of recent major international (financial) crises, we find that the average fiscal cost of a major crisis is between 30 and 40 percent of GDP. Consequently, we conclude that the debt ratio should be no higher than 20 to 30 percent *before* the next crisis. Presently, the debt anchor is set to 35 percent +/- 5 percentage points. We recommend that it should be reduced to 25 percent +/- 5 percentage points. Ideally, the debt ratio should be at the lower end of the allowed corridor during booms to allow debt to rise during recessions, allowing for the workings of the automatic stabilizers and limited discretionary expansionary fiscal measures.

Our proposed reforms of the fiscal framework have two major advantages. First, it gives the government fiscal flexibility. In normal times, debt is allowed to vary by 10 percentage points, in a major crisis by more. Second, it is easy to monitor. The Fiscal Policy Council can in a very straightforward way evaluate the sustainability of the public finances without being directly involved in the policy process. The present surplus target is defined as a surplus over the business cycle, which is a theoretical concept more difficult to measure and monitor.

In the final section, we discuss the relevance of the Swedish experience for the fiscal governance of the EU. We are well aware that prevailing Swedish views on debt and fiscal prudence are different from those of many EU member states. Still, this should not prevent us from considering how other countries may draw lessons from the Swedish fiscal record.

2. Swedish public debt from 1750 to 2017

Swedish fiscal history shares many similarities with that of other European countries.[72] Before the industrialization process, and before the creation of the modern welfare state, the public debt level was relatively low and stable. It increased during wartime and decreased during peacetime. Economic conditions had in general no effect on public debt. The Swedish debt-to-GDP ratio 1750-2017 is displayed in Figure 2. The solid black line represents central government debt (*Riksgäldsskulden*) and the dotted black line shows the Maastricht debt. Data on the Maastricht debt is only available from 1980 and onwards. Most of the time, the two debt ratios are similar, except for the latter part of the 2010s when local governments rapidly increased their debt while the central government continued to reduce its debt ratio.

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[72] See Eichengreen et al (2019) on the cross-country history of debt accumulation in a secular perspective.

Figure 2. Swedish central government debt (*Riksgäldsskulden*) in relation to GDP 1750-2017 (solid black line) and Swedish Maastricht debt in relation to GDP 1980-2017 (dotted black line).
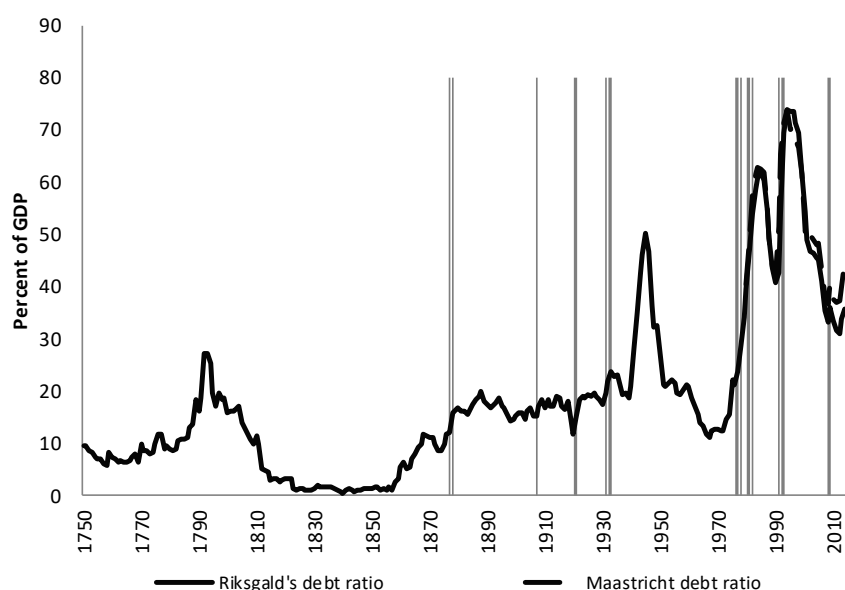
Data source: Swedish National Debt Office, Statistics Sweden, Fregert och Gustavsson (2013), and Thompson Reuters Financial Datastream.

In pre-industrial times, the Swedish government maintained a debt of roughly 10 percent of GDP from 1750 until the war against Russia in 1788-90 when the debt level increased to 30 percent of GDP. The debt ratio was then reduced to almost zero in the 1820s, a level that was maintained until the start of industrialization and public investments in railroads in the 1850s. During a 25-year period, the debt level increased to 20 percent of a GDP when the government invested heavily in infrastructure. For roughly a century, from the 1880s until 1970, the debt ratio fluctuated between 15 and 25 percent of GDP except during the Second World War when it reached 50 percent. The war effect was brief, the debt ratio was back to 20 percent already by 1950.

The fact that debt never exceeded 50 percent of GDP from 1750 to 1970 is partly explained by the long period of peace enjoyed by Sweden. The last war Sweden fought was in 1814 against Norway. Sweden stayed out of active combat during both the First and the Second World War. Although both world wars contributed to an increase in government borrowing, the rise was limited. During the First World War, high inflation was key to hold down the debt-to- GDP level. Nominal debt increased by 155 percent between 1913 and 1918, but high inflation (47 percent in 1918) kept the increase in relation to GDP to almost zero.

The fiscal history after 1970 is a more volatile one following the demise of the Bretton Woods system and the fiscal discipline inferred by the implicit gold standard. From a low of 12.5 percent debt in 1970, it reached 62 percent in 1985 before briefly falling back to 40 percent by 1990, at the peak of the financial boom that followed the financial de-regulation that started in 1985. The ensuing financial crisis increased debt to 74 percent of GDP by 1995 (Figure 2). Three important factors contributed to the increase in debt: declining growth rates following the first oil price shock (OPEC I), the acceptance of a Keynesian view of the role of fiscal policy to ensure full employment, and expanding international financial markets.[73]

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[73] See Persson (1996) for the development of Swedish debt from the 1970s to the first part of the 1990s.

As in Western Europe, real GDP growth rates were high in Sweden following the Second World War, peaking in the mid-1960s and then declining thereafter although they were still relatively high (Andersson, 2017). With OPEC I, the post-World War II growth phase clearly ended. Swedish stabilization policy was strongly influenced by the Keynesian views dominating policy debate at the time (Jonung, 1999). Thus, the belief in the powers of discretionary fiscal policy in stabilizing the economy through economic fine-tuning was widespread among academics and politicians. The response to the decline in growth due to OPEC I was initially an expansionary fiscal program to prop up domestic demand and employment, which continued through OPEC II in 1979 and into the early 1980s. Consequently, government debt rose rapidly.

The acceptance of the Keynesian view was part of the expansion of the welfare state in Sweden in the post-World War II period. Public expenditures increased not just for health, education and infrastructure but also for social spending and transfers. More and more of the life-cycle consumption smoothing of households over the life cycle was performed by the Swedish state through a generous welfare state funded through high taxation. As wages stagnated and unemployment rose after OPEC I and OPEC II, government expenses increased to counter the decline in income. A reduction in the financial responsibilities of the state was deemed politically impossible.

Financial repression during the Bretton Woods period, including extensive controls on cross-border capital flows, restricted access to credit to largely domestic savings within Sweden. Being less developed, international capital markets did not serve as a source of finance in the 1950s and 1960s. During the 1970s, following the first oil price shock (OPEC I), international capital markets began to expand, partially due to the recycling of the rapidly growing revenues of the oil-exporting countries.

Because of the negative chocks to the Swedish economy of OPEC I and OPEC II, large budget deficits emerged. The Swedish government chose to finance these deficits without draining the domestic credit market of funds by borrowing internationally. In 1974, 0.1 percent of the national debt consisted of external borrowing. By 1983, the share had increased to about 21 percent (Riksbank, 1984). The adoption of the Keynesian approach to stabilization policy-making, demands through a large welfare state coupled with a reduction in economic growth, and a new source of funding outside Sweden clearly made its mark on public finances and public debt.[74]

A minor consolidation of the public finances took place in the mid-1980s. However, most of the decline in the debt ratio occurred due to an economic boom fueled by cheap credit following the deregulation of the financial markets in November 1985. The resulting boom, which turned into a large financial crisis in the early1990s, partly masked the weak underlying standing of the public finances.[75] While public debt fell to 40 percent in 1990, it rapidly shot up to 74 percent in 1995 in the wake of the financial crisis.

When the Swedish economy started to recover after the financial crisis of 1991-93, rapid fiscal consolidation took place between 1994 and 1999 when the budget was balanced. Government debt continued to fall quickly until the international financial crisis of 2008-09. The debt increased briefly during the crisis before it began to fall again. Central government debt fell, while the local governments benefitted from low interest rates that followed the crisis to fund investments. By 2017, the central government debt (*Riksgäldsskulden*) was 29 percent of GDP

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[74] See Jonung (1999) on the shifting stabilization policy models used by Swedish governments 1970-99.
[75] See the analysis of boom-bust induced cycles in public finance in Sweden in chapter 6 in Jonung et al (2009).

compared to 74 percent in 1995 and 33 percent in 2008. The Maastricht debt was 41 percent compared to 74 percent in 1995 and 38 percent in 2008.

The fiscal consolidation in the late 1990s was part of a major overhaul of economic policy-making in Sweden. The framework for monetary and fiscal policy-making was changed in a most fundamental way. The fixed exchange rate of the krona was abolished during the financial crisis in November 1992 and replaced by a flexible exchange rate. Inflation targeting was adopted in early 1993 with a numerical target set at 2 per cent consumer price inflation to be valid from 1995. The Riksbank was made independent in 1999. The role of fiscal policy in stabilizing the economy was reduced to that of the workings of automatic stabilizers while the main responsibility for macroeconomic fine-tuning was given to the Riksbank. Several domestic markets were liberalized and tax rates reduced, especially on capital. Combined with a depreciation of the exchange rate of around 25 percent in 1992, when the Riksbank abandoned the fixed exchange rate, growth picked up, which contributed positively to the fiscal consolidation. The reduction in domestic demand due to the fiscal consolidation was more than fully compensated by higher external demand for Swedish exports through the depreciation of the Swedish krona. The fiscal consolidation was also successful partly because it coincided with a break with the perceived failed policies of the past.[76] The fiscal policy framework that set clear rules for sustainable finances was one of several components of the package of new economic policies and new institutional set-ups for policy-making. Since the new consensus on economic policy, so far few have argued for a return to the past.

3. The evolution of the Swedish fiscal framework

The Swedish fiscal framework has evolved over time starting in the mid-1990s, with the most recent adjustments agreed to by the political parties in 2016. Although the framework has changed over time, the goals have remained the same: to keep public spending under control, and to ensure that the national debt ratio declines over time. Following the reforms in 2016, which came into effect in 2019, the fiscal framework consists of four major components: i) an expenditure ceiling, ii) a surplus target, iii) a fiscal policy council, and iv) a debt anchor. The surplus target is set at 1/3 percent of GDP over the business cycle for the general government (central and local government, and the public pension system). The debt anchor, the latest addition to the framework emerging from the 2016 reform, is set at 35 percent of GDP +/- 5 percentage points.

3.1 The evolving framework

When the budget deficit in the early 1990s reached as high as 15 percent of GDP in 1993, the unsustainability of the public finances was apparent. Because public finances had been on an unsustainable track for almost 20 years, a review of the budget process was initiated.[77] A report from the Ministry of Finance in 1992 was a first step, inspired by a study by Jürgen von Hagen (1992), arguing that the power of the executive was weak compared to that of the legislature in the Swedish system. The Riksdag (parliament) could easily add on expenditures beyond what was requested by the government. A string of more or less weak minority governments and a short three-year election period gave strong incentives for rising government spending without any restraining control on overall spending.[78]

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[76] Andersson (2016) shows that major economic crises in general cause a change in policy across developed countries.

[77] The rise of the Swedish fiscal framework is described in detail in Calmfors (2013) and Jonung (2015, 2018).

[78] An extension of the terms of office from three to four years was introduced in 1994 as a response to the financial crisis of the early 1990s.

To maintain control over government expenditures, the budget process was reorganized as a top-down procedure. First, the Riksdag votes on the overall spending volume for 27 expenditure areas before spending within each area is allocated. Spending beyond the amount allocated to each spending area is not possible. The Riksdag can no longer add on expenditures once the spending levels are decided upon as it did in the past.

Second, to control the spending level for the medium term, the Riksdag votes on expenditure ceilings for total government spending less interest payments on government debt. These ceilings are set three years in advance. The Riksdag can change these ceilings. However, it has refrained from doing so with the exception for "technical adjustments", or for the election of a new government with a new economic agenda. Thus, a new government is not bound by the expenditure ceilings set by the previous government.

The expenditure ceiling has two main purposes. First, it forces the government and the Riksdag to prioritize among expenditures. An increase in one spending area is weighted against a reduction in another area. Second, it prevents the temptation to add permanent expenditures to the budget due to a temporary increase in revenues during e.g. an economic boom. The reformed budget process and the expenditure ceilings tightened the government's grip on spending. The expenditure ceiling has turned into a key policy instrument for the Ministry of Finance to control the spending of other departments.

The next step in the creation of the fiscal framework was the introduction of a *surplus target* announced in 1997 that gradually came into effect until 2001. The target was set at 2 percent of GDP over the business cycle and covered general government balance, i.e. central government, local government and the pension system. Part of the savings in the pensions system was later defined as private savings rather than government savings. The surplus target was reduced from 2 to 1 percent in 2007 as a technical adjustment with no overall impact on government policy.

The surplus target was introduced to reduce the government debt ratio, and in this way to prepare the public finances for the strain of an older population. In 2016, the surplus target was reduced to 1/3 of a percent of GDP over the business cycle. The main reason for this step was that the debt ratio had fallen to a relatively low level and that the Swedish population was growing older.

A *balanced budget requirement for local governments* was enacted in 2000 to prevent local governments from undermining fiscal sustainability. Local governments are required to balance their budgets every year. They can borrow to invest as long as their yearly revenues are sufficient to cover their running expenditures and the cost of servicing and repaying their loans.

An important part of the fiscal framework was put in place in 2007 by the establishment of a *Fiscal Policy Council* to monitor the government's adherence to the rules of the fiscal framework. The council was the brain-child of Anders Borg, the Minister of Finance at that time in a center-right government. It was initially met with political resistance from the opposition parties on the left. However, by now both sides of the political spectrum have come to accept the council.[79]

The Swedish council is an agency under the Ministry of Finance. Its budget is proposed by the Government and decided by parliament as a separate line in the annual national budget. The mandate of the Fiscal Policy Council is set out in a remit framed by the Government. The present one from 2011 with minor modifications from the beginning of 2017 is short, about one

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[79] See Jonung (2018) on the establishment of the fiscal policy council in 2007. Wyplosz (2002) contributed early to the arguments for a fiscal council in Sweden.

page long, stating that the main task of the Council is *to review and evaluate the extent to which the fiscal and economic policy objectives proposed by the Government and decided by the Riksdag are being achieved, and thus to contribute to more transparency and clarity about the aims and effectiveness of economic policy.*

The main tool of the Council for communicating its views and analysis is the annual report published in the spring. Soon after its publication, the annual report is presented at an open hearing before the Committee on Finance of the *Riksdag* (*finansutskottet*) where the Minister of Finance takes part as well. The report is then taken into consideration in the Committee's evaluation of the economic policies of the government. The government responds in the Budget Bill to the report of the Council, usually in September the same year.

Although the Council has no formal powers, it is a force to reckon with in public debate and policy-making. Sweden has a long history of open debate on economic issues and the economics profession has a relatively strong standing in public opinion. Critique from the Council has an impact on public opinion and thus it indirectly affects the government.

The fourth and latest building stone of the fiscal framework is the *debt anchor* introduced in the 2016 review. Coming into effect in 2019, the debt anchor stipulates that the Maastricht debt should be 35 percent of GDP +/- 5 percentage points. A debt anchor is unnecessary given the surplus target as debt would fall as long as the government runs a surplus. However, the surplus target is set as an average over the business cycle. In addition, there is no memory in the target in the sense that the government does not have to compensate in the future for failure to meet the target in the past. It does not have to run larger surpluses in the future just because the surpluses were too small in the past. A severe recession can thus cause government debt to increase. Consequently, a government that fails to adhere to the surplus target can drive debt higher. In contrast, the debt anchor ensures that debt is kept low.

The fiscal framework contains clear rules for the level of expenditures, the budget balance, government debt and supervision. However, the framework is also flexible. A new government can change the expenditure ceilings. The government can ignore both the surplus target and the debt anchor given that the Riksdag is willing to adopt the government's economic policy agenda. To further strengthen the framework, the revised budget law following the 2016 review stipulates that the government is forced to explain in public if its policies are in conflict with the surplus target and/or the debt anchor, and to present a plan for how the public finances are to be brought back in line with the rules of the framework. As long as public support for the fiscal framework remains high, these provisions are likely to induce governments to stick to the rules.

3.2. Lessons from the fiscal framework

No fiscal framework is perfect or "optimal" in its execution, not every budget since the late 1990s has been as fiscally responsible as it could have been. However, Swedish public finances have been on a sustainable path for a long time. The budget has on average been balanced with a small surplus since 2001 of 0.5 percent of GDP. No budget deficit has been higher than 1.6 percent of GDP in this period. As a result, the debt ratio has fallen. Central government debt is presently the lowest since 1978.

On the negative side, we note a growing volume of local government debt. As the borrowing costs have approached zero, local government debt has increased.[80] Higher interest rate costs may put the sustainability of local finances into question. Nevertheless, the framework has successfully reduced the Swedish debt ratio to one of the lowest in Europe. Politicians have

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[80] The average interest rate in 2017 was 0.57 percent (*Kommuninvest*, 2017).

followed the rules for more than 20 years and the present framework was agreed to by seven out of the eight political parties represented in the parliament. The exception was the Sweden Democrats, who objected to changing the rules and wished to maintain the old rules.

Why has the framework been such a success? There are several possible explanations, mutually enforcing each other. First, the framework has emerged through a domestic process. It was not imposed by demands or requirements from external authorities. Most likely, reforms created by internal forces are more successful compared to reforms imposed from external sources. They face less political resistance, they are credible, and they suit the country's circumstances better.[81] Politicians stick to the rules because they have designed the rules.

Second, the severity of the financial crisis in the early 1990s and the policy measures needed to stabilize the fiscal outlook have remained fresh in the memory of the public and of politicians in power. Few wish to revert to the fiscal deficits of the past. As the memory of the crisis of the 1990s fades, public support for the fiscal framework may also diminish. So far, leading members of the present government as well as of past governments have personal memories from the fiscal woes either during the crisis (1991-94) or during the fiscal consolidation period (1995-99). Table 1 shows the career position during the crisis and the consolidation period for all prime ministers and ministers of finance that have served since 2000 (i.e. after the adoption of the fiscal framework). In all governments, the prime minister, the minister of finance, or both, have private experience from the crisis and the consolidation process. Some were in government at the time as leading ministers, other served as members of parliament and some worked for the prime ministers serving at the time.

The government's reluctance to spend in time of low economic activity was criticized by the Fiscal Policy Council in 2009, 2010 and 2012. The Council advised the government to spend and borrow *more* than it did, thus proposing a more expansionary fiscal policy than the actual policy adopted by the government. In fact, the Minister of Finance criticized the Council for being too expansionary, warning that it might jeopardize fiscal sustainability in the long run.[82]

Table 1. Career positions of prime ministers and ministers of finance from 2000 to 2018 during the financial crisis of 1991-94, and the fiscal consolidation period 1995-99 in Sweden.

	Crisis phase 1991-94	Consolidation of public finances 1995-99
Prime ministers		
Göran Persson (1996-2006)	Opposition, shadow finance minister (1993-94).	Minister of finance, (1994-96). Prime minister (1996-2006)
Fredrik Reinfeldt (2006-14)	Member of parliament for ruling Moderate party.	Member of parliament for the opposition. Member of the Finance Committee.
Stefan Löfven (2014-)	Board member Metall (labour union).	Board member Metall (labour union). International secretary Metall.
Minister of finance		
Bosse Ringholm (1999-2004)	Chairman Country Council Executive Committee (1994-97)	Chairman National Labour Board (1997-99) Minister of finance (1999-2004)

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[81] Manasse and Katsikas (2018) argue that domestically driven reforms in Southern Europe were more successful compared to externally imposed reforms. Andersson (2016) reaches a similar conclusion. Domestic reforms are more long lasting compared to reforms imposed by external organizations.

