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Fiscal Councils: Rationale and Effectiveness

by Roel M.W.J. Beetsma and Xavier Debrun

I N T E R N A T I O N A L M O N E T A R Y F U N D

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Fiscal Councils: Rationale and Effectiveness

Prepared by Roel W.M.J. Beetsma and Xavier Debrun*

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Abstract

The paper discusses the effectiveness of independent fiscal institutions—or fiscal councils—in taming the deficit bias that emerged in the 1970s. After a review of the main theoretical arguments and recent trends about fiscal councils, we develop a stylized model showing how a fiscal council can effectively mitigate the deficit bias even though it has no direct lever on the conduct of fiscal policy. We show that the capacity of the fiscal council to improve the public’s understanding of the quality of fiscal policy contributes to better align voters and policymakers’ incentives and to tame the deficit bias affecting well-intended governments. After mapping the model’s key features into a broad set of criteria likely to contribute to the effectiveness of a fiscal council, we use the 2014 vintage of the IMF dataset on independent fiscal institutions to assess whether existing institutions have been built to work.

JEL Classification Numbers: E61, E62, H11, H62

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I. INTRODUCTION

In recent years, a rapidly growing number of countries have established independent institutions specifically aimed at promoting sound fiscal policies.¹ These agencies—which we label “fiscal councils” in the remainder of this paper—vary greatly in terms of their mandate, tasks, and institutional models (see Debrun and others, 2009, 2013; and Kopits, 2013, for comprehensive surveys). Although such heterogeneity complicates theoretical and empirical analyses, fiscal councils share broad features, such as an explicit mandate enshrined in legislation, an official “watchdog” role implying a direct contribution to the public debate on fiscal policy, and non-partisanship in their activities. The emphasis on non-partisanship is essential to distinguish them from ad-hoc bi-partisan or multi-partisan advisory committees sometimes appointed by government to formulate policy recommendations on specific public finance or broader economic issues.

Although the literature often compares fiscal councils to independent central banks, the fundamental difference between them is that fiscal councils never have the discretion to set policy instruments.² They are at a minimum government-sponsored cheerleaders of fiscal discipline and at best active facilitators of such discipline. This is clearly far from decision makers deliberately insulated from politics to escape a time-inconsistency problem (Thomson, 1981; Rogoff, 1985).

The rise in fiscal councils around the world has coincided with rapidly escalating concerns about the longer-term sustainability of public finances. In contrast to the last three decades of the 20th century, these concerns have not spared advanced economies where preventing explosive public debt trajectories has become a challenge. More than five years after the Global Financial Crisis of 2008–09 (GFC) public debt ratios have barely plateaued at historical highs despite record low interest rates in many countries. The fiscal legacies of the GFC are only partly to blame for the erosion of fiscal credibility. Substantial liabilities had already been accumulated pre-GFC and the intensifying demographic pressures on entitlement spending thwart efforts to rebuild robust fiscal positions.

The aim of this paper is to analyze the effectiveness of fiscal councils in encouraging fiscal discipline. Since experience with fiscal councils is arguably too limited to envisage a robust empirical analysis, we proceed in two steps.

First, we fill an important gap in the literature by proposing a simple theoretical model of fiscal policy with or without a fiscal council. Asymmetric information between voters and a politician is the central feature of the model. We show how a fiscal council can: (i) be in the interest of the

¹ By “sound,” we essentially mean financially sustainable over the medium term, because this is the precondition for policymakers to deliver adequate amounts of public goods and services and to smooth the business cycle.

² Only one such institution (in Hungary) has formally a veto power on the budget.

elected official establishing it; and (ii) be effective in discouraging the deficit bias affecting the official's fiscal decisions, which raises social welfare. The capacity of the fiscal council to improve the public's understanding of the quality of fiscal policy contributes to better align voters and policymakers' incentives and to tame the deficit bias affecting well-intended governments. Specifically, the model shows that the impact of a fiscal council on fiscal performance is the greatest when it is able to minimize the noise surrounding signals of the incumbent government's productivity in delivering public goods, which we summarize by the generic term "competence." Most importantly, the positive impact of the fiscal council applies regardless of the true type of government ("competent" or not).

Second, we map the main policy implications of the model into a set of core criteria that increase the likelihood that a council will effectively improve voters' ability to assess the competence of the incumbent government—the key factor in their voting decision. Using the latest vintage of the IMF dataset on independent fiscal institutions, we assess whether existing institutions have been designed to be effective or whether they are more likely to have been conceived as smokescreens.

The rest of the paper is structured as follows. The second section briefly reviews the rationale for fiscal councils and the possible channels through which they influence fiscal outcomes. Section III discusses the model, while section IV maps the model's results into features of fiscal councils likely to boost their effectiveness. Existing fiscal councils are assessed along these criteria.