[82] It is tempting to suggest that Swedish governments have suffered from a surplus bias, not a deficit bias, a concept frequently adopted to explain fiscal profligacy.

Per Nuder (2004-06)	Member of parliament (1994)	State Secretary Prime Minister's office (1997-2002)
Anders Borg (2006-14)	Political Advisor to Prime minister (1991-94)	Private sector
Magdalena Andersson (2014-)	Part-time lecturer Stockholm School of Economics	Political advisor Prime minister's office (1996-98). Director of Planning Prime minister's office (1998-2004)

Third, the framework has so far proven flexible in the sense that there has been a broad consensus across the political spectrum concerning alterations of the rules. As the economic circumstances change, so has the fiscal framework. The surplus target has been modified and a debt anchor was introduced in 2016. A fiscal policy council to evaluate the government was established in 2007. The flexibility of the framework is likely an important reason behind its durability.

Fourth, the strong reputation of the Fiscal Policy Council forces the government in power to stick to the rules or risk public criticism from one of its own agencies. Media and the opposition parties can refer to the Council in its critique of the government, which enhances the credibility of the Council. In addition, the Fiscal Policy Council has enhanced the public's awareness of the framework, and the budget rules of the framework represent a starting point for public debate on fiscal issues. Few parties dare to promise unfunded expenditure increases or tax cuts due to the critique they may encounter in a political environment, which puts a premium on fiscal prudence.

Fifth, politicians were rewarded by the financial markets for fiscal responsibility in the sense that long term borrowing costs declined as the debt ratio was reduced. In 1995, Swedish 10-year bond yield was 3.5 percentage points higher the German yield despite similar rates of inflation. In 2007, the year before the international financial crisis, Swedish bond yields were 0.1 percentage points lower than German yields. This reduction in borrowing costs became a major incentive to continue to lower the debt ratio as it increased the fiscal space allowing either increased spending or reduced taxation. The Swedish central bank did not act to influence long term bond rates when the public debt levels were high. Instead, bond yields became an important economic indicator of the state of the public finances, and politicians responded to these signals

To sum up, so far the fiscal framework has performed well during its first twenty years. It has been a source of fiscal prudence. It has received a solid support from the political parties and from the public. Let us now turn to the future of the fiscal framework.

4. The future of the Swedish fiscal framework
The success of the fiscal framework raises the question: why change it? Part of the success of the framework has been its adaptability. Future reforms of the framework are likely needed for it to continue to support sustainable public finances and to enjoy broad political support. In fact, the 2016 revised fiscal framework included an automatic review to take place every eight years (every second parliament). The next review is thus due in 2025/26.

We propose two main changes to the framework. First, the public pension system should be removed from the calculation of the surplus target. The public pension system is designed as a self-regulating system that automatically adjusts its spending to its revenues. As a separate entity, it should not be included in the calculations of the fiscal space. The pension system is expected to produce a surplus by the late 2020s. Including it implies that the government can increase its

deficit on current spending against the wealth accumulated in the pension system. Such a situation should be avoided. Pension funds should be used for outlays on future pensions as they are intended for. They should thus not be included in the overall budget calculations.

According to present estimates, the Maastricht debt is expected to fall from 41 percent in 2017 to 30 percent already by 2022 according to a forecast by the Swedish National Financial Management Authority (2018). Removing the pension system would reduce the debt-ratio even further, perhaps completely eradicating central government debt by the late 2020s. This would be a step too far. Eliminating public debt should not be a public policy goal.

We acknowledge that having the opportunity of abolishing government debt completely is *per se* an envious option. However, there are several reasons to maintain a public debt. Sustaining large and consistent budget surpluses risks ignoring vital public investments. High taxation in relation to spending would drain resources from the private sector. Intergenerational considerations imply that future generations should pay for public investments made by present generations. Government bonds are in demand as a "safe" asset for financial markets to price risk and to assess risk levels in their portfolios. Completely eliminating government bonds would make it more difficult for private sector investors to price and handle risk. Eradicating all government bonds removes the infrastructure necessary for issuing debt and servicing debt in case of a nation-wide emergency. Consequently, there are several social welfare benefits of having a public debt relative to have no debt at all.

Initially, the purpose of the surplus target was to reduce a debt ratio deemed too high. Once the debt ratio is moving into lower levels, the surplus target becomes superfluous. Rather than aiming to achieve a fixed surplus over the business cycle, the government should focus on stabilizing the debt ratio at a suitable and prudent long-run level. In other words, the role of the debt anchor should be strengthened. Thus, the question we must address is: which is the proper size of a debt anchor for a country like Sweden?

4.1. Identifying a proper debt anchor for Sweden

The Swedish fiscal consolidation processes during the 1990s and recent events in Southern Europe and on Ireland illustrate the importance for society at large of having adequate fiscal space *before* any major crisis for an expansionary fiscal response, in this way escaping unpopular measures with severe economic and political consequences during and immediately after the crisis. Having sufficient space facilitates a successful fiscal response to crises. Most likely the size of the fiscal multipliers is larger when government debt is lower and trust in the government's ability to sustain the debt is high. Government actions to limit the real economic effects of the crisis thus becomes more effective and the output cost of the crisis is reduced.[83]

In short, we adopt an insurance approach: in case of a major crisis, the fiscal authorities should have sufficient fiscal space, serving as a fiscal buffer, to meet the crisis at a low cost to society. We use a broad concept of "cost" here – including loss in output and employment as well as the political costs of crises.

Having ample fiscal space implies that the political effects of drastic and large austerity measures can be minimized. This is important in any country, not least in a country like Sweden with a

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[83] See for example Jordà et al (2016) and Romer and Romer (2019) for the international evidence. Romer and Romer (2019, p. 12) note a "tremendous variation in the severity and persistence of output declines following financial distress". They explain this variation mainly by differences in fiscal space across countries.

relatively large welfare state and public sector.[84] Swedish households rely on the government for a large share of their consumption smoothing over the life-cycle and during unexpected spells of income losses (e.g. due to unemployment). Cutting back on public spending clearly hurts households financially. Households will struggle to compensate for the loss of public spending in the short to medium run. They will cut private consumption, thus making the downturn deeper during a recession or deep crisis.[85] This was the case during the financial crisis in the early 1990s when Sweden entered a debt deflation process.[86]

Sharp austerity measures are likely to have substantial political consequences as well. As Swedish voters expect the government to fulfil its welfare promises, a disappointing economic performance will fuel populism and make it more difficult to form responsible governments. Typically, erosion of trust in government, in elected politicians and the democratic process takes place during major economic crises.[87] Trust in the Riksdag and the government fell from a net of +40 in the late 1980s before the fiscal consolidation on a scale from plus 100 to -100, to -40 during the fiscal consolidation in the mid1990s (Martinsson and Andersson, 2018). It took many years before trust was restored in Sweden.

To derive a proper level for the debt anchor, we adopt a two-step approach. First, we rely on recent economic history to decide when the cost of servicing government debt begins to increase significantly due to a rising debt level. Here, we want to identify the size of the debt limit or debt threshold where the negative effects of additional debt outweigh the positive effects. Second, we examine the fiscal cost of recent economic crises. Based on these results, we arrive at an estimate of the fiscal space required *before* a crisis such that the government can handle the debt *after* the crisis without drastic austerity measures.

4.2. When does Swedish public debt become unsustainable?

One potential cost of high debt is that it may be a drag on economic growth. We find it difficult to establish exactly when public debt becomes too large in the sense that it hampers economic growth. Figure 3 shows the contemporaneous relationship for Sweden between the public debt ratio and GDP growth in the post-war era (1951-2016). There is no clear relationship between debt and growth. Economic growth has been high and low irrespective of the debt level. Average growth was slightly higher during the years when the debt ratio was between 10 and 20 percent. However, these observations are from the 1960s when growth was high in the entire developed world and thus likely not related to the Swedish debt level. Lagging the debt ratio does not change the results. We find no statistically significant correlation between the debt ratio and economic growth for Sweden. Having a high debt is not directly associated with lower economic growth, at least not at the debt levels observed historically in Sweden.

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[84] Social spending in Sweden in relation to GDP was 26 percent in 2016 compared to the OECD average of 20 percent and 19 percent in the US (OECD, 2016).

[85] Swedish households have a relatively small amount of financial assets compared to households in other OECD countries. Most of Swedish household wealth is in housing (OECD, 2015).

[86] See chapter 2 in Jonung et al (2009).

[87] See for example Eichengreen (2018).

Figure 3. Economic growth and the public debt ratio in Sweden, 1951-2016.
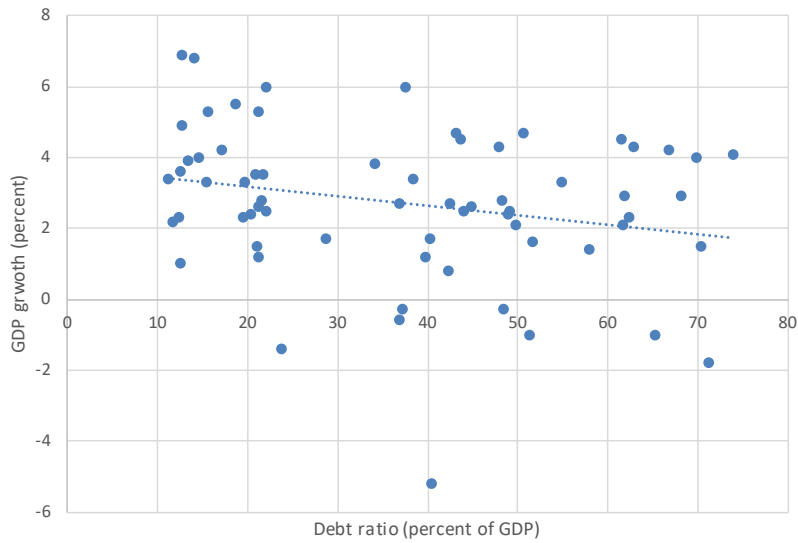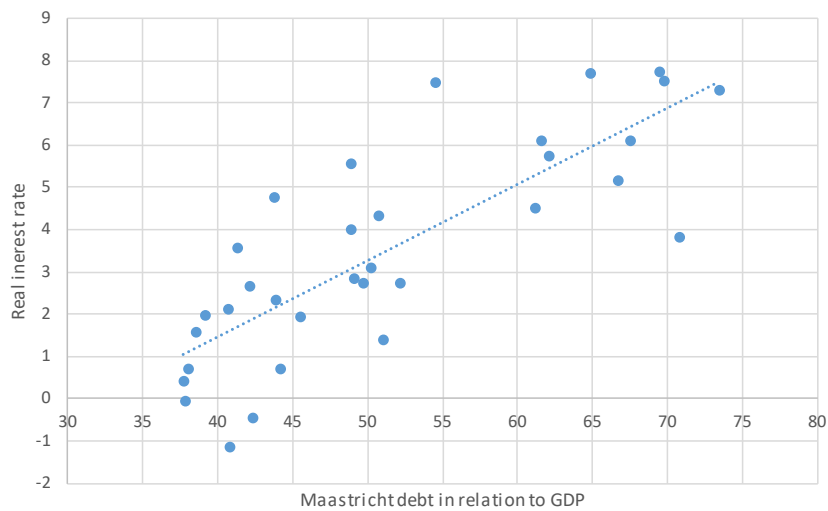

Data source: Thompson Reuters Financial Datastream.

Another potential cost of high debt is the cost of servicing government debt. This is possibly a large cost for a small open economy with its own currency such as Sweden with limited domestic financial markets. A larger domestic debt is likely to require external funding, where the government needs to pay higher rates to attract investors, including taking an exchange rate risk. The relationship between the debt ratio and the real rate of interest is plotted in Figure 4 for Sweden 1985-2017, starting with the liberalization of financial markets in the mid-1980s.

Figure 4 displays a clear positive correlation between the debt ratio and the real rate of interest, a relationship that we should expect. Rapidly increasing real rates during the mid-1990s was a key factor driving the government to balance the budget from a deficit from 15 percent of GDP in 1993 within five years. According to Figure 4, an increase in the debt ratio from 40 percent to 70 percent increased the real interest rate from 1.5 percent to 7 percent.

Real interest rates have declined globally since the 1990s as part of the process of secular stagnation. The relationship in Figure 4 is thus potentially a spurious one as a falling debt ratio and falling interest rates may coincide without being causally related. To control for globally falling interest rates, we plot the relationship between the Swedish debt ratio and the real interest rate difference between Sweden and the United States (Figure 5), and Sweden and Germany (Figure 6).

Figure 4. Real interest rates and the public debt ratio in Sweden, 1985-2017.

Data source: Thompson Reuters Financial Datastream.

Figure 5. The interest rate difference between Sweden and the United States, and the Swedish public debt ratio, 1985-2017.
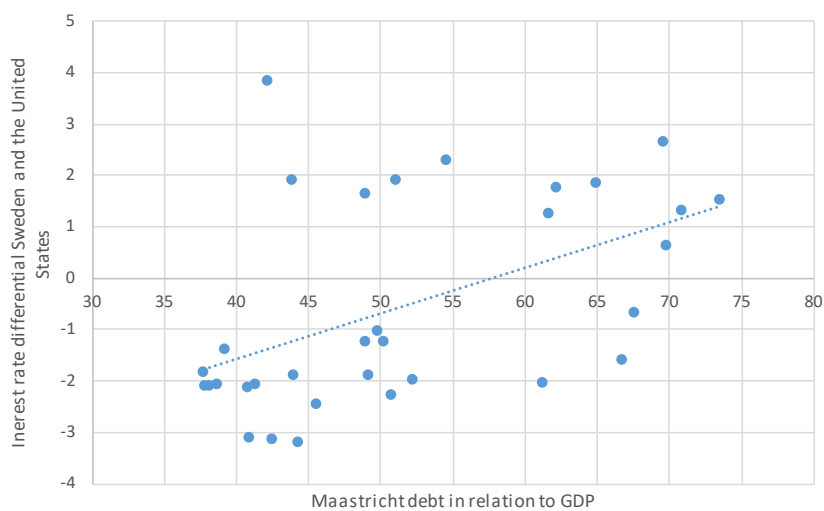
Data source: Thompson Reuters Financial Datastream.

Figure 6. The interest rate difference between Sweden and Germany, and the Swedish public debt ratio, 1985-2017.

Data source: Thompson Reuters Financial Datastream.

Figures 5 and 6 confirm the positive relationship between the debt ratio and interest rates. The result is especially strong when Swedish government bond rates are compared to German bond rates: an increase in the debt ratio from 40 percent to 70 percent implies two percentage points higher interest rates compared to German rates. In relation to the United States, the difference in interest rates between 40 and 70 percent debt ratio is approximately three percentage points.

The increases in interest rates impose a relatively large effect on government finances. The rise in debt raises the cost of debt financing as well bringing about a larger debt to service. The real interest rate in relation to Germany increases by two percentage points at a debt ratio of 70 percent. The additional cost due to the higher interest rate is 1.4 percent of GDP. Simply to balance the budget, the government would have to increase the primary budget surplus by 1.4 percent of GDP. The average Swedish primary budget balance between 2000 and 2017 was 1.1 percent. The interest rate cost, only due to higher interest rates, would require a twice as high primary balance to finance. The cost is not impossible to cover but sufficiently large to be avoided unless in case of a major economic crisis forcing the government to rely heavily on debt financing.

Extrapolating the results suggests that the interest rate difference compared to Germany would increase to 4 percentage points if the debt ratio surges to 90 percent of GDP. The additional debt service cost would be 3.6 percent of GDP.

We conclude from the above calculations that the central government debt-to-GDP should be kept at least below 40 percent in normal times and preferable never exceeding 70-75 percent. We suggest from the historical evidence that a 70 percent debt level is a reasonable debt limit or debt threshold for Sweden.[88]

4.3. Economic crises and the public debt ratio
Debt levels fluctuate with the business cycle and with economic crises. To establish an appropriate debt anchor, our second and final step is to estimate the fiscal cost of major

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[88] This level is consistent with the view of Fall et al (2015) proposing a debt threshold for high income countries in the range of 70-90 percent, close to our threshold of 70 percent. It is also roughly consistent with the finding of Barrett (2018) of a debt limit for the UK of 90 percent, although calculated by a methodology different from ours.

economic crises. Sweden has experienced seven major economic crises since 1870, see the listing in Chapter 6 in Jonung et al (2009): the crisis of 1877/78, the international financial crisis of 1907, the depression of the early 1920s, the Great Depression in the 1930s, OPEC I and II, and the financial crisis in the early 1990s. The international crisis of 2008/09, the Great Recession, should be added to this list although Sweden was only indirectly affected by the crisis and did not suffer from a domestic financial crisis as many EU member states. Still, the decline in the growth rate of GDP was sharp and sizeable.

These eight major crises are highlighted in Figure 2, which plots the Swedish public debt-to-GDP ratio. The effect of these crises on the debt ratio was modest before the Second World War. The welfare state had not yet been created; the public sector was fairly limited. Consequently, the automatic stabilizers were small. In addition, a balanced budget was the aim of the government before the 1930s. The debt ratio shows only modest correlation with the cyclical stance of the economy. Between 1930 and 1935, during the Great Depression, the debt ratio increased by only 6.2 percentage points. Although Sweden was an early adopter of expansionary fiscal policy in the early 1930s, the actual size of the fiscal measures was limited.

Following the Second World War and the rise of the welfare state and the adoption of a Keynesian approach to fiscal policy, the correlation between the business cycle and the volume of government debt is stronger, in particular during economic crises. The largest debt increase took place following OPEC I and OPEC II when the government opted for an expansionary fiscal response. The debt increased by 50 percentage points. The financial crisis 1991-92 made its mark by an increase of 33 percentage points.

We are aware that these episodes of rising debt are time-specific. Today, the idea of a policy of bridging over, like the policy in the wake of OPEC I, would hardly find political support. Policy-makers have learnt from the policy mistakes of the past. The policy experiments in the 1970s and 1980s do not serve as convincing evidence for our estimates of the appropriate debt anchor today.

Instead, we are of the opinion that financial crises constitute the most severe threat facing the global economy presently. The rapid growth of the financial system following the financial deregulation of the 1980s and 1990s has increased financial imbalances. The Great Recession of 2008 has not arrested this build-up. Most of the recent crises are primarily caused by financial developments. In the case of Sweden, financial imbalances have grown significantly since the mid-1990s, raising the risk of future corrections (Andersson and Jonung, 2016).

As we deem a financial crisis the most likely future menace to the fiscal stance of Sweden, we consider the fiscal cost of financial crises internationally in the post-1990 period. Table 2 illustrates these costs post-1990 among EU15, Japan and the United States according to Laeven and Valencia (2018). The first column of Table 2 shows the total increase of the debt level (in relation to GDP), the second column the fiscal cost of supporting the banking system, and the third column the income loss generated by the crises.

Each crisis is different as illustrated by the large variation in the estimates of the costs of crises. The least costly crisis was the Italian crisis in 2008-09 with a fiscal cost of 8.6 percent of GDP. The most expensive one was the Irish 2008-12 crisis with a fiscal cost of 76.5 percent of GDP. Approximately half of the cost is due to the refinancing of the banking system. The cost of the average crisis is 29.5 percent of GDP and of the median crisis 24.9 percent of GDP. The five most expensive crises have an average cost of 48.8 percent, the ten most costly crises a cost of

38.7 percent of GDP on average. In general, the larger the cost for the support of the banks, the larger the total fiscal cost.

Table 2. Fiscal costs of major financial crises in EU15, Japan and the United States.

		Fiscal cost		Macroeconomic cost
Country	Crisis years	Increase in public debt (% GDP)	Public support to banks (% GDP)	GDP-loss (% GDP)
Sweden	1991–95	36.2	3.6	32.9
Austria	2008-12	19.8	5.2	19.2
Belgium	2008-12	22.2	6.2	15.7
Denmark	2008-09	32.8	5.9	35.0
Finland	1991-95	43.6	12.8	69.6
France	2008-09	15.9	1.3	23.3
Germany	2008-09	16.2	2.7	12.3
Greece	2008-12	43.9	28.7	64.9
Ireland	2008-12	76.5	37.6	107.7
Italy	2008-09	8.6	0.7	32.2
Japan	1997-2001	41.7	8.6	45.0
Luxembourg	2008-12	12.7	7.2	43.3
Netherlands	2008-09	24.9	14.3	26.1
Norway	1991-93	19.2	2.7	5.1
Portugal	2008-12	38.5	11.1	35.0
United Kingdom	2007-11	27.0	8.8	25.3
United States	2007-11	21.9	4.5	30.0
Average		29.5	9.5	36.6
Median		24.9	6.2	32.2
Top 5 most costly crises		48.8	19.8	64.4
Top 10 most costly crises		38.7	13.8	45.7

Data source: Laeven and Valencia (2018).

Recent changes in EU-legislation have shifted the responsibility of re-financing failing banks from the taxpayers to the owners of banks. Whether this will be the case in the future remains to be seen. However, even if we exclude the re-financing costs, still we find that the fiscal cost of financial crises is high. The average re-financing costs is 9.5 percent of GDP and for the median crisis 6.2 percent. Most of the increase in debt is due to lower economic growth resulting in lower tax revenues and increased costs for inter alia higher unemployment.

Which conclusions should we draw from these numbers? We are of the opinion that it is reasonable that a country like Sweden should be able to meet an average crisis without running into debt problems, that is the government should be able to sustain an increase in the debt level of between 30 and 50 percent of GDP without facing rapidly increasing interest rates and/or having to seek support from the EU or the IMF. Given that Sweden should avoid debt ratios in excess of 70 to 75 percent of GDP, the debt ratio should be between 20 and 40 percent of GDP *before* the crisis. If we are to err on the side of caution, we should put the debt target in the lower part of this range.

Consequently, we view the present debt anchor of 35 percent of GDP as too high. Instead, Sweden should aim for a central point of no more than 25 percent with a tolerance band of +/- 5 percentage points around the central point to account for normal business cycle fluctuations.

Our proposed size of the new debt anchor prepares Sweden for the consequences of a future major economic crisis. We arrive at this recommendation based on a precautionary or prudent line of reasoning. We want to have a sufficient fiscal space as an insurance against future shocks. We do not claim that we have derived the optimal debt level for Sweden. Rather, we have doubts about the concept of an optimal debt level. The large empirical and theoretical literature on the optimal debt level and on optimal fiscal policy reaches no firm policy recommendations on the size of the public debt-to-GDP ratio.[89] One part of the literature studies the optimal size in relation to public investments and their growth enhancing effects, arriving at no clear recommendation concerning the debt ratio. Another part of the literature focuses on finding a threshold level when the debt becomes a drag on economic growth (see for example Reinhart and Rogoff, 2010), without any firm conclusions. Research on optimal government debt suggests that there is not one optimal level fixed over time and across countries. Instead, the results appear to be time and country specific, as well as depending on the methodological approach adopted. For this reason, we discuss the proper, prudent or "safe" debt level from a crisis insurance perspective that would allow sufficient consumption and tax smoothing over time – ignoring any attempt of defining an optimal debt ratio for Sweden.

4.4. The new debt anchor

Our proposed new debt anchor has several advantages. It is a simple rule, easy to communicate with the public and the adherence to the rule is can be monitored successfully by the fiscal policy council and thus by the public. Once the debt ratio has reached the 25 percent, the surplus target becomes superfluous and should be abolished. A major disadvantage with the present surplus target is that it is relatively demanding to evaluate. Measuring the phase and size of the business cycle is notoriously difficult in real time. The task of estimating the structural budget deficit to quantify the surplus target involves measurement errors. Our debt anchor does not suffer from similar difficulties. It is easy to estimate in real time. We want to distinguish between a flow concept (the budget surplus) and a stock concept (the volume of debt). Of course, they are related but it is much easier to monitor the volume of debt than the structural stance of the budget.

The other building blocks of the fiscal framework should be kept in place: the expenditure ceiling, the Fiscal Policy Council and the debt anchor. The expenditure ceiling is an important element to keep government expenditures in line during good times under a debt anchor. In addition, once the surplus target has been abolished the monitoring of the finances of local authorities should be a prime task of the Fiscal Policy Council.

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[89] See for example the survey by Alesina and Passalacqua (2015).

5. Can Sweden serve as an example for the rest of the EU?

Compared to many EU countries, Sweden is in an envious position with low public debt. However, as Swedish history shows this has not always been the case. Fiscal discipline over a generation has gradually reduced the debt level. The adoption in other countries of a Swedish type of a fiscal framework with expenditure ceilings, a surplus target, a fiscal policy council and a debt anchor may reduce deficit bias. However, it is not enough to adopt new rules, politicians must also adhere to them and the public has to support them.

We want to stress that the fiscal framework of Sweden is embedded in a unique institutional setting, likely to be difficult to establish in other EU member states. In Sweden, the collective memory of the fiscal crisis of the 1990s helped to form a political consensus across the political spectrum concerning the importance of fiscal stability. Market signals through higher interest rates during the 1990s contributed to strengthening this consensus. Falling interest rates, once government debt began to decline, provided further incentives to continue to reduce the debt level. In the euro area, following the crisis of the late 2000s, the policy of the ECB reduced interest rates on public debt, in this way weakening political incentives to stabilize public finances. In Sweden, interest rates fell due to fiscal consolidation after the financial crisis of 1992, not due to the lack of fiscal consolidation as in the euro area after the crisis of 2008.

Countries that are struggling to get their fiscal house in order should view a fiscal framework that relies on a debt anchor as a useful instrument. The original fiscal framework for EU as set out in the Maastricht treaty of 1992 and the Stability and Growth Pact of 1997 has proven insufficient. The Maastricht rules of a maximum debt level of 60 percent and a budget deficit of no more than 3 percent has not served as ceilings. Instead, in the best cases, they have become fiscal targets that too many governments have been aiming for. In the worst cases, the debt ceiling has become a floor rather than a ceiling – thus turning counterproductive. The Maastricht framework has clearly proven insufficient and given rise to a number of additional fiscal rules, pasted more or less ad hoc onto the initial treaty.[90]

By now, EU fiscal governance has turned into a very complicated affair with a wide set of rules and regulations that make the system difficult to monitor, to evaluate and to communicate to the public. In addition, the system is a constant source of tension between "Brussels" (the Commission) and the member states. Another concern is that equal treatment across member states does not seem to be a firm principle.

As Debrun and Jonung (2019) argue, the present EU system of fiscal governance lacks credibility and efficiency. According to Debrun and Jonung (2019, p 155): *In practice, the focus on enforceable rules appears to have resulted in intractable complexity, to the point of putting rules-based fiscal policy at risk. The evolution of the EU fiscal framework illustrates this outcome and the related risk of de-anchoring fiscal expectations."* As an alternative they recommend in their conclusions *"simple, flexible but non-enforceable rules"* that work through *"reputational effects"* In fact, they are proposing a system of fiscal governance similar to the Swedish one. Here the fiscal policy council has an important role to play due to its solid reputation. It serves as a guardian of the collective memory of the high cost of fiscal imbalances.

In our view, the Swedish fiscal framework could serve as a model for the rest of Europe. It is true that it has a weak legal foundation and that the government can break the rules without any legal consequences. However, the framework has evolved through a dialogue across the political spectrum. The political parties accept and stick to the rules because breaking them has negative

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[90] See Larch et al (2010).

political consequences. The Swedish experience clearly demonstrates that a legally weak but politically accepted and endorsed framework can work through reputational effects.

We propose some changes to the Swedish framework: a shift from a surplus target to a debt anchor is the major one. We believe that a debt anchor should be a target for the long run for other EU member states as well. We arrive at this conclusion with the same logic as we do for Sweden. Such a system is simple to understand and easy to monitor. It provides fiscal space to meet major economic crises and to avoid future sovereign bankruptcies as well as reducing the risk of rising populism during a crisis.[91]

Of course, we are aware that it is a far step for many member states like Italy, Greece and France to move to a prudent or "safe" debt level today as low as 25 per cent, in particular as these countries have not yet recovered fully from the recent financial crisis. However, achieving fiscal discipline in Sweden was once regarded as a difficult challenge. But it proved possible to reduce debt in due time. For this reason, we believe it should be possible to do so across Europe as well.[92]

6. Conclusions

The Swedish fiscal policy framework has been a success so far. In fact, it has been too successful in the sense that it will likely lead to a too low a level of government debt in the future. From a debt level of 75 percent of GDP in 1995, the debt ratio is expected to fall to 30 percent by 2022. Recent recessions and the international financial crisis of 2008 have not affected the trend of the debt level. It has continued to fall.

Several factors have contributed to the decline of debt. Widespread public support for the policy first to reduce debt and then to maintain stable public finances has forced the political parties to compete in terms of fiscal responsibility. The experience of the crisis of the early 1990s of a rapid expansion of government debt and of ensuing large reductions in public spending is still in vivid memory. In addition, debt consolidation has rewarded governments with falling interest rates on government debt, giving the political system strong incentives to continue to reduce debt even in good times.

Although the fiscal framework has been a success until now, it is nevertheless unsustainable in the long run in the sense that public debt may turn too low. We must therefore ask the question "what should be the next step?". We argue that the key ingredients in the present fiscal framework should remain, but the pension system should be excluded from the framework and that the surplus target should be removed and greater emphasis should be given to the debt anchor. The surplus target was once vital to reduce the level of debt. However, given that the debt is reaching a low level, reducing it further is unnecessary and comes at a welfare cost to society.

As the history of government debt shows, economic crises are the most dangerous threat to fiscal balance and to political stability. Thus, it is recommendable to design the fiscal framework so it gives protection today against future crises in the form sufficient fiscal space during the crisis. To derive the appropriate level for the fiscal space and thus for the debt anchor for

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[91] The recent crisis in the euro area has reduced public support for the euro and trust in the ECB and in national governments. The decline in support and in trust is closely associated with the rise in unemployment across the euro area. This pattern is especially strong in countries where fiscal austerity measures have been adopted. See Roth et al (2018).

[92] The Swedish experience shows that a country is not guaranteed a free fiscal lunch as suggested by Blanchard (2019). He assumes that the government can consistently borrow at low rates – a view that is clearly inconsistent with the historical evidence. This time is not different.

Sweden, we use a two-step approach. First, we estimate at which debt level the cost of servicing public debt begins to rise sharply. Second, starting from this debt threshold and using data from the fiscal costs of financial crises, we calculate that a debt-to-GDP ratio in the range of 20 to 30 percent would be a prudent level.

References

Alesina A. and A. Passalacqua. (2015), "The political economy of government debt", working paper, department of economics, Harvard. https://scholar.harvard.edu/files/alesina/files/political_economy_of_gov_debt_dec_2015.pdf

Andersson, F. N. G. (2016), "A blessing in disguise? Banking crises and institutional reforms", *World Development,* 83, 135-147.

Andersson, F.N.G. (2017). "Sekulär stagnation. Vad är det och hur påverkar det penningpolitiken? *Ekonomisk Debatt*, 45(7), 13-25. https://www.nationalekonomi.se/sites/default/files/NEFfiler/45-4-fnga.pdf

Andersson, F.N.G. and L. Jonung. (2016). "The credit and housing boom in Sweden, 1995-2015: Forewarned is forearmed", VoxEU.org. https://voxeu.org/article/credit-and-housing-boom-sweden-1995-2015

Barrett, P. (2018), "Interest-growth differentials and debt limits in advanced economies", IMF working paper 18/82, IMF.

Blanchard, O. (2019), "Public debt and low interest rates". *American Economic Review*, 109(4), 1197-1229.

Calmfors, L. (2013), "Sweden: Watchdog with a broad remit", chapter 10 in G. Kopits, ed., *Restoring public debt sustainability. The role of independent fiscal institutions*, Oxford, Oxford University Press.

Debrun, X. and L. Jonung. (2018), "Under threat: Rules-based fiscal policy and how to preserve it", pp 142-157, *European Journal of Political Economy*.

Fall, F., D. Bloch, J.M. Fournier and P. Hoeller. (2015), "Prudent debt targets and fiscal frameworks", *OECD Economic policy paper series,* 15, July, OECD, Paris.

Fregert, K. and R. Gustavsson. (2013), "Financial statistics for Sweden 1670–2011", in R. Edvinsson, T. Jacobson and D. Waldenström, eds., *House prices, stock prices, national accounts and the Riksbank's balance sheet, 1620–2012*, Ekerlids förlag, Stockholm, https://www.riksbank.se/sv/om-riksbanken/riksbankens-uppdrag/forskning/historisk-monetar-statistik-for-sverige/volume-i-exchange-rates-prices-and-wages-1277-2008/

Eichengreen, B. (2018), *The populist temptation. Economic grievance and political reaction in the modern era*, Oxford, Oxford University Press.

Eichengreen, B., A. El-Ganainy, R. P. Esteves and K. Mitchener. (2019), "Public debt through the ages", IMF working paper 19/6, Washington.

Jonung, L. (1999), *Med backspegeln som kompass - om stabiliseringspolitiken som läroprocess*, rapport till ESO, Ds 1999:9, Finansdepartementet, Stockholm, mars, 1999. http://eso.expertgrupp.se/wp-content/uploads/1999/10/Ds-1999_9-Med-backspegeln.pdf

Jonung, L. (2015), "Reforming the fiscal framework: The case of Sweden 1973-2013", chapter 8 in T. Andersen, M. Bergman and S. Hougaard Jensen, eds., *Reform capacity and macroeconomic performance in the Nordic countries*, Oxford, Oxford University Press.

Jonung, L. (2018), "Homegrown: The Swedish fiscal policy framework", chapter 12 in R. Beetsma and X. Debrun, eds., *Independent fiscal councils: Watchdogs or lapdogs?,* VoxEU.org eBook. CEPR Press. https://voxeu.org/content/independent-fiscal-councils-watchdogs-or-lapdogs, January.

Jonung, L., J. Kiander and P. Vartia, eds., *The Great Financial Crisis in Finland and Sweden*, Edward Elgar, Cheltenham.

Jordà, O., M. Schularick and A. Taylor. (2016), "Sovereigns versus banks: Credit, crises, and consequences," p. 45-79, vol.14, *Journal of the European Economic Association.*

Kommuninvest (2017), *Den kommunala låneskulden.* Stockholm: Kommuninvest. https://kommuninvest.se/wp-content/uploads/2017/10/Den-kommunala-l%C3%A5neskulden-2017-171016.pdf

Larch, M., P. van den Noord and L. Jonung. (2010), "The Stability and Growth Pact. Lessons from the Great Recession", European Economy. Economic Papers, no. 429, December, Brussels. ISBN: 9978-92-79-14915-3 ISSN: 1725-3187. http://ec.europa.eu/economy_finance/publications/economic_paper/2010/pdf/ecp429_en.pdf.

Laeven, L., and F. Valencia. (2018), "Systemic banking crises revisited", IMF working paper 18/206. https://www.imf.org/en/Publications/WP/Issues/2018/09/14/Systemic-Banking-Crises-Revisited-46232

Manasse, P. and D. Katsikas, eds., (2018), *Economic crisis and structural reforms in Southern Europe. Policy lessons*, Routledge.

Martinsson, J. and U. Andersson, eds., (2018), *Svenska trender 1986-2017*, SOM Institute, Gothenburg University. https://som.gu.se/aktuellt/Nyheter/Nyheter_detalj//svenska-trender-1986-2017.cid1569129

OECD (2015), *National accounts at a glance*, Paris: OECD. https://www.oecd-ilibrary.org/economics/national-accounts-at-a-glance_22200444

OECD (2016), *Society at a glance*, Paris: OECD. https://www.oecd-ilibrary.org/social-issues-migration-health/society-at-a-glance_19991290

Persson, M. (1996), "Swedish government debts and deficits, 1970-1995", *Swedish Economic Policy Review*, vol. 3, no 1.

Reinhart, C. and K. Rogoff. (2009), *This time is different. Eight centuries of financially folly*, Princeton University press, Princeton and Oxford.

Romer C. and D. Romer. (2019), "Fiscal space and the aftermath of financial crises: How it matters and why", BPEA conference drafts, March 7-8, Brookings Papers on Economic Activity.

https://www.brookings.edu/bpea-articles/fiscal-space-and-the-aftermath-of-financial-crises-how-it-matters-and-why/

Riksbank (1984), *Statistical yearbook 1983*. Stockholm: Riksbanken.

Roth, F., E. Baake, L. Jonung and F. Nowak-Lehmann. (2018), "Revisiting public support for the euro, 1999-2017: Accounting for the crisis and the recovery", Department of economics, Lund university, working paper 2018:9, https://ideas.repec.org/p/hhs/lunewp/2018_009.html, forthcoming *Journal of Common Market Studies*.

SOU 2016:67, *En översyn av överskottsmålet*, (A review of the surplus target), Department of finance, Stockholm.

Swedish National Financial Management Authority (2018), *Prognos. Statens budget och de offentliga finanserna*, (Forecast. The budget of the government and public finances), April 2018. https://www.esv.se/contentassets/903a877bc36745caa65f15044771ffb0/prognos-april-2018.pdf

Von Hagen, J. (1992), "Budgeting procedures and fiscal performance in the European Communities", *Economic Papers* 96, DGII, European Commission, Brussels.

Wyplosz, C. (2002), "Fiscal policy: Institutions vs. rules", chapter 5 in *Stabiliseringspolitik i valutaunionen*, (Stabilization policy in the monetary union), SOU 2002:16, Fritzes, Stockholm.

6 Some Elements for a revamped Fiscal Framework for Spain[93]

Carlos Cuerpo and Lucia Rodriguez, Spanish Independent Authority for Fiscal Responsibility (AIReF)

1. Scene-setter

As Spain continues its economic recovery, reducing the crisis public debt legacy remains one of its main challenges ahead. After four years of robust growth, current estimates suggest that Spain may be at the onset of a new economic cycle, with the output gap coming back to positive territory in early 2019. However, public debt remains at record-high levels hovering around 100% of GDP, 40pp. above its levels at the start of the previous cycle, in the early 2000s. As can be seen in figure 1, this picture is rather generalized across the euro area, with an increasing number of countries above the 60% reference level and an average increase of 20 pp. in the region. In this context, debt sustainability remains a key challenge. Spain should take advantage of favorable cyclical conditions to generate fiscal buffers that could help accommodating future shocks.

Figure 1. General government debt as a % of GDP, 2000 and 2018, euro area countries
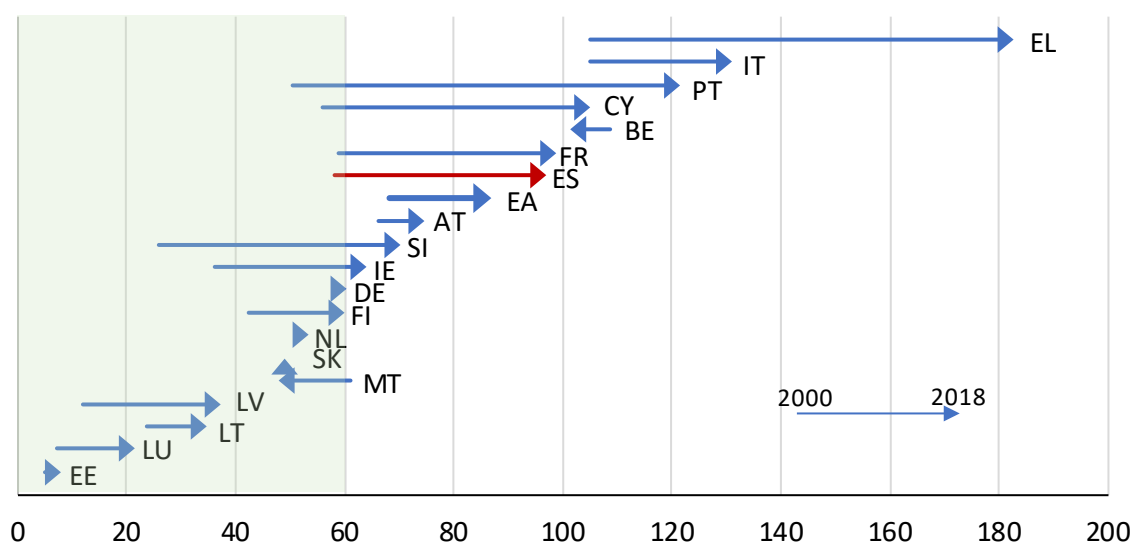
Source: AMECO

The current fiscal framework (both at the EU and domestic level) appears insufficient to ensure an adequate debt-reduction path for Spain. After being subject to the corrective arm of the Stability and Growth Pact since 2009, Spain is expected to enter its preventive arm shortly. At

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the national level, public authorities are bound by the Organic Law on Budgetary and Financial Stability, passed in 2012. Both sets of provisions suffer from flaws that could lead to either wrong policy recommendations or a limited implementation. At the EU level, the preventive arm excessively relies upon unobservable indicators and its enforcement has been weak. At the national level, the current formulation of the expenditure rule does not ensure adequate progress towards the MTO when the structural balance is distant from it.[94] Moreover the two set of provisions are not fully consistent with each other, thus creating a convoluted regulatory framework. As a result, the monitoring and enforcement of the different provisions has become extremely cumbersome.