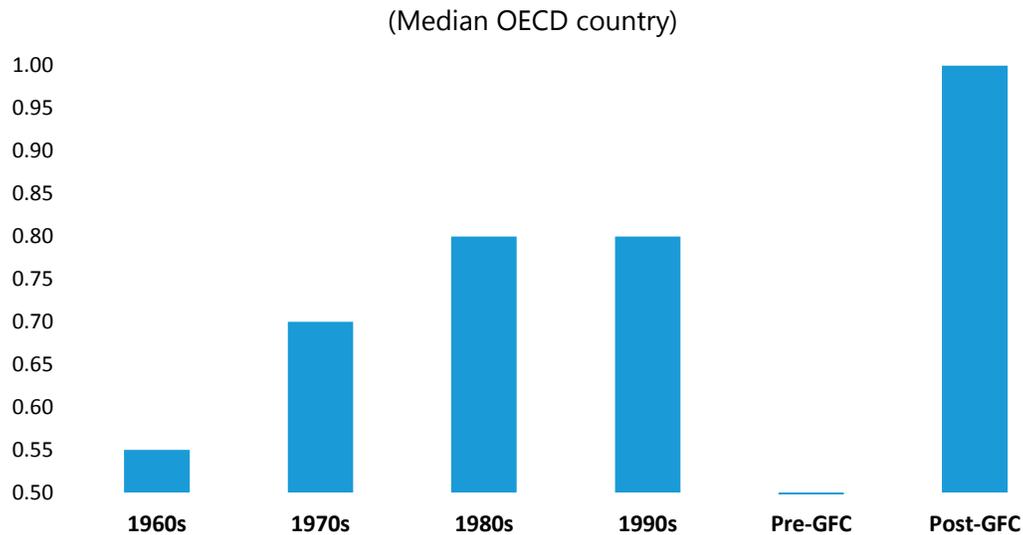
II. FISCAL COUNCILS ON THE RISE

This section first documents recent trends in the establishment of fiscal councils. It then reviews arguments made in the literature to explain the rise in fiscal councils and provides some motivation for the model proposed in Section III.

A. Deficit Bias and the Emergence of Fiscal Councils

Since the early 1970s, the conduct of fiscal policy has been characterized by a strong bias towards budget deficits. Looking at a sample of 22 advanced economies for which long fiscal times series exist, the frequency of general government deficits increased markedly over time and across countries (Figure 1). While in the 1960s about half of the countries recorded broadly balanced or in-surplus budget positions more than half of the time, only New Zealand and Norway had managed such performance during 1990–99. The median number of deficit years per decade was between seven and nine years for all post 1970 sub-periods except the pre-GFC period (2000–08), when many countries benefitted from fast increasing revenues on the back of asset price booms and relatively strong economic growth. The fiscal legacies of the GFC to this day are also very clear: 13 out of the 22 countries in our sample have recorded or are expected to experience a deficit every single year between 2009 and 2017.

Figure 1. Advanced Economies: Frequency of Overall Fiscal Deficits Above 0.5 Percent of GDP



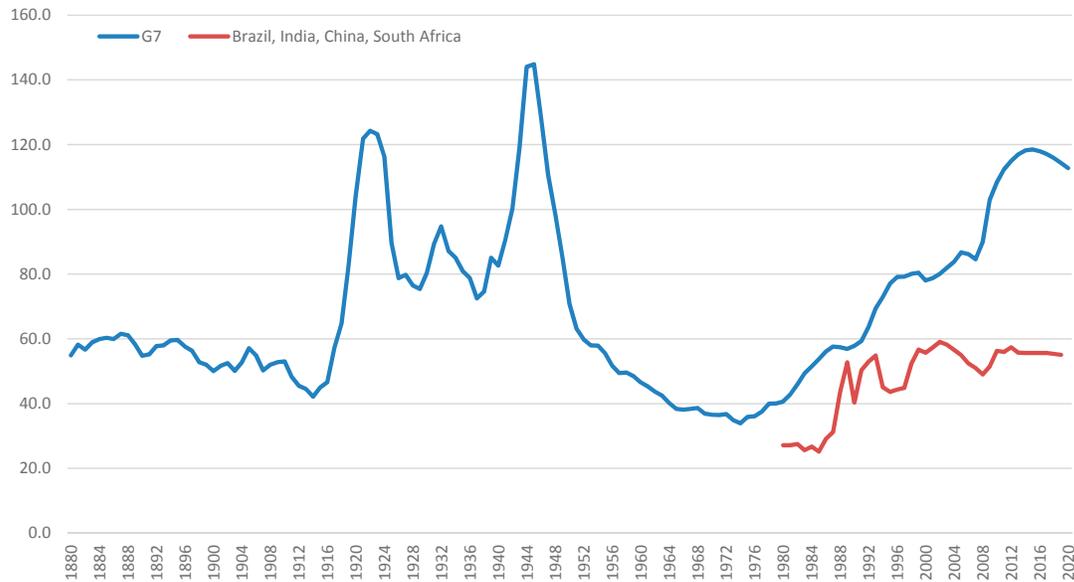
Note: The sample covers Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, The Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Observations for 2015–17 reflect IMF forecasts (World Economic Outlook database, June 2015).