Moreover, relying exclusively on fiscal rules, based on numerical benchmarks, has proven not to be a guarantee of success in ensuring fiscal discipline in the pre-crisis period. As a reaction to this, there has been a decisive move within the European Union towards complementing fiscal rules with enhanced institutions, with the creation of Independent Fiscal Institutions (IFIs). However, the focus of the debate is too often still pinned to numerical debates, with endless discussions on alternative estimates of unobservable variables.

The interplay between rules and IFIs needs yet to be reinforced to unlock the full potential of domestic fiscal frameworks. The on-going revision of the euro area architecture provides a window of opportunity for countries to revise their domestic set-up in this direction. Last December the Commission set out several proposals for deepening the Economic and Monetary Union. Prominent among them is the proposal for a Council Directive laying down provisions for strengthening fiscal responsibility and the medium-term budgetary orientation in the Member States, which opens the door for possible changes in the national legislation. It establishes that each Member State shall set up a framework of binding numerical fiscal rules which are specific to it and effectively promote compliance with its obligations deriving from the Stability and Growth Pact. Moreover, it assigns an upgraded role to independent fiscal institutions such as AIReF (see box 1 for more details on the Commission's proposal).

Against this background, this paper puts forward a proposal for a revamped fiscal framework in Spain based on two main pillars, a central spot for debt sustainability and an enhanced institutional role for the Spanish independent fiscal authority. First, debt reduction is given a more prominent role, serving as an anchor against which to gauge developments in an intermediate target (primary balance) and a short-term operational instrument (nominal expenditure), analogous to monetary policy. Second, from an institutional point of view, the framework envisages a strengthened role for Spain's independent fiscal institution to limit the areas where discretion could undermine the whole effectiveness of the framework, such as the assessment of the cyclical situation or the no-policy-change projections for the primary balance.

The rest of the paper is organized as follows. Section 2 provides a brief overview of some literature references on the rationale for the existence of fiscal rules and their interplay with independent fiscal institutions. Section 3 sets out the main pillars of the proposed framework as well as some implementation considerations involving the Spanish IFI. Section 4 puts forward counterfactual real-time simulations of how this framework would have worked in Spain in the last 18 years, along with some sensitivity analyses. Conclusions are summarized in section 5. There is a complete annex with more details on the sensitivity analysis as well as results of an

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[94] The Spanish expenditure rule establishes that net expenditure growth should not exceed the medium-term potential growth rate of the economy. This delivers a neutral fiscal policy which is adequate when debt levels are not excessive and the underlying fiscal position is balanced. However, this ceiling delivers too lax a policy when an adjustment is necessary.

optimization program trying to determine *ex-ante* the optimal annual effort for Spain, given its current debt level.

Box 1. Commission's Proposal for a Council Directive laying down provisions for strengthening fiscal responsibility and the medium-term budgetary orientation in the Member States

Last December the Commission put forward a proposal to integrate the substance of the Treaty on Stability, Coordination and Governance (TSCG) into the Union legal framework.

The TSCG was signed on 2 March 2012 by 25 Contracting Parties (all Member States except the Czech Republic and United Kingdom) and entered into force on 1 January 2013. The cornerstone of the TSCG is its Title III, which sets out the so-called 'Fiscal Compact'. Its main provision is the obligation for Contracting Parties to enshrine in binding and permanent national provisions, preferably constitutional, a balanced-budget rule in cyclically adjusted terms. In 2012, the 25 signatory Member States legally committed to incorporate the substance of that Treaty into Union law five years after its entry into force.

The proposed Directive establishes that each Member State shall set up a framework of binding and numerical fiscal rules which are specific to it and effectively promote compliance with the Stability and Growth Pact. In particular, such national frameworks shall include a medium-term budgetary objective and a medium-term growth path for government expenditure net of discretionary revenue measures, to which annual budgets shall abide. Both shall be set so that convergence towards prudent debt levels is ensured. Independent fiscal institutions are given a more prominent role in the proposed Directive. They are tasked with monitoring compliance of the national framework and assessing the adequacy of the medium-term objective and the expenditure path.

Finally, Commission's proposal establishes that the Directive shall be fully transposed by 30 June 2019.

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2. The rationale for fiscal rules and their interplay with independent fiscal institutions

The case for rules over discretion arises from the problem of time inconsistency of policy. First brought forward in the seminal paper of Kydland and Prescott (1977), the problem of time inconsistency is related to the fact that policymakers can announce a certain course of policy action to influence expectations, and then renege on their announcement at a later stage. Understanding this time inconsistency, private decisionmakers may be led to distrust policy announcements altogether. Thus, one way of solving this problem is to replace policymakers' discretion with a credible commitment to a policy rule.

The time inconsistency of fiscal policy is crystalized in the deficit bias, also linked to the common pool problem. Although many reasons have been advanced by the large literature that tries to pin down the deficit bias (Calmfors and Wren-Lewis, 2011) two explanations seem to dominate. Both relate to the common pool problem, by representing a different temporal dimension of it. The intertemporal common pool problem relates to the tendency to push out the burden of fiscal discipline to future governments or future generations. Instead, the intratemporal dimension has to do with the fact that deficit-increasing measures typically tend to favor relatively small groups (Wyplosz, 2012). These groups lobby for tax reductions or spending increases with insufficient regard to the full budgetary costs these measures will imply. (Re)election probabilities are enhanced by catering to interest groups and hence the tendency for fiscal profligacy.

Fiscal rules aim at correcting distorted incentives and containing pressures to overspend. Since finding political support to rein in deficits may be difficult to achieve, the political process that drives the preparation, adoption and execution of the budget is intervened through the adoption of fiscal rules. Furthermore, in a currency union supranational rules are aimed at internalizing the regional cost of fiscal indiscipline and establish a framework for better coordination of the policy mix (Kumar et al, 2009). Along with fiscal rules, countries increasingly rely on independent fiscal institutions to curb the deficit bias (Beetsma et al, 2018).

Generally, fiscal rules share the feature of imposing numerical norms, usually expressed in terms of deficit caps, debt limits and expenditure ceilings. Numerical fiscal rules are widespread and come in a large variety of forms that can be systematized in few categories: debt rules, budget balance rules, structural budget balance rules, expenditure rules or revenue rules (IMF, 2018). Since the different types of rules have pros and cons there has been a tendency to combine two or more of them in later generations of fiscal rules. Thus, they tend to be more complex (Schaechter et al., 2012). The current set up of the Stability and Growth Pact is rather illustrative in this respect.

Fiscal rules are generally assessed against a set of desired features initially proposed by Kopits and Symansky (1998). Combined, these criteria are meant to ensure that the rules perform their tasks effectively – ensuring sustainability and economic stabilization – and efficiently – through simple prescriptions that are easy to communicate and enforce. Since these criteria are often found in clash with each other, selecting a fiscal rule involves determining the costs and benefits of different alternatives and trying to minimize possible trade-offs (IMF, 2018). An alternative approach places explicit weights on each criterion according to the country preferences (Carnot, 2014).

A renewed appreciation for simple fiscal rules is spreading, particularly across the EU. Reforms that made the EU fiscal framework more flexible and growth friendly have resulted in an overly sophisticated architecture. The fact that national fiscal rules overlap with EU fiscal rules further complicates the picture and often results in extremely cumbersome regulatory frameworks, slightly different (or not so slightly) across all 27 Member States. This complexity makes it difficult to understand and enforce (Eyraud et al, 2018b). Against this background, the case for simple fiscal rules structured around a fiscal anchor and one or two operational targets is becoming ever stronger.

Moreover, recent evidence points towards the importance of IFIs in complementing fiscal rules (see Eyraud et al. 2018a and Beetsma and Debrun 2016). IFIs can contribute along two main dimensions. First, they can help in proper rule-designing and their revisions, benefiting from their on-the-ground experience. Second, the also have a role to play in monitoring compliance with the rules and adding transparency and predictability to the overall framework.

Overall, IFIs can help numerical fiscal rules in reducing the deficit bias and thus improve fiscal responsibility via enhanced transparency and limiting room for discretion for policymakers (see for example, Calmfors 2015). More precisely, IFIs can alleviate temporal inconsistency by producing inertial or no policy change scenarios, providing independent and transparent analysis, adopting a medium-term perspective and putting the focus on debt sustainability and last, but not least, by acting as guarantor of the rules mainly by affecting policymakers reputational costs, as shown in table 1.

Table 1. IFIs role in reducing the deficit bias

Deficit bias meterialization	IFIs mitigating factors
Optimistic forecast	Production/endorsement of forecast
Room for discretion due to the lack of transparency	Objetive, non-partisan análisis with methodological disclosure
Shortsighted view	Medium-term perspective and focus on sustainability analysis
Resistance to abide by the rules	Guarantor of rules, use of reputational cost

3. A revamped framework

This section sets out the main underpinnings of the proposed numerical framework, while also specifying certain aspects of its implementation in which the potential role of the Spanish Independent Authority for Fiscal Responsibility (AIReF) is highlighted.
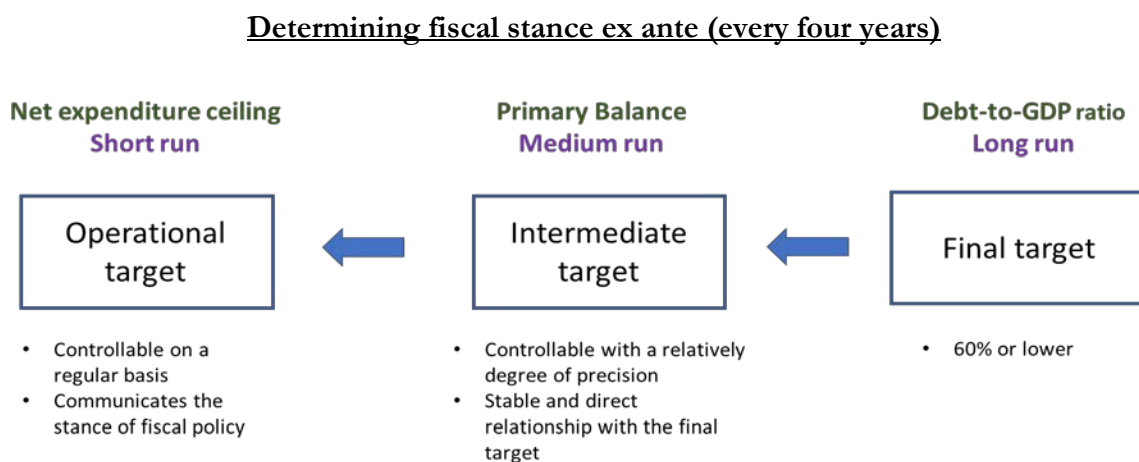
3.1. The rule

The framework departs from the premise that ensuring debt sustainability while allowing room for the automatic stabilizers to operate constitutes the final goal of fiscal policy.[95] The outstanding liabilities of the consolidated government sector are generally seen as an encompassing indicator of fiscal vulnerability. In a country that faces a large government debt burden fiscal rules should target reducing the debt ratio and then stabilizing it at a prudent level. At the same time, fiscal rules should allow automatic stabilizers to perform their function of partly offsetting economic fluctuations without direct government intervention.

Given that goal and following Kopits and Symansky's seminal contributions, the framework should be well defined, transparent, simple, flexible, adequate, enforceable, consistent and efficient. In order to attain that, the fiscal rule should (1) revolve around the use of few, distinct and observable indicators that are easy to trace and suitable for assessing governments' fiscal policy actions. Furthermore, the framework should allow the accommodation of shocks beyond the control of the authorities by envisaging well-defined escape clauses. Finally, fiscal policy should be yearly constrained in a way that is linked to its ultimate goal, i.e. ensuring sustainability while letting automatic stabilizers operate.

The framework is articulated around a triple time dimension – short, medium and long run – and three indicators, each characterizing one of the three horizons. Analogous to monetary policy the framework embeds an annual operational target for the short term, an intermediate target for the medium run and a final target in the long run (see Figure 1). Following Bindseil (2004) the operational target can be defined as an economic variable, which the authorities want to control, and indeed can control to a very large extent on a regular basis through the use of its fiscal policy instruments (i.e. the budget). It is the variable the level of which communicates the stance of fiscal policy to the public and, as such, includes an indication of the discretionary element of fiscal policy. In turn, the intermediate target is an economic variable that the fiscal authorities can control with a relative degree of precision, and which is in a stable or at least predictable relationship with the final target of fiscal policy.

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[95] As opposed to other possible goals such as inflation-output trade-off for instance.

Figure 2. The three horizons of the fiscal policy framework

<u>**Determining fiscal stance ex ante (every four years)**</u>

Net expenditure ceiling
Short run

Primary Balance
Medium run

Debt-to-GDP ratio
Long run

| Operational target | ← | Intermediate target | ← | Final target |

- Controllable on a regular basis
- Communicates the stance of fiscal policy

- Controllable with a relatively degree of precision
- Stable and direct relationship with the final target

- 60% or lower

<u>**Assessing internal consistency ex post (every four years)**</u>

Source: AIReF

Gross government debt operates as the final target and long-term anchor, crystallizing the ultimate goal of fiscal policy. The final target is expressed as a ceiling for the gross debt-to-GDP ratio towards which government debt should decline. A measure of gross rather than net debt is favored because the valuation of government assets is usually debatable, thus weighing on the transparency of the framework. The actual ceiling can certainly be no higher than 60% to fulfil the requirements of the Stability and Growth Pact, but could be lower if additional buffers are deemed necessary.[96] While a limit on the gross debt-to-GDP ratio can be interpreted as a broad measure of fiscal sustainability, year-to-year debt targets are unlikely to be credible or operational since they are often exposed to valuation changes and other factors outside the control of the authorities.

The intermediate target is a flow indicator of fiscal performance, that is, a level for the primary balance-to-GDP ratio. It is set relative to a norm and as a function of the economic situation. The primary balance has a straightforward, direct and stable relationship with the final target. Leaving aside stock-flow adjustments, there are just two ways of reducing debt: first, through a favorable snowball effect or second, by accumulating primary surpluses.[97] Since relying on the former cannot be considered an adequate course of policy action, any fiscal framework that has debt reduction as its final target should focus on the evolution of primary balances. Given the debt target and the number of years to attain it – i.e. given a pace of debt reduction that is considered adequate – it is straightforward to derive the constant primary balance consistent with it (hereinafter, the primary balance norm). Since primary balances are expected to automatically deteriorate in downturns and improve in upswings, attaining the primary balance norm on average requires outperforming it during upswings. Thus, the intermediate target (TT) is

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[96] Further work includes developing a framework to determine appropriate debt ceilings and periods to attain it.
[97] See Annex 1 for more details on the relationship between the final debt target and the primary balance intermediate target.

a medium-term level for the primary balance-to-GDP ratio – valid for 4 years – that is derived, relative to the norm (PBN), as a function of the economic situation.[98]

$$IT_{t,t+4} = PBN + \varepsilon * OG_{t,t+4}$$

Where:

- $OG_{t,t+4}$, is the average output gap for the period *t* to *t+4* as projected in *t-1*, and
- ε , is the average semi-elasticity of the government balance to the output gap
- PBN, is the constant primary balance that will hit the final debt target in a given period of time, under given assumptions of nominal growth and nominal interest rates

The primary balance intermediate target acts as an anchor for expectations ex ante, but does not imply that the government is held accountable for attaining a specific level of that variable. The latter would not be consistent with the final goal of the framework, which includes letting automatic stabilizers operate. In fact, if the government's actions were assessed against a primary balance reference, the effect of automatic stabilizers would need to be constantly counteracted. Furthermore, the control of the primary balance by the fiscal authorities is imperfect because there are lags. Instead, the primary balance intermediate target acts as an anchor for expectations and sets a benchmark for medium-term budgetary planning. Furthermore, it is the pivotal element that allows effectively translating the final target (debt reduction) into a specific metric for the operational target. It is against the latter that government's actions will be assessed (see below).

Ex post, the comparison of observed primary balances with the intermediate target allows to periodically re-evaluate the internal consistency of the framework. Assuming the required fiscal measures are implemented, if the primary balance of the previous four years missed the intermediate target on average, the cyclical calculations or revenue projections should be revised. The relationship between the three levels of the framework needs to be reassessed for the following round of 4 years. Thus, the intermediate target provides a reference against which the internal consistency of the framework can be periodically reassessed to ensure annual fiscal requirements stay aligned with the final target.

Net expenditure ceilings serve as the operational target. The difference between the baseline primary balance projection for the following year and the intermediate primary balance target yields the amount of measures to be implemented by the government on a given year. In order to avoid requiring extremely large measures, which will not be credible, some absolute limits can be added to the framework – a maximum and minimum adjustment of 1% and 0% of GDP is assumed in this case. Section 4 below provides further nuances in relation to the setting of such limits. While the upper limit precludes the framework from requiring exceptionally large adjustments, it does not mean these are proscribed by it. On the contrary, they remain a policy option. The yearly ceiling for net expenditure growth results from the fiscal effort (FE) formula below (in % of GDP):

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[98] Note that the intermediate target can easily be translated into a cyclically-adjusted primary balance reference for the four-year period (i.e. analogous to the MTO)

$$FE_{t+i} = \begin{cases} \boldsymbol{min}\ [\mathbf{1};\big(IT_{t,t+4} - PB_{t+i}^{t+i-1}\big)] & ,\boldsymbol{if}\ IT_{t,t+4} > PB_{t+i}^{t+i-1} \\ \\ 0 & ,\boldsymbol{if}\ IT_{t,t+4} < PB_{t+i}^{t+i-1} \end{cases}$$

$$i = 0 \dots 3$$

Where:

- PB_{t+i}^{t+i-1} , is the no-policy-change primary balance in year $t+i$ as projected the year before

Thus, fiscal policy is set to be contractionary or neutral. Under specific circumstances, expansionary measures can be envisaged (see below) but are in principle ruled out in the current context of normalized economic conditions and excessive debt levels. Similarly to what happens in the preventive arm of the Pact, the yearly ceiling for nominal net expenditure (NE) is derived as follows:

$$NE_{t+i} = E_{t-1} * \prod_{i=0}^{3}\left[1 + pot_{t+i} - \left(\frac{FE_{t+i}}{PExp_{t+i}} * 100\right)\right]$$

Where:

- NE_{t+i}, is the level of nominal expenditure (E) net of the budgetary impact of discretionary revenue measures
- E, is a nominal primary expenditure aggregate corrected for cyclical unemployment expenditure
- pot , is a reference for nominal medium-term potential GDP growth,
- $PExp$, is the share of government primary spending in GDP

Figure 3. Determining the fiscal stance

Determining the primary balance norm and the intermediate target (% GDP)
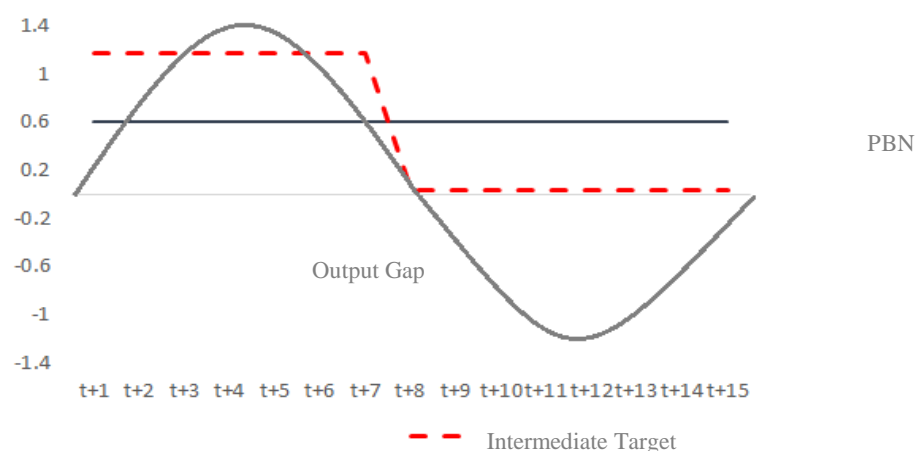
Determining the annual measures (% GDP)
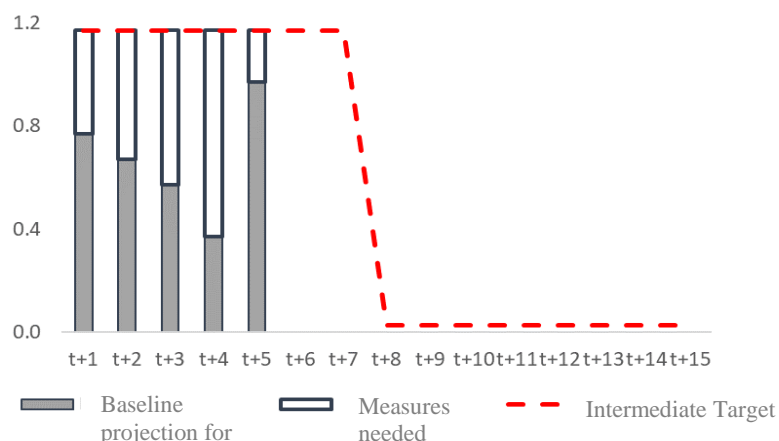
Source: AIReF

Escape clause

When designing fiscal rules, escape clauses are instrumental in striking the right balance between credibility of commitment on the one hand and flexibility to respond to shocks on the other hand. It is generally acknowledged that fiscal frameworks should have sufficient flexibility in their design to allow for an appropriate response to large negative unpredictable shocks. This, however, should not jeopardize the discipline imposed by the rules and their benefits in terms of credibility of government commitment. In principle, this can be achieved with well-defined escape clauses that cater for the occurrence of such shocks.

Careful design is important to avoid the abuse of escape clauses to circumvent fiscal rules. The literature on the effect of escape clauses is inconclusive. On the one hand, they can lead to lower compliance probabilities, creating loopholes that ultimately allow general government debt to rise (Reuter, 2016). However, it is also found that well-defined escape clauses render fiscal frameworks less procyclical (IMF, 2013). When it comes to their design, there are five main relevant dimensions: (i) the nature and magnitude of the shocks to be accommodated; (ii) the magnitude of the fiscal response to the shock; (iii) the length of period during which the rule would be relaxed or put into abeyance; (iv) a path of return to full observance of the rule; (v) and the responsibility for activating the clause and monitoring its implementation (Ter-Minassian, 2010).

Several reasons speak to the need for escape clauses to have some country-specific elements. Country-specific circumstances should be taken into account, such as the type of shocks the country is most exposed to and the sensitivity of certain fiscal aggregates to such shocks. Likewise, the fiscal space available to accommodate them depends on the public finances situation of the concerned country (Public Finances in EMU - European Economy 4/2010). This calls for the involvement of independent fiscal institutions in the implementation of escape clauses.

3.2. Implementation and the role of AIReF

While good design is fundamental for the success of fiscal frameworks, no set of rules can do well if adequate surveillance mechanisms are not put in place. The effectiveness of any set of fiscal rules is strongly dependent on both adequate design and reliable enforcement procedures.

The involvement of the IFI at these stages is crucial and should refer to both the ex-ante and the ex-post dimension of the framework's implementation, as can be seen in figure 4.

Figure 4. Involvement of the independent fiscal institution
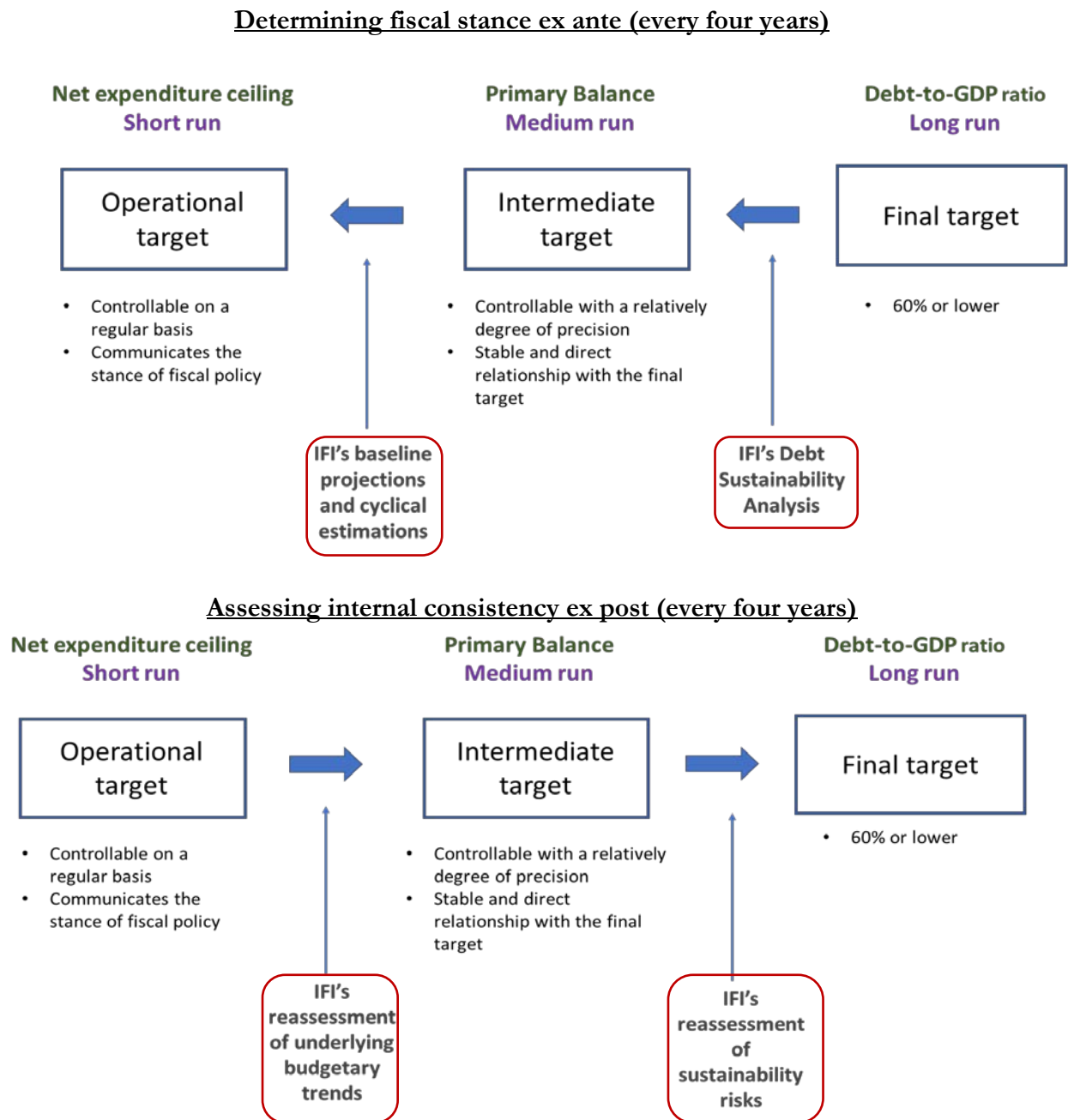
Source: AIReF

Ex ante assessment

The definition of the anchoring debt level should, to the extent possible, derive from a political agreement. Consensus amongst the target would imply greater commitment with the framework as well as enhanced ownership from political actors. AIReF's risk analysis can contribute by crunching the numbers on the extent of potential or contingent risks in the long run (such as ageing), which should be considered while depicting an adequate buffer for future shocks.

The convergence path towards the anchor also has an important political component to it. The policymaker should underpin a medium-term plan geared towards the long-term anchor. Every four years, the framework derives the primary balance intermediate target, providing a medium-term underpinning for the budgetary framework. This intermediate objective in turn can draw from what Spain's fiscal council considers to be an adequate debt reduction path for the medium to long run. That is, it is set consistently with the final debt reduction target.

Every year the fiscal council determines the ex-ante fiscal effort to be undertaken, based on its no-policy-change projections. In spring or summer of year *t-1*, ahead of the preparation of the budget for the coming year, the fiscal council determines the size of the fiscal effort to be implemented in year *t* by comparing its no-policy-change primary balance projection with the intermediate target. This is translated into a nominal ceiling for net expenditure. It falls into the political arena to decide on specific revenue or expenditure measures.

All in all, some decisions remain in the hands of policymakers although IFIs have a role in limiting an excessive use of discretionary levers that could lead to deficit biases. Table 2 summarizes the potential contributions from AIReF to restricting policymakers room for discretion within the proposed framework.

Table 2. AIReFs role in reducing the deficit bias

Discretionary levers	AIReF's contribution
Bias in the estimation of the cycle: optimistic macro forecast	Estimation of the cyle with a médium-term perspective
Spending and revenue dynamics: shortsighted view and neglecting total costs	Medium-term revenue and expenditure scenarios under a no-policy change scenario
Discretionary revenue measures: optimistic bias	Independent assessment/estimation
No consideration of uncertainty in the long-term parameters	Independent estimation of potential growth and uncertainty surrounding its main driving factors

Ex post assessment

Ex-post, the fiscal council produces a yearly report assessing compliance with its proposed course of fiscal policy. Any slippage with respect to the previous' year ceiling is not carried forward because yearly nominal expenditure ceilings are derived from a fixed starting value for the relevant expenditure aggregate. Cyclical estimations and revenue projections are reassessed every four years to keep the validity and internal consistency of the framework. However, these estimations play a minor role in the yearly assessment of compliance or setting of requirements.

Fiscal councils should be able to report the European Commission on the existence of gross policy errors. Regardless of the values of specific fiscal variables with regard to any possible thresholds, a procedure could be envisaged so that independent fiscal institutions report on the existence of gross policy errors that could endanger the sustainability of public finances.[99] The threat of an EDP opening (in case the latter could be activated not only when certain thresholds are breached but also when gross policy errors are more generally detected) could provide the necessary incentives for compliance

Escape clause

Certain situations may warrant the suspension of the general framework and the adoption of expansionary measures. However, preserving the integrity and internal consistency of the framework advises that the occurrence of such circumstances be gauged by an independent institution. The magnitude by which fiscal policy can depart from the general rule – that is, from the yearly nominal ceiling resulting from the expression above – can be left open instead of resulting from an algorithm.

Therefore, the independent institution could have a responsibility in the triggering of the escape clause and its calibration as well as in the transition back to the full implementation of the framework, as stated in table 3.

Table 3. Summary of the proposed escape clause

	What?	Who?	When?
Trigger	Acute economic recession	Fiscal Council	At the request of the MoF or on the fiscal council's own initiative
	Other events outside govt's control with a deficit-increasing impact of at least 1% of GDP		
Allowance	Neutral fiscal policy by default	Fiscal Council	One year by default and possibility to reevaluate
Return to rule	Possibility of modulating the requirement resulting from general framework	Fiscal Council	After one year by default

Source: AIReF

The trigger

Only truly exceptional circumstances should allow for the triggering of the clause. It is proposed that flexibility is closely-circumscribed to (i) acute economic recessions, or (ii) natural disasters or other events outside government's control with a negative impact in the general government balance of at least 1% of GDP. The latter threshold ensures that the extraordinary event has a major impact on public finances and thus, its occurrence is exceptional.

An independent institution could be tasked with gauging the conditions that trigger the escape clause, based on a combination of indicators.[100] Making independent institutions responsible for triggering the escape clause is one key area where their involvement can contribute to striking the right balance between flexibility and credibility of commitment. Traditionally the projected cyclical position of an economy is gauged by looking at point forecasts of the output gap level. However large output gap revisions are found to be both frequent and asymmetric across

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[99] In simplified terms, the procedure could allow fiscal councils to request the Commission for an Article 126(3) TFUE report in case there are repeated breaches of the proposed course of fiscal policy.

[100] Article 22 of Organic Law 6/2013 already tasks AIReF with assessing the exceptional circumstances that trigger the escape clause, as currently envisaged in the Spanish fiscal framework.

expansions and recessions.[101, 102] Relying on real GDP growth forecasts is not likely to improve the accuracy in estimating the cyclical position. In fact, it is found that output gap revisions – both in levels and changes – are mainly driven by GDP growth forecast errors rather than potential GDP growth revisions (Hernández de Cos et al, 2016). This implies that fiscal policy should be evaluated in the context of a distribution of forecasts that accounts for uncertainty.

In particular, the activation of the escape clause could take into consideration the probability of recession according to AIReF's Markov-Switching Autoregression model.[103] This model – which characterizes the business cycle through a binary state variable – provides with the probability of recession in the next quarter. Its ability to anticipate cyclical upswings and downturns is very strong as shown in the figure below. A sufficient condition for the triggering of the clause could be that AIReF's MS-AR model yields a 100% probability of recession for two consecutive quarters. Over the past, this criterion would have resulted in the triggering of the escape clause in the period 1992-1993 and 2009-2013. Looking at the evolution of government revenues can also provide additional real-time information. Actually, the year 2008 provides interesting insights in this respect: while a sharp contraction in general government revenues started to become apparent already in the second quarter of 2008, the MS-AR model would not have flashed a particularly high probability of recession at the time. That would have changed drastically in the third and fourth quarter of 2008, allowing the triggering of the clause for the year 2009.

**Figure 5.** Probability of recession (%)
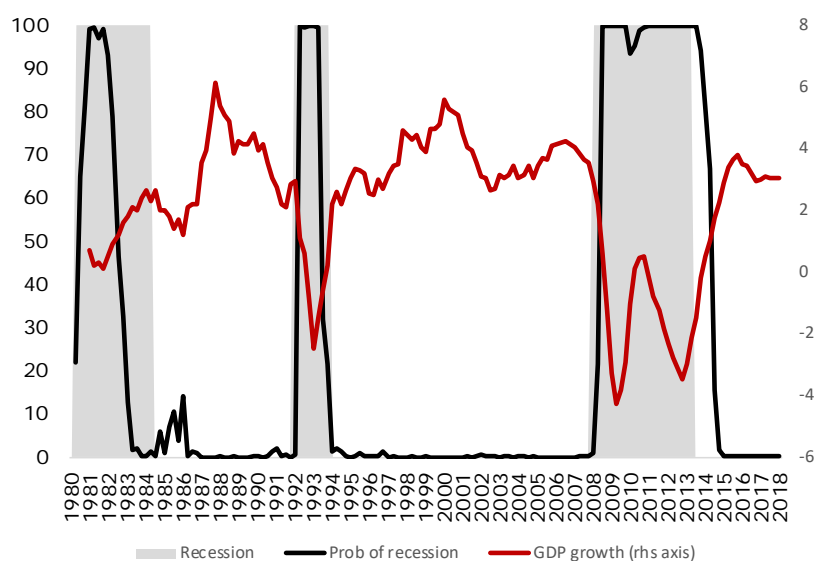
Source: AIReF and INE
Note: shaded areas represent periods of economic recession in Spain according to the Economic Cycle Research Institute (ECRI)

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[101] Hernández de Cos et al (2016) find that real-time output gap estimates are downward-biased during expansions but upward-biased during recessions.
[102] Linking the trigger of the escape clause to a certain level of the output gap can introduce large instability in the framework's results. See section 6.2 and Annex 2 for further details.
[103] See Cuevas and Quilis (2017)

Figure 6. General government revenues (% var)
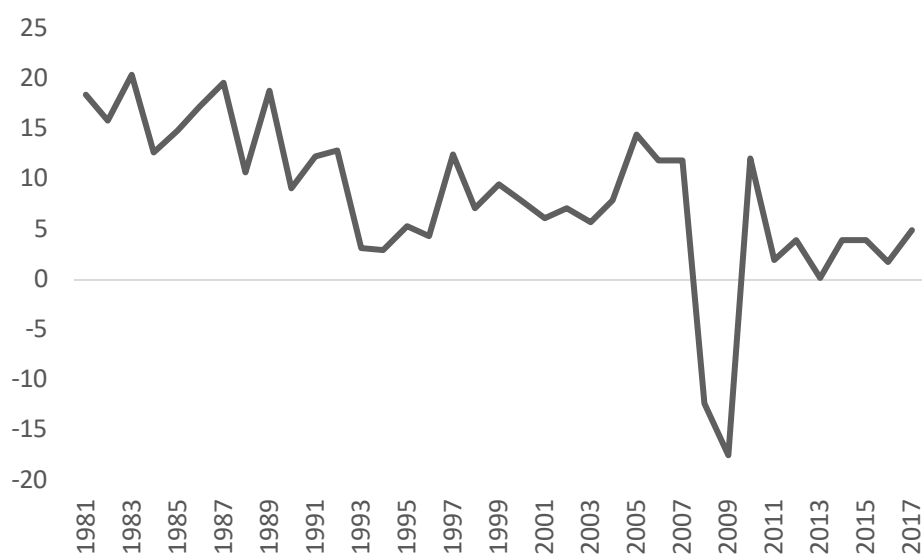
Source: AEAT

The allowance

The magnitude of the allowed fiscal response to the shock should be decided upon on a case by case basis. First, the fiscal allowance should depend on the type of shock that triggered the escape clause. In the event of a natural catastrophe for instance, it could be sufficient that the deviation with respect to the general rule merely allows the country to accommodate the event's temporary budgetary impact. Conversely, in case of an acute economic recession a more decisive fiscal impulse could prove necessary. In any case, the size of the allowed fiscal impulse should also depend on the country's underlying budgetary position, i.e. its available fiscal space.

It is possible to accommodate the escape clause within the general expression of the fiscal framework. Taking into account the main equations instrumental to derive the fiscal effort, activating the escape clause would be equivalent to exceptionally modifying the intermediate target for a given year. Depending on the magnitude of the allowance, the resulting fiscal effort could be neutral, expansionary or still contractionary. The escape clause should be triggered for a period of just one year at once. Nevertheless, it should be possible to trigger it for several consecutive periods on a yearly basis should the conditions that determine its activation persist.

$$IT_t^{escape\ clause} = PBN + \ \varepsilon * OG_{t,t+4} - allowance$$

$$FE_t^{escape\ clause} = IT_t^{escape\ clause} - PB_t$$

Return to full observance of the rules

The procedure to be followed in reestablishing fiscal discipline should be clearly established. If the proposed fiscal rule is to be restored after the escape clause has been triggered, the process and criteria governing those circumstances should be specified. Since the seminal work of Brainard (1967) the literature generally finds that abrupt policy reversals should be avoided in a context of marked uncertainty – which often prevails in the event of large negative shocks. This may be an argument for attenuated policy responses in the aftermath of a severe recession (see for instance Williams, 2013). Thus, it is proposed that the independent fiscal council retain the discretion of modulating the requirement resulting from the general framework in the year after the triggering of the escape clause.

4. Counterfactual analysis: a pseudo real-time application for Spain

4.1. Lessons from Spain's past

It is widely acknowledged that, during the first years of the 2000s, Spain's fiscal stance aggravated the macroeconomic imbalances that built up during that period. Recent estimates indicate Spain's positive output gap rapidly widened in the first half of the 2000s until it reached a maximum of 5.6% in 2007. At the same time Spain's private debt and current account deficit rose sharply. AIReF's bottom-up estimates of the fiscal stance indicate that expansionary measures cumulatively amounting to around 9% of GDP were taken in the period 2001-2008.

This partly related to wrong output gap estimations at the time. Current output gap estimates suggest the structural deficit was hovering around 2% for the most part of the period 2000-2007. Thus, with the structural balance below Spain's MTO, an effort should have been required. Instead, real-time estimates wrongly pointed to a moderate structural surplus for those years. The MTO was persistently perceived to be overachieved.

While the expenditure benchmark partly solves this by measuring the fiscal effort with a more observable indicator, it is unlikely that it would have resulted in a more countercyclical policy at the time. The expenditure benchmark would have shown that fiscal policy was being lax and procyclical instead of neutral or even restrictive as perceived then. However, it is highly unlikely that it would have resulted in a more countercyclical fiscal policy. Given that the level of the structural balance was persistently perceived to overachieve the MTO, the expenditure rule would have been suppressed at least until the structural surplus was estimated to decline to the MTO level. Government expenditure would thus have been allowed to grow above the economy's medium-term potential performance resulting in a deterioration of the underlying fiscal position.

Any rule that sets the magnitude of fiscal policy changes by comparing a target value for the structural balance with its projected level risks delivering wrong policy advice. It also risks distorting the overall discussion around fiscal policy, which should focus on the policies implemented rather than on technical aspects related to the estimation of unobservable variables. This has frequently been the case in the past. A similar problem may face us in the new cycle.

Drawing lessons from the past includes rethinking what is achievable in terms of levels of some fiscal variables. Government debt reached a minimum of 36% of GDP in Spain in 2007, after seven years of primary surpluses amounting to between 2% and 3% of GDP. Later events proved that this was not enough. While any framework that asked for higher primary surpluses would have been considered excessively restraining at the time, the extra buffers would have come in useful some years down the line.

AIReF's goal is to anchor the fiscal framework in a way that, first, helps avoid another round of procyclical fiscal policies and, second, sufficiently reduces debt levels. The abrogation of the Excessive Deficit Procedure together with improved economic prospects can easily lead to procyclical fiscal policies which Spain cannot afford, now less than ever. Spain's economy has proven to be fairly volatile, so there is an impending need to build enough fiscal buffers before the next shock hits again.

4.2. Central simulation: 2000-2018 illustration

Taking 2000 as the starting point, four rounds of four years each are simulated. The intermediate primary balance target for each round is derived adjusting the primary balance norm for an estimation of the cyclical component. For each round:

- the nominal interest and GDP growth rates assumptions are those of the long run (i.e. 4.5 and 4% respectively).[104]
- the long-run debt target is set at 60% of GDP, in line with the requirements of the Stability and Growth Pact. A horizon of 15 years is considered in each round, consistent with the anchoring of the framework to a long-term prudent debt level. This does not imply that the attainment of prudent debt levels is permanently postponed into the future. Rather, it allows fiscal policy to be set in a smooth way bearing in mind both its medium- and long-term implications.
- the cyclical component is calculated taking a budgetary semi-elasticity of 0.5 and taking the real-time output gap estimations for the four-years period.

The fiscal effort for year *t+1* is calculated by comparing the intermediate primary balance target with the real-time projection for the no-policy-change primary balance in year *t+1*, within the absolute limits of 1 and 0%. All measures are assumed to be taken on the expenditure side for the sake of simplicity.

Until 2009 the framework would have set a maximum annual nominal growth rate for expenditure of around 6% on average, compatible with a neutral fiscal policy stance. This compares to an observed average growth rate of 8% over the same period. Considering both the revenue and expenditure side, expansionary measures amounted to 9% of GDP cumulatively between 2001 and 2009. This simulation was deliberately done without including any lower limit for debt levels. The aim was to see how debt levels would have evolved had fiscal policy been neutral in the first years of the 2000s and how these buffers would have played later during the crisis period. Table 4 illustrates how the requirements would have been set for each round.

It is assumed that the fiscal council would have triggered the escape clause in 2009 and 2010 allowing for expansionary fiscal measures amounting to about 1% of GDP each year. This would have resulted from a yearly assessment of the magnitude of the negative shock and taking into account that the intermediate target at the time was persistently below the real-time no-policy-change baseline projections for the primary balance. Since deficit would have become larger than 3% of GDP in 2010 it is assumed that no further expansionary measures are taken thereafter. Instead the yearly fiscal effort is set at 0.5% of GDP (which is the minimum required for countries in the corrective arm) until the government deficit is brought back below 3% of GDP. This only happens in 2017.

Debt would have gone down to reach a minimum of around 12% of GDP in 2008, compared to the 36% minimum that was actually reached in 2007.[105] Drawing lessons from the past includes rethinking what is achievable in terms of levels of some fiscal variables. Government debt reached a minimum of 36% of GDP in Spain in 2007, after seven years of primary surpluses amounting to between 2% and 3% of GDP. Later events proved that this was not enough. While any framework that asked for higher primary surpluses would have been considered excessively restraining at the time, the extra buffers would have come in useful some years down the line.

Under the proposed framework debt would have reached a peak of 60% of GDP in 2016 before starting to decline in 2017. [106] The neutral fiscal stance at the beginning of the 2000s, coupled

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[104] These assumptions are standard and conservative, since the snowball effect is assumed to be negative. They also reinforce the internal consistency of the framework. Since they play a crucial role in the way the intermediate target is linked to the final target, it is generally preferable that they are set to their long-run reference level.

[105] Including the stock-flow adjustments that occurred throughout the period considered.

[106] First, the observed series for the main fiscal and macro variables are stripped of the impact of AIReF's bottom-up estimation of the implemented fiscal measures. These series constitute the baseline for the exercise. Second, the fiscal shocks stemming from the proposed framework are simulated as working on top of the baseline dynamics.

with the revenue windfalls that materialized at the time, would have led to large budgetary surpluses and very low debt levels. In turn, real GDP growth would have been lower until 2013. It is assumed that the large fiscal buffers accumulated until 2008 would have resulted in less drastic consolidation measures thereon. Consequently, real GDP would have decreased less than it actually did in the second half of the period considered. Some adjustment would have been in any case necessary to reduce deficit levels below 3% of GDP.

Results show that even though unexpected events unfolded and real-time output gap estimations were flawed, the framework consistently provided for reasonable fiscal policy recommendations. Applying the framework would have been compatible with maintaining a broadly neutral structural budgetary situation throughout the period 2001-2008. It is interesting to note that, while targeting a specific level of the structural balance would have led to procyclical loosening during that same period – since the structural balance was perceived to overachieve the MTO –, constraining the rate at which net expenditure could grow to the potential performance of the economy would have resulted in Spain maintaining a balanced-budget MTO. Paradoxically, the yearly pursuit of that specific result – with the structural balance as reference and benchmark – can result in a departure from it.
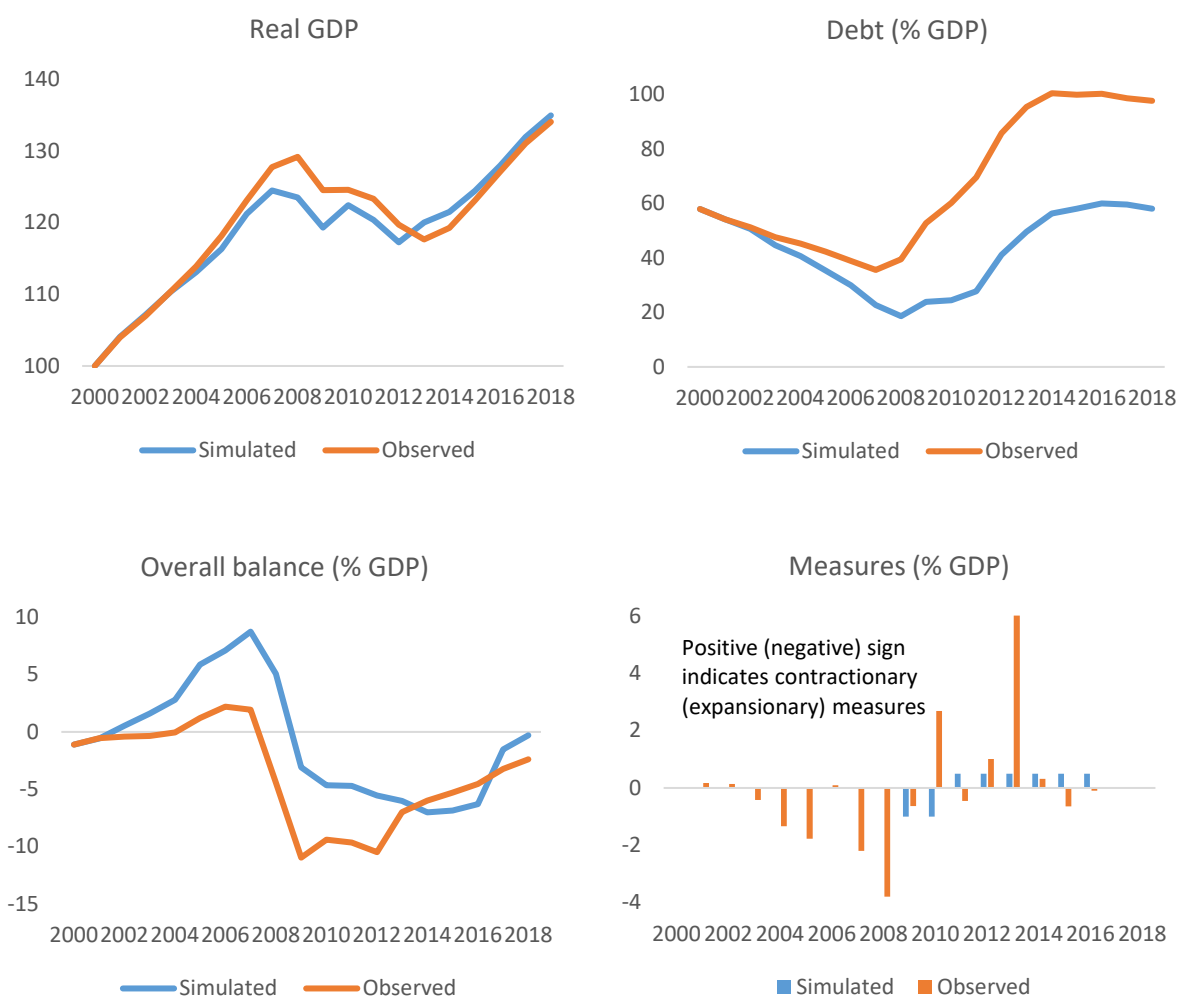

Fiscal multipliers are conservatively assumed at 0.5 and 0.7 for the periods 2001-2009 and 2010-2017 respectively. These multipliers play a role both in the computation of the baseline and the effect of the fiscal shocks. Larger multipliers would slightly decrease the level of simulated real GDP and increase the debt ratio in the first half of the period and viceversa in the second half. For instance, multipliers of 0.7 and 1.1 for the periods 2001-2009 and 2010-2017 respectively would yield a minimum simulated debt ratio of 20% in 2008 and a maximum of just above 60% in 2016. Anyhow the impact is reduced.

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Table 4. Real-time setting of requirements for the sub-periods 2001-2004, 2005-2008, 2009-2012, 2013-2016 (assuming all requirements are delivered)

1st round	2000	2001	2002	2003	2004	(...)	2015	Average
TARGETS								
Starting debt level and final target (% GDP)	58,0						60,0	
Nominal growth assumption								4,0%
Nominal interest rate assumption								4,5%
Number of periods								15
Primary balance norm (% GDP)		0,1	0,1	0,1	0,1			0,1
given that the cycle is expected to contribute by... (pp GDP)		0,6	0,2	-0,2	-0,5			0,0
Intermediate primary balance target is (% GDP)		0,1	0,1	0,1	0,1			0,1
BASELINE REAL TIME PROJECTIONS (no-policy change)	2000	2001	2002	2003	2004			
OG		1,4	0,4	-0,6	-1,2			
Primary balance (% GDP)		2,6	2,6	2,4	2,1			2,4
Interests (% GDP)		2,9	2,7	2,5	2,5			
Overall balance (% GDP)		-0,3	-0,1	-0,1	-0,3			
Fiscal Effort		0,0	0,0	0,0	0,0			0,0
Maximum growth for net expenditure		5,5	5,6	5,5	5,7			

2nd round	2004	2005	2006	2007	2008	(...)	2019	Average
TARGETS								
Starting debt level and final target (% GDP)	40,2						60,0	
Nominal growth assumption								4,0%
Nominal interest rate assumption								4,5%
Number of periods								15
Primary balance norm (% GDP)		-1,1	-1,1	-1,1	-1,1			-1,1
given that the cycle is expected to contribute by... (pp GDP)		0,2	-0,2	-0,1	0,0			0,0
Intermediate primary balance target is (% GDP)		-1,2	-1,2	-1,2	-1,2			-1,2
BASELINE REAL TIME PROJECTIONS (no-policy change)	2000	2005	2006	2007	2008			
OG		0,8	-0,5	-0,3	-0,1			
Primary balance (% GDP)		2,5	2,2	2,6	2,7			2,5
Interests (% GDP)		2,0	1,7	1,4	1,3			
Overall balance (% GDP)		-0,3	-0,1	-0,1	-0,3			
Fiscal Effort		0,0	0,0	0,0	0,0			0,0
Maximum growth for net expenditure		6,2	6,1	6,0	6,1			

3rd round	2008	2009	2010	2011	2012	(...)	2023	Average
TARGETS								
Starting debt level and final target (% GDP)	12,2						60,0	
Nominal growth assumption								4,0%
Nominal interest rate assumption								4,5%
Number of periods								15
Primary balance norm (% GDP)		-3,0	-3,0	-3,0	-3,0			-3,0
given that the cycle is expected to contribute by... (pp GDP)		-1,4	-4,5	-2,7	-3,5			-3,0
reference primary balance target is		-5,9	-5,9	-5,9	-5,9			-5,9
BASELINE REAL TIME PROJECTIONS (no-policy change)	2000	2009	2010	2011	2012			
OG		-3,0	-8,3	-4,5	-7,1			
Primary balance (% GDP)		1,0	-9,0	-7,5	-4,2			-4,9
Interests (% GDP)		1,3	1,4	1,6	1,9			
Overall balance (% GDP)		-0,3	-10,5	-9,0	-6,1			
Fiscal Effort		-1,0	-1,0	0,5	0,5			-0,3
Maximum growth for net expenditure		7,1	3,7	3,7	4,9			

4th round	2012	2013	2014	2015	2016	(...)	2027	Average
TARGETS								
Starting debt level and final target (% GDP)	32,9						60,0	
Nominal growth assumption								4,0%
Nominal interest rate assumption								4,5%
Number of periods								15
Primary balance norm (% GDP)		-1,6	-1,6	-1,6	-1,6			-1,6
given that the cycle is expected to contribute by... (pp GDP)		-4,6	-4,6	-2,2	-1,2			-3,2
Intermediate primary balance target is (% GDP)		-4,9	-4,9	-4,9	-4,9			-4,9
BASELINE REAL TIME PROJECTIONS (no-policy change)	2000	2013	2014	2015	2016			
OG		-10,4	-9,4	-4,6	-2,0			
Primary balance (% GDP)		-3,5	-4,1	-2,0	-0,5			-2,5
Interests (% GDP)		2,9	3,0	3,4	2,8			
Overall balance (% GDP)		-6,4	-7,2	-5,4	-3,4			
Fiscal Effort		0,5	0,5	0,5	0,5			0,5
Maximum growth for net expenditure		5,0	3,9	1,8	1,5			

EDP is assumed to be opened in 2011 – when the simulated government deficit would have exceeded 3% of GDP – and abrogated in 2017, when it would have gone below 3%.

Figure 7. Simulated fiscal and real variables under the proposed fiscal framework

Real GDP

Debt (% GDP)

Overall balance (% GDP)

Measures (% GDP)

Positive (negative) sign indicates contractionary (expansionary) measures

Source: AIReF

4.3. Sensitivity analyses

Experience shows that stability is a desirable feature in any fiscal framework. Generally, the annual fiscal effort is derived from the comparison of (i) a reference level for some specific fiscal variable with (ii) its projected level. Thus, the prescribed effort – and the associated path for debt and real GDP – would change if either (i) or (ii) change. Sensitivity analyses provide a reference to gauge the stability of the framework. In particular, the debt and real GDP trajectories that would have resulted from different sources of uncertainty in the framework are simulated. They are put forward in annex 2 to this working paper while table 5 below shows a qualitative summary of the analyses' main findings.

Table 5. Summarizing the sensitivity analyses' results

Main parameters of the framework					Macro-financial assumptions		Baseline projections	
Debt target	Escape clause		Limits to effort		Snowball effect	Fiscal multipliers	Output gap	Primary Balance
	Trigger	Allowance	Max	Min				
++	+	+++	+	+++	+++	+	+	+

Note: +++ represents large sensitivity; ++ represents moderate sensitivity; + represents limited sensitivity

Source: AIReF

The different sources of variation in the framework's outcomes can be grouped into three categories. The first one relates to the calibration of the parameters that delimit the fiscal framework. They include the value of the debt target (60%, higher or lower), the characterization of the escape clause and the limits to the annual fiscal effort. The second group of simulations refer to accompanying macro-financial assumptions that are plugged into the framework. While they are not part of the framework per se, they play an important role in the results attained. They include the size and magnitude of the snowball effect and fiscal multipliers. Finally, the third group of simulations try to gauge how uncertainty in the projected no-policy-change evolution of the relevant fiscal variables impacts on the prescribed fiscal effort.

Sensitivity analyses around the main parameters of the fiscal framework can help to better pin down their values. As shown in annex 2, results are most sensitive to the minimum fiscal effort and the amount of the deviation that is allowed once the escape clause is activated. Conversely, results are less sensitive to the specific value of the debt target. This confirms the need to adequately define the escape clause and effort limits.

In turn, sensitivity exercises around the macro-financial assumptions suggest the need for introducing conservative hypothesis. The variability in the debt-to-GDP trajectories is large when the snowball effect assumption is made to vary extensively. While this is not surprising given the role the snowball effect plays in the debt accumulation equation, it confirms that the assumption made on its value to derive the primary balance norm should be conservative. This notion is reinforced by the possibility of having a period of protracted growth and inflation in the future. Conversely, when fiscal multipliers assumptions are made to diverge, this introduces less variability in the results.

While assessing the latter two sources of variation can help to better underpin the fiscal framework, it is the third source of uncertainty that is relevant to gauge the stability of the proposal. In fact, once the framework is agreed upon and put in place it is likely that its parameters are left unchanged for some time at least. However, the prescribed fiscal effort would be permanently dependent on the fiscal council's yearly projections and, in particular, on its estimation of the output gap and the baseline primary balance for the following year(s). It is against these two variables that the stability properties of the framework should be assessed.

Crucially, it is found that variability in the output gap estimates does not introduce instability in the results. In fact, the simulated debt path is quite robust to changes in the output gap estimates as shown in annex 2. The largest source of instability associated to the output gap would actually stem from a mechanic activation of the escape clause – if it was to be triggered once the output gap fell below a specific threshold – , but not from the output gap estimates per se. However, if the escape clause is triggered differently as is suggested in section 4.2 above, results are fundamentally robust to alternative output gap estimates. In this same vein, the fact that the fiscal effort is constrained within two absolute limits also minimizes the instability introduced by varying the primary balance baseline projections.

5. Conclusions

Several reasons speak to the need for a careful reflection on Spain's fiscal framework. Government debt is at its historical maximum. However, lessons from both our own past and the situation in other European peers suggest that fiscal policy risks becoming procyclical again. If debt is not substantially reduced before the next crisis hits, Spain could face sustainability issues.

In this context, the on-going revision of the euro area fiscal architecture provides a window of opportunity for Spain to revise its domestic fiscal framework and gives national independent authorities (such as AIReF) a major role in its definition, geared towards increasing national ownership and fostering transparency.

Against this background, this note puts forward a proposal for a revamped fiscal framework in Spain based on two main pillars, a central spot for debt sustainability and an enhanced institutional role for the Spanish independent fiscal authority.

First, debt reduction is given a more prominent role, serving as an anchor against which to gauge developments in an intermediate target (primary balance) and a short-term operational instrument (nominal expenditure), analogous to monetary policy. Second, from an institutional point of view, the framework envisages a strengthened role for Spain's independent fiscal institution.

This framework is transparent, simple, flexible and internally consistent. It is transparent because it is based on fundamentally observable variables, easy to replicate and communicate. It is simple because it hinges upon three indicators, clearly connected to each other and distinctly placed relative to each other. It is flexible because it allows for exceptional circumstances to be taken into account. And finally, it is internally consistent because the fiscal stance is set and periodically reevaluated so that progress towards attaining the final debt target is ensured.

While the proposed framework is assessed as superior in its design, an adequate implementation will be crucial to its success. This paper proposes an enhanced role for the Spanish IFI, AIReF, in order to ex-ante limit discretionary actions from fiscal authorities and ex-post ensure correct and timely compliance with the rule.

The ex-ante credibility of the rules hinges upon limiting the areas of the framework where discretion can be exercised by the very agent subject to the rules, i.e. the government. There are four crucial aspects where a spurious exercise of discretion could undermine the whole effectiveness of the rules: (i) the assessment of the cyclical situation, (ii) the no-policy-change projections for the primary balance, (iii) the reference for the nominal medium-term potential GDP growth, and (iv) the implementation of the escape clause. One way of limiting the exercise of discretion in these areas is tasking the independent fiscal institution with their assessment.

Ex-post, the role of the fiscal council would concentrate on the assessment of compliance with the agreed course of fiscal policy by identifying slippages with respect to yearly targets and depicting their origin; i.e. whether they arise from gross policy errors or cyclical estimations. This also opens a potential complementarity between national IFIs and the European Commission surveillance, as the former could report the European Commission on the existence of gross policy errors that could endanger the sustainability of public finances.[107] This identification could be linked to the threat of an EDP opening, providing thus the necessary incentives for compliance

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[107] In simplified terms, the procedure could allow fiscal councils to request the Commission for an Article 126(3) TFUE report in case there are repeated breaches of the proposed course of fiscal policy.

Annex 1: Primary Balances and Debt Targets

The main recursive equation determining the dynamics of the debt-to-GDP ratio is:

$$b_t = \frac{1 + i_t}{1 + gn_t} b_{t-1} - p_t$$

Where:

- b_t is debt at the end of period t as a ratio to GDP at t.
- i_t is the nominal interest rate in period t; paid in period t on the debt stock outstanding at the end of t-1.
- gn_t is he nominal GDP growth rate between t-1 and t.
- p_t is the primary balance in t as a ratio of GDP at t.

Under the assumption that i_t and γ_t are constant over time ($i_t = i$; $g_t = g$) and defining

$$1 + \lambda = \frac{1 + i}{1 + gn}$$

The above equation can be simplified as follows:

$$b_t = (1 + \lambda)b_{t-1} - p_t$$

This difference equation has solution:

$$b_N = b_0(1 + \lambda)^N - \sum_{t=1}^{N}(1 + \lambda)^{N-t}p_t$$

Given an initial debt ratio (b_0) and a target debt ratio (b_N^*) to be achieved in N periods, the constant primary balance (PBN) that reaches the target debt ratio if maintained constant during periods $t = 1, \dots, N$ is the following (from the equation just above):

$$PBN = \frac{\lambda}{(1 + \lambda)^{-N} - 1}((1 + \lambda)^{-N}b_N^* - b_0)$$

Annex 2: Sensitivity Analysis

The results of different sensitivity exercises are shown in this annex. These exercises are performed around the central simulation put forward in section 6.1 above. In this sense, they show how fiscal outcomes would have varied if, assuming the proposed framework had been abided by since the year 2000, the parameters in the framework or the baseline projections had been different.

A2.1. Sensitivity to the calibration of the framework's parameters: debt target, escape clause and effort limits.

Sensitivity of the results to the final debt target is explored by making the debt anchor range between 20% and 140%. As the graph below shows this introduces some limited variability in the endpoint debt levels. In any case, debt would have been substantially lower than it is today had the framework been followed.

Figure A2.1. Sensitivity to debt target (from 20% to 140% of GDP)
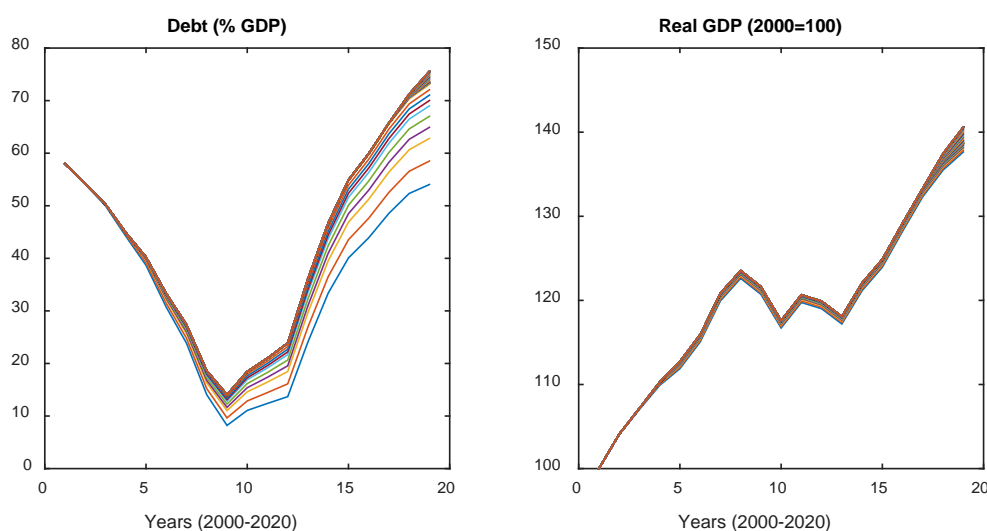
Similarly, the figure below shows the volatility of results if the trigger to activate the escape clause was related to a level of the output gap. Depending on that negative output gap threshold level (i.e. whether the escape clause triggers for wider or narrower negative output gaps) results change widely. Higher debt levels correspond to a less stringent design of the escape clause (triggered when the negative output gap is wider than -1%), while the lowest debt levels correspond to an escape clause that is more strictly defined (triggered only when the negative output gap is wider than -5%). Altogether these results suggest that the escape clause trigger should dispense of the output gap or, at least, include other indicators besides it.

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Figure A2.2. Sensitivity to the escape clause trigger (from an output gap of -1% to -5%)
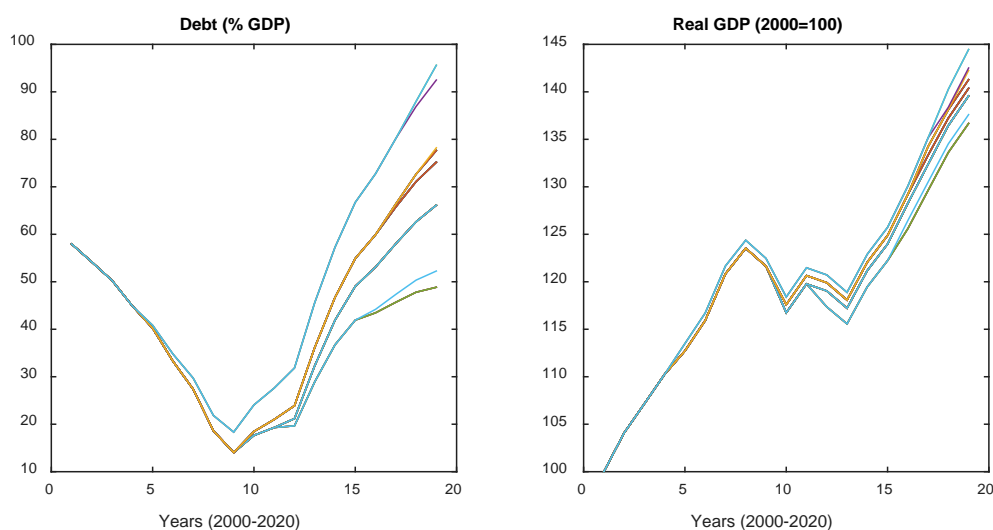
Finally, results are quite sensitive to the allowed fiscal expansion associated with the activation of the escape clause too. The graph below shows the variability of the results for an escape clause that is activated as in the central simulation (i.e. when the negative output gap is wider than -3%) but once it is triggered it allows a fiscal expansion that ranges between -4% and 0% of GDP. Logically results only change for the second half of the period when the escape clause would have been activated.

Figure A2.3. Sensitivity to the escape clause allowance (an annual expansion from 0% to 4% of GDP)
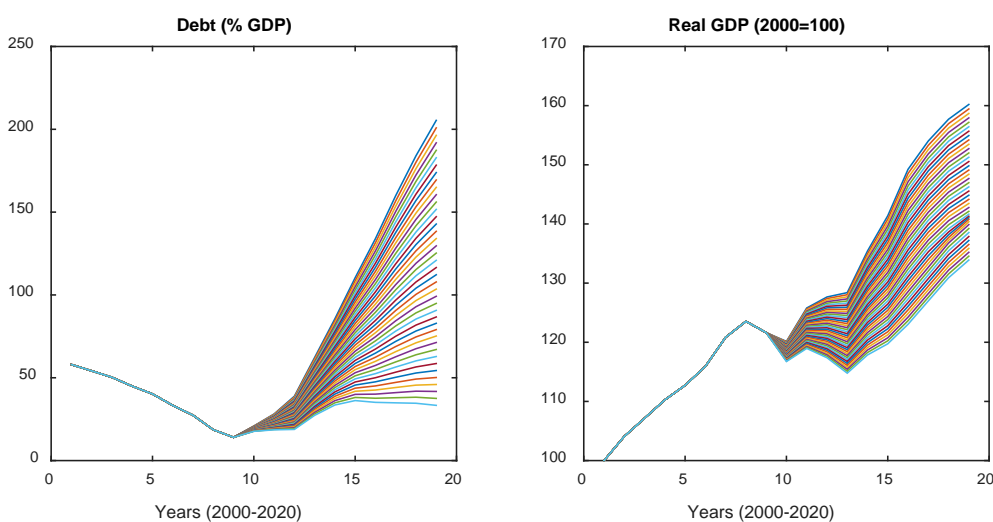
Finally, the maximum and minimum annual effort are made to range widely in this sensitivity exercise. While they were respectively set at 1% and 0% of GDP in the central simulation presented in section 5.1, they are made to vary between 3% and -3% now. Figure A3.4 below shows that during this particular period results are not sensitive to raising the maximum fiscal effort above 1%. This is because the difference between the baseline primary balance and the primary balance target never exceeded 1% of GDP during the period considered so, in fact, the upper limit to the fiscal effort was not binding.

Conversely, results change drastically when the minimum effort is lowered. This is relevant for those years when the baseline primary balance exceeded the primary balance target. Lowering the minimum effort implies that expansionary measures would have been allowed in those years. If so, the fiscal buffers built up during the expansionary phase of the cycle would have been insufficient. The larger the allowed expansion the higher debt would have been at the turning point of the cycle. With no fiscal buffers, debt would have exploded thereafter.

Figure A2.4. Sensitivity to maximum fiscal effort (up to 3% of GDP)
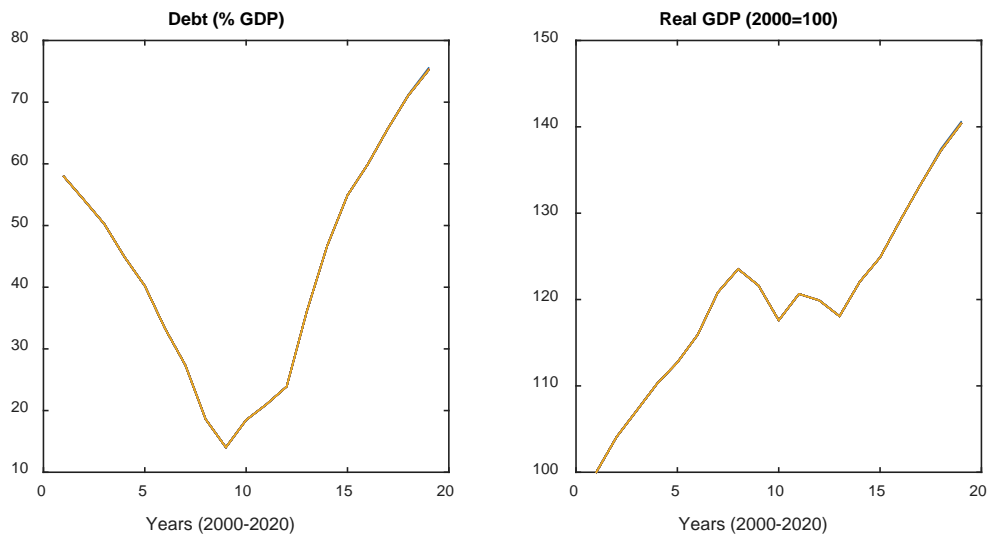
Figure A2.5. Sensitivity to minimum fiscal effort (from 0% to -3% of GDP)
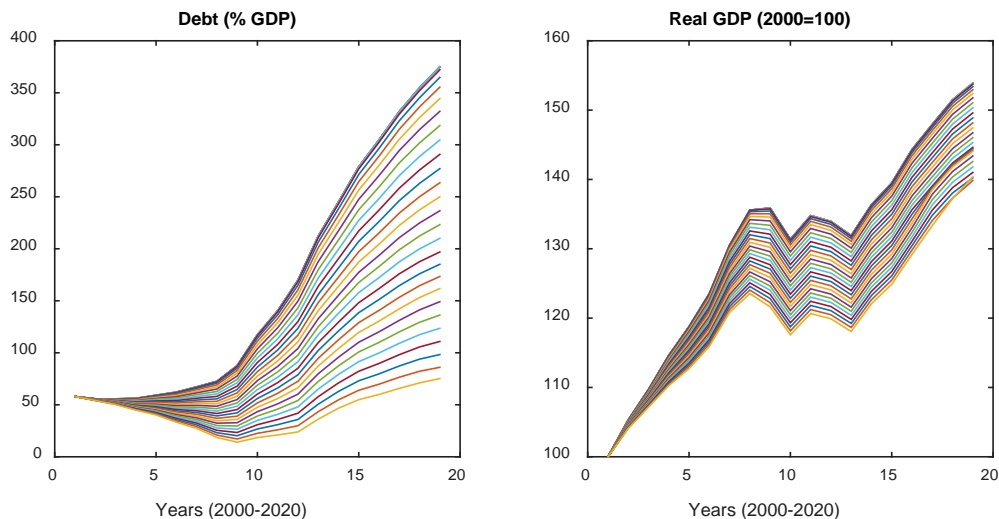
A2.2. Sensitivity to accompanying assumptions: snowball effect and fiscal multipliers.

The projected nominal GDP growth and interest rates play a crucial role in the framework, insomuch as they determine the constant primary balance that hits the debt target in a given time horizon. While prudent assumptions underlie the central simulation (i.e. an overall negative snowball effect amounting to 0.5%) a scenario of protracted inflation and real growth is not unthinkable, particularly when conducting simulations over long time spans. Analogously, nominal GDP growth could surprise on the up side registering higher rates than nominal

interests. Figures below show how debt-to-GDP and real GDP would have evolved since 2000 for different assumptions on the sign and magnitude of the snowball effect.[108] This is compared to observed values, represented by the black thick line.

Very favorable snowball effects would have dropped the debt ratio to negative values, given that this simple version of the framework does not allow for expansionary policies except when output gaps are negative and large (i.e. when the escape clause is triggered). The favorable snowball effect along with the primary surpluses obtained thanks to cyclical developments and revenue windfalls would have sharply reduced debt ratios. On the other end of the snowball effect spectrum, debt would have declined at a slower pace until 2009 and would have increased at a faster pace thereafter. In any case its level would have been substantially lower than it is now.

Figure A2.6. Sensitivity to snowball effect assumptions
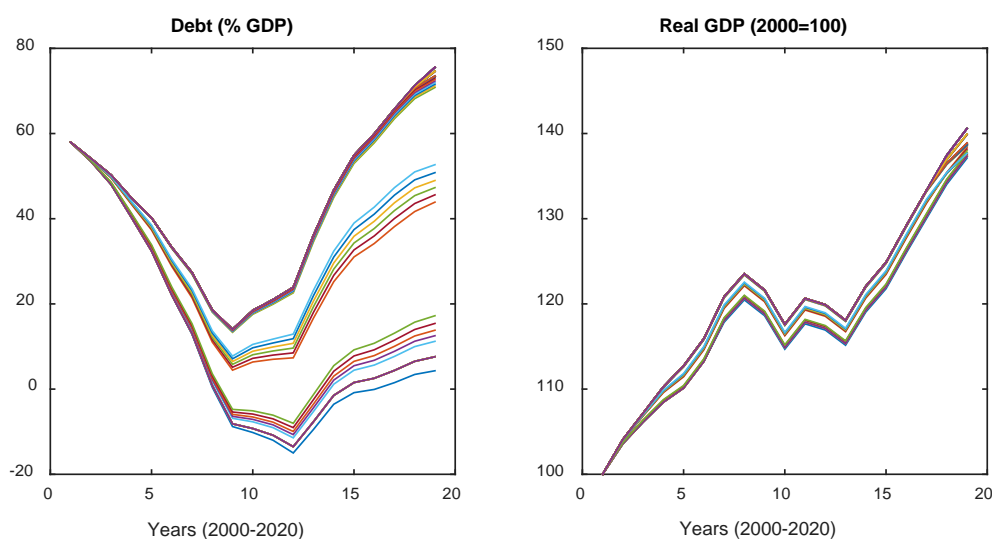
Fiscal multipliers assumptions play an important role too when it comes to simulate the effects of fiscal policy on macro variables. Sensitivity of the results to these assumptions is checked by making their value range between -1% and 2%, both during booms and busts. While simulated real GDP values show some variability connected to the change in the multiplier, the simulated debt paths are less sensitive to changes in those assumptions.

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[108] Simulations are run for eleven different assumptions on nominal GDP growth rates, ranging from -3% to 7% and taken every 1pp. For each of these eleven assumptions on nominal GDP growth rates, eight different values of nominal interest rates are simulated, ranging from 0% to 7% and taken every 1pp. Thus, debt ratio and real GDP trajectories for eighty-eight different snowball effect assumptions are simulated.

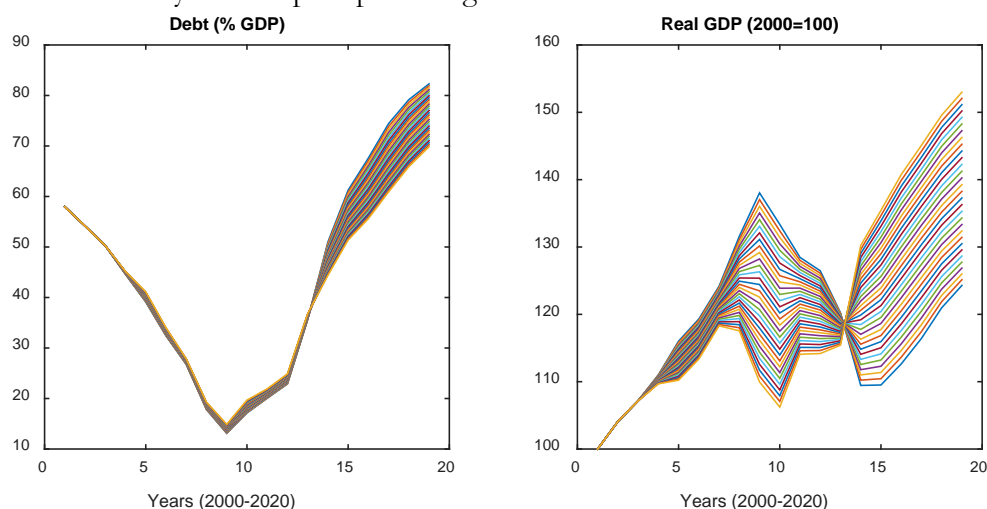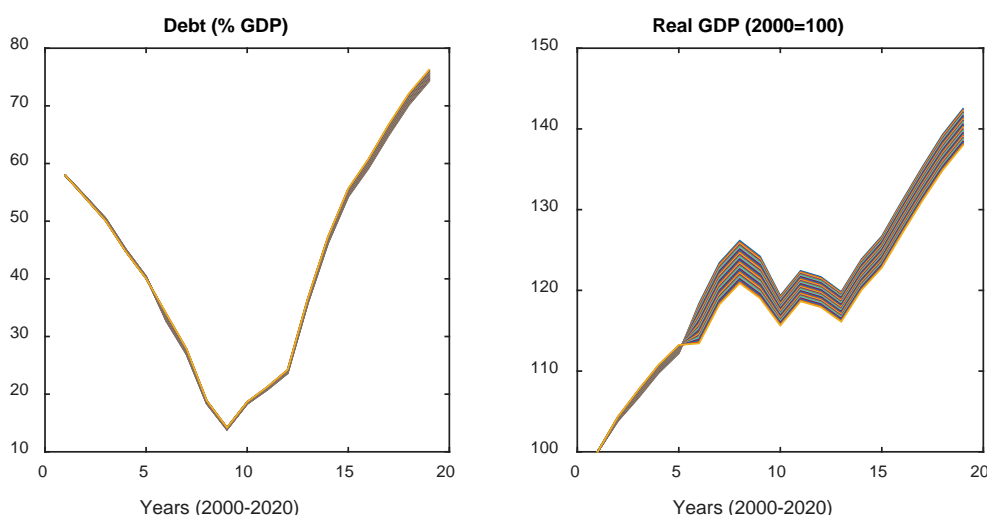**Figure A2.7.** Sensitivity to multiplier prevailing in recession

Figure A2.8. Sensitivity to multiplier prevailing in expansions

A2.3. Sensitivity to baseline projections: output gap and primary balance

Volatility in the estimations of the output gap is a source of potential problems in the operation of the fiscal framework. While dispensing of cyclical estimations altogether may not be advisable, it is important to test the robustness of the framework to the output gap projections since they can show high volatility. Even if the primary balance norm changes with the change in the projected output gap, the actual fiscal effort to be implemented each year is not as volatile.

The graphs below show the debt and real GDP trajectories for different values of the output gap projected for the period t+1 to t+4.[109] In fact, the main difference across the simulations with varying output gap estimates stems from the triggering of the escape clause. Substantial underestimations of the output gap with respect to current estimates would have resulted in the activation of the escape clause for more years and thus lead to higher debt than yielded by the central simulation in section 5.1. If the escape clause is suppressed (to gauge the volatility arising just from the output gap estimates) the difference across the alternative debt paths is much less

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[109] For each year simulations are run for 8 different values of the output gap. These are obtained by adding to the real-time output gap estimate (which is the one underlying the simulations in section 5.1) a parameter ranging from -2 to +2 and taken every 0.5 pp.

noticeable. Debt levels would have been substantially lower had the escape clause not been activated at the worst of the recession.

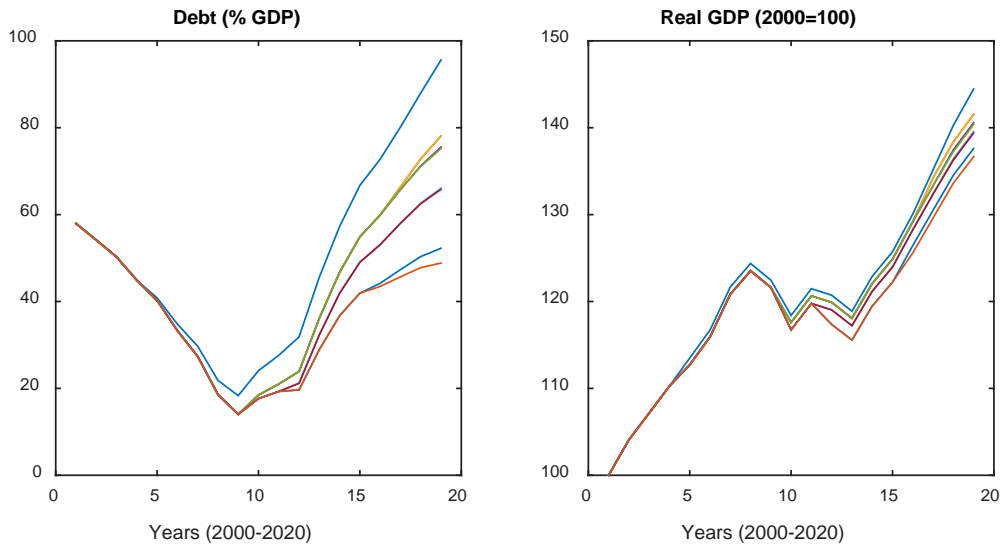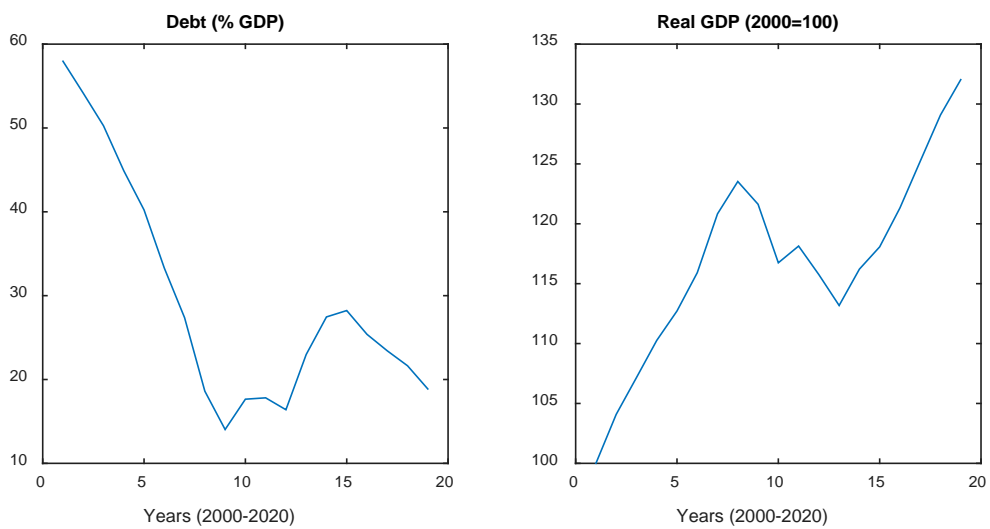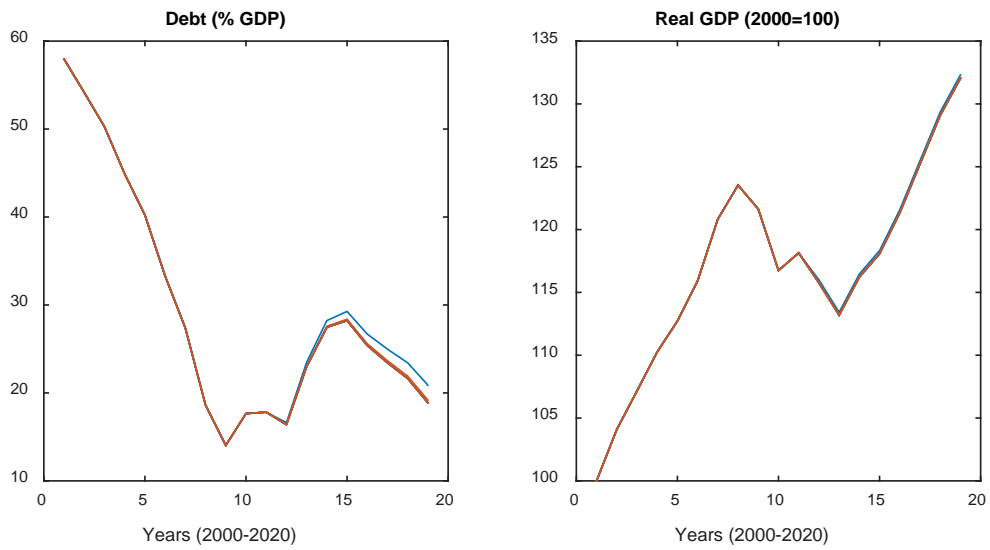**Figure A2.9.** Sensitivity to estimated output gap (with an active escape clause)

Figure A2.10. Sensitivity to estimated output gap (suppressing the escape clause)
**A2.10.a)** Baseline simulation suppressing the escape clause

A2.10.b) Varying the estimation of the output gap and suppressing the escape clause

Finally, the figure below shows that the simulated debt path is fairly robust to changes in the baseline projections for the primary balance.[110] In this case, the fact that the fiscal effort is constrained within the values of 0% and 1% minimizes the variability in the growth of net expenditure.

Figure A2.11. Sensitivity to primary balance baseline projections

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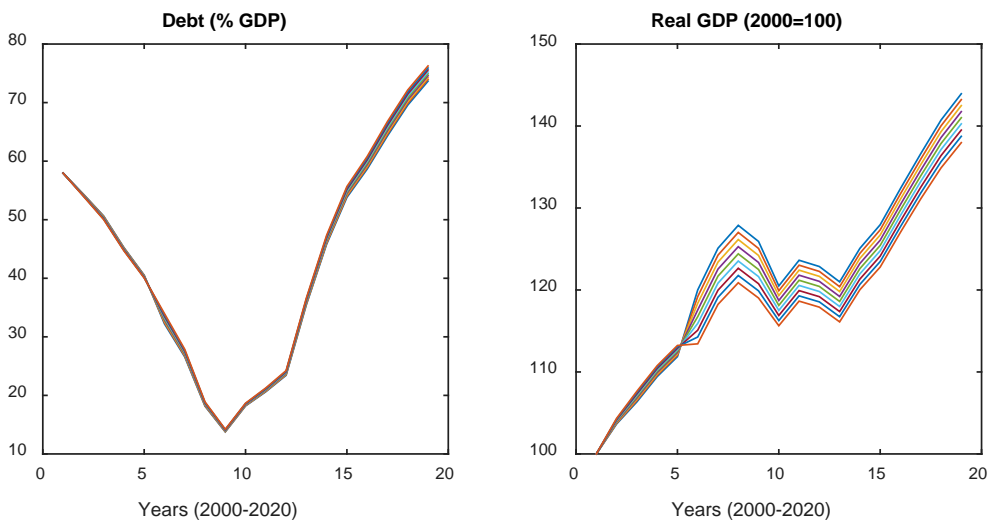
[110] Again, for each year simulations are run for 8 different values of the baseline primary balance. These are obtained by adding to the real-time primary balance estimate (which is the one underlying the simulations in section 5.1) a parameter ranging from -2 to +2 and taken every 0.5 pp.

Annex 3. Optimizing annual efforts

The framework above suggests the annual fiscal effort should be capped by a maximum and a minimum level. They are ad-hoc set to 1% and 0% of GDP. Without them, the algorithm to determine the annual effort can produce incongruous results from an economic or political economy point of view (or both). Different criteria can introduce the indispensable rationale, illustrating what is feasible or economically meaningful.

While such limits on the annual fiscal effort are common and necessary, is important to avoid arbitrariness. Past evidence on the primary surpluses Spain and its peers have been able to sustain over a certain period can provide more granularity on the setting of these limits. In the EU context, the maximum annual primary surplus attained over the past two decades was registered in Finland in 2000 at just below 10% of GDP. Since 1995 six countries have managed to sustain primary surpluses above 5% of GDP on average for at least four years (LU, SE, IT, IE, BE and FI). In the case of Spain, while its maximum primary surplus was reached in 2006 at 3.8% of GDP, an average primary surplus of 2% of GDP was maintained for nine consecutive years (1999-2007). These references, by providing a benchmark for the maximum level of the intermediate target, can in turn be translated into a maximum annual fiscal effort that is feasible.

A formalized approach, pivoting around an optimization framework, can introduce further richness in the determination of such limits. On the one hand, primary surpluses help decline governments' liabilities; on the other hand, they also tend to reduce GDP growth and thus have an adverse denominator effect. More robustness can be brought into the framework by trying to endogenously identify the annual fiscal effort beyond which the second effect prevails over the first.

The trade-off between growth and sustainability is made explicit by obtaining the optimal fiscal effort that maximizes cumulated GDP growth subject to the attainment of a debt target. Real GDP growth (g_t) is defined as a function of trend growth ($gpot_t$) and fiscal variables, including the stock of debt (b_t) and its square value (to cover for non-linearities or debt thresholds) as well as the control variable, defined as the fiscal effort (FE_t). The maximization problem is subject to three restrictions. The first one is the debt accumulation equation, with a snowball effect depending on nominal growth (gn_t) as well as nominal interest rates (i_t). The second one sets out the change in the primary balance ($pb_t - pb_{t-1}$), which is explained by its cyclical component defined as a function of the output gap ($\varepsilon * OG_t$) and the structural primary balance (previous year structural primary balance plus current effort, $spb_{t-1} + FE_t$). The third restriction states the threshold for the debt level, which is set at 60%, following the SGP framework. Growth is maximized subject to a sustainable debt path, allowing for a joint determination of the optimal effort and the cut-off period when the debt limit is achieved (end-point).

$$\max_{FE_t} g_t^T = c + gpot_t + \alpha b_t + \beta b_t^2$$

$$s.t. \quad \begin{cases} \Delta b_t = \frac{i_t - gn_t}{1 + gn_t} b_{t-1} - pb_t + sfa_t & (1) \\ pb_t = pb_{t-1} + \varepsilon * OG_t + spb_{t-1} + FE_t & (2) \\ b_T \leq 60\% & (3) \\ g_t^T = \sum_{i=t}^{T} g_i & (4) \end{cases}$$

The optimization program above, captures the tangled relationship between fiscal effort, debt levels and growth. On the one hand, implementing a larger effort leads to more favorable primary balances and a faster decline in the outstanding liabilities held by the general government

(equations (2) and (1)). On the other hand, assuming a positive multiplier, larger fiscal efforts lead to lower real GDP levels, as made evident in the objective function. In terms of the debt ratio, the implementation of any fiscal effort introduces sign changes in the same direction in both the numerator and denominator. Moreover, maintaining high debt levels for a long period of time can also be costly in terms of real growth. In fact, the literature on debt threshold tries to identify the levels of debt beyond which real GDP growth tends to slow down. Conclusive evidence for a debt threshold in Spain is generally not found. However, Andrés et al (2017) find that the 60% debt threshold is a prudent one, in the sense that is consistent with market expectations as measured by the sovereign yield spread. It is also the regulatory debt threshold as enshrined in the Stability and Growth Pact and the national legislation. In this vein, the debt coefficients in the objective function above are calibrated assuming the 60% of GDP threshold. Given current conditions in Spain, with debt levels at roughly 100% of GDP and under conservative assumptions, the optimal annual effort is found at 0.5% of GDP.[111] Figure 3 represents the comparison for the optimization results yielding also different arrival points (T) for the debt threshold to be obtained. The final dates range from 2024 to 2044 and each one is associated with the effort level (FE*) that brings debt down to 60% by that date. Figure 5 represents the fiscal effort-end point combinations. The optimal effort results in the one yielding the maximum cumulated growth over the next 10 years. It is found that an annual effort of 0.5% of GDP would maximize cumulated growth over the next decade and bring debt back to the 60% of GDP threshold in 2030. Moreover, interestingly, the inverted U-shape describing the relationship between effort and growth is asymmetric. Both very much frontloaded or backloaded adjustments are detrimental for growth. However, while postponing the attainment of the debt target by just one year yields substantially higher growth rates in the short term, the growth loss associated to delaying it one year after 2030 is smaller by comparison.

Figure 5. Cumulated GDP growth over the period 2017-2027 depending on the year when the 60% debt ratio is reached
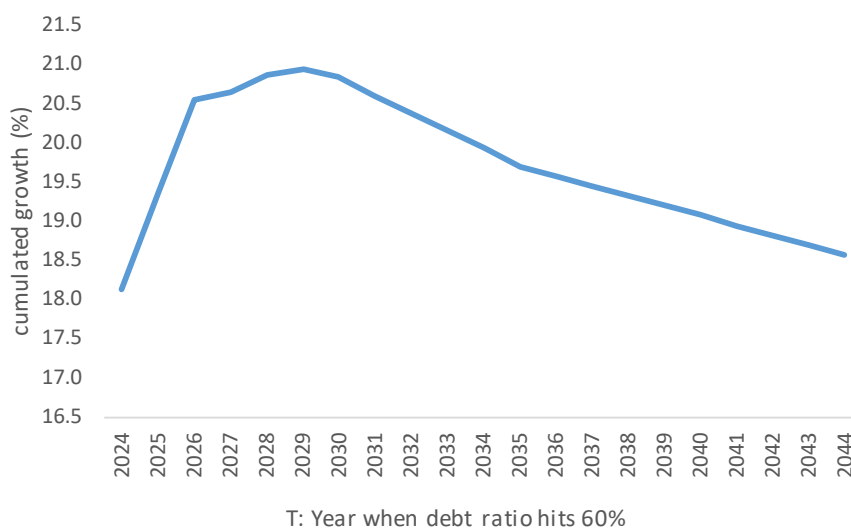
The optimal effort is ultimately dependent on the assumption on potential growth. As a policy conclusion, it should be noted that higher potential growth figures allow attaining the 60% debt level by 2030 with substantially lower fiscal efforts. As can be seen in Table 2, results above are dependent on the main determinants of the objective function and, crucially, the optimal effort is

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[111] Inflation and interest rates are assumed at 1.8% and 4.5% respectively. Following the literature on the estimation of the impact of debt on GDP growth and assuming a 60% debt threshold the α and β coefficients in the objective function are estimated at 0.03 and -0.0003 respectively, with a constant of around -0.7. The fiscal multiplier is set at 0.8 as resulting from the literature. See for instance Hernández de Cos et al. (2015) or De Castro and Hernández de Cos (2008). Finally, trend growth is assumed to converge to 1.5%.

negatively related with the assumption on potential GDP growth as shown in the table below. Interestingly, the optimal end-point is very stable and located around 2029-2030 irrespective of the potential growth assumptions. While the year when the 60% debt threshold is hit varies very little, the magnitude of the effort needed to attain it changes considerably. This exercise yields interesting policy insights by linking structural reforms which yield higher potential output with lower fiscal adjustment towards stabilization.

Table 2. Optimal annual effort for different potential growth assumptions

Potential growth (% var)	Optimal effort (% GDP)	Date when debt reaches 60% of GDP
0.5	0.76	2028q4
0.75	0.72	2028q4
1	0.68	2029q1
1.25	0.64	2029q1
1.5	0.58	2029q2
1.75	0.52	2029q3
2	0.5	2029q3
2.25	0.46	2029q3
2.5	0.4	2030q3

References

Andrés, J., J. Pérez and Juan A. Rojas (2017) "Implicit Public Debt Thresholds: An Empirical Exercise for the Case of Spain". Documentos de Trabajo Nº 1701, Banco de España.

Beetsma, R., X. Debrun, (2016) "Fiscal Councils: Rationale and Effectiveness", IMF Working Paper 16/86.

Beetsma, R., X. Debrun, X. Fang, Y. Kim, V. Duarte Lledo, S. Mbaye and X. Zhang (2018) "Independent Fiscal Councils: Recent Trends and Performance", IMF Working Paper 18/68.
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.

Bindseil, U. (2004) "The Operational Target of Monetary Policy and the Rise and Fall of Reserve Position Doctrine", Working Paper Series No. 372/ June 2004, European Central Bank.

Brainard, W. (1967) "Uncertainty and the Effectiveness of Policy," American Economic Review, 57, 411-425.

Calmfors, L. (2015) "The roles of Fiscal Rules, Fiscal Councils and Fiscal Union in EU Integration", IFN Working Paper No. 1076, 2015.

Calmfors, L. and S. Wren-Lewis (2011) "What should fiscal councils do?", CESifo Working Paper Series 3382, CESifo Group Munich.

Carnot, N. (2014) "Evaluating fiscal policy: a rule of thumb", Economic Papers 526 | August 2014, European Commission.

Caselli, F., L. Eyraud, A. Hodge, F. Diaz Kalan, Y. Kim, V. Lledó, S. Mbaye, A. Popescu, W. Heinrich Reuter, J. Reynaud, E. Ture, and P. Wingende (2018). "Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability". IMF Staff Discussion Note, SDN/18/04, International Monetary Fund, Washington D.C.

Cuevas, A. and E. M. Quilis (2017) "Modelización no lineal del PIB de España". Documento de Trabajo DT/2017/1, Autoridad Independiente de Responsabilidad Fiscal.

European Commission (2010) "Public Finances in EMU – 2010", European Economy 4. June 2010. Brussels.

Eyraud, L, X Debrun, A Hodge, V Lledó, and C Pattillo (2018a), "Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability", IMF Staff Discussion Notes 18/04.

Eyraud, L., V. Duarte Lledó, P. Dudine and A. Peralta (2018b) "How to Select Fiscal Rules. A Primer", How to notes, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

Hernández de Cos, P., A. Lacuesta, and E. Moral-Benito (2016) "An Exploration of Real-Time Revisions of Output Gap Estimates Across European Countries", Occasional Paper No 1605, Banco de España.

Kopits, G. and S. Symansky (1998) "Fiscal Policy Rules". IMF Occasional Paper 162, International Monetary Fund, Washington D.C.

Kumar, M., E. Baldacci, A. Schaechter, A., C. Caceres, D. Kim, X. Debrun, J. Escolano, J. Jonas, P. Karam, I. Yakadina, and R. Zymek (2009) "Fiscal Rules – Anchoring Expectations for Sustainable Public Finances", IMF Staff Paper, International Monetary Fund, Washington D.C.

Reuter, W.H. (2016) "When and why do countries break their national fiscal rules?", German Council of Economic Experts.

Schaechter, A., T. Kinda, N. Budina, and A. Weber (2012) "Fiscal Rules in Response to the Crisis – Toward the Next-Generation Rules. A New Dataset". IMF Working Paper 12/187, International Monetary Fund, Washington D.C.

Ter-Minassian, T. (2010) "Preconditions for a successful introduction of structural fiscal balance based rules in Latin America and the Caribbean: a framework paper", Discussion Paper No. IDB-DP-157, Inter-American Development Bank.

Williams, J.C. (2013) "A Defense of Moderation in Monetary Policy", Working Paper 2013-15, Federal Reserve Bank of San Francisco.

Wyplosz, C. (2012) "Fiscal Rules: Theoretical Issues and Historical Experiences", NBER Working Papers 17884, National Bureau of Economic Research, Inc.