Sources: Mauro and others (2013), *World Economic Outlook*, OECD, and national authorities.

While fiscal deficits often reflect adverse domestic and external shocks, their persistence in so many countries for so long and the protracted public debt buildup that follows suggest that some fundamental factors are at play. Figure 2 provides a useful historical perspective. Never in peacetime has public debt reached levels seen today among the G7 economies. If debt ratios are expected to decline in the next few years, it is mostly due to abnormally low borrowing costs for these countries. Should interest rates move back to their historical average, debt ratios would, all else equal, be sharply on the rise. Note that a number of emerging economies with market access also exhibit a clear upward trend in their public debt-to-GDP ratios despite relatively stronger economic growth.

A vast theoretical and empirical literature suggests that weak public financial management and distorted political incentives are the main culprits for the deficit bias. Political distortions include the tendency of policymakers to focus on the consequences of their discretionary actions in the short term, paying insufficient attention to the medium and the long term. Moreover, distributive conflicts entail the “common pool” problem: that is the basic tendency for any given political constituency to use the available resources for their exclusive benefit without regard to the overall budgetary position. In addition, the deficit bias can also reflect time inconsistency. For instance, it can be difficult for governments to credibly commit to saving revenue windfalls in good times because of strong spending pressures that inevitably arise when abundant resources are available.

Figure 2. G7 and Selected Emerging Market Economies: Public Debt (1880–2020)
(In percent of GDP)



Sources: Abbas and others (2010) and *World Economic Outlook*.

Faced with nervous voters and financial markets, governments have actively sought to strengthen the institutional setup shaping fiscal policy decisions in the hope to shore up the credibility of their commitments to financial sustainability. Not surprisingly, it is during one of the worst episodes of pervasive and persistent deficits (the 1990s) that advanced economies started to constrain fiscal discretion through fiscal rules. These consist of numerical limits on debts, deficits or expenditure, and an explicit implementation mechanism expected to entail reputational and political costs to non-compliant governments. The appetite for rules propagated to developing economies less than a decade later. Following the initial wave of fiscal rule adoptions, many countries tried to further boost fiscal credibility through better designed rules and by setting up fiscal councils to foster transparency and accountability. However, the emergence of fiscal councils has been much more gradual and has really started in earnest after the GFC, reflecting in part provisions of the Treaty on Stability, Coordination and Governance in the (European) Economic and Monetary Union (Figure 3). Efforts to comply with the Treaty also explain why a significant number of fiscal councils have been explicitly mandated to strengthen and facilitate the implementation of fiscal rules, not to substitute them.

B. Institutions for Fiscal Credibility?

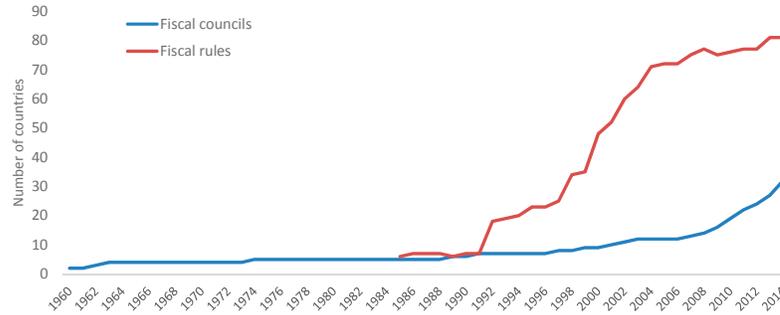
The widespread reliance on institutional reforms to boost fiscal credibility contrasts with long-standing doubts about the actual impact of institutional arrangements on policy outcomes. Objections to the effectiveness of institutions aimed at constraining macroeconomic policy discretion were originally articulated in the debate on central bank independence; and they apply to fiscal councils. One major critique—directly echoing McCallum (1995)—is that theoretical derivations of optimal fiscal institutions simply assume their effectiveness. Indeed, institutions are modeled as incentive schemes for policymakers and their credibility is often taken as given. Proponents of institutional reforms invariably reply that institutions are essentially defined by the high costs of changing them so that they are intrinsically more credible than discretionary policies. In the end, there is a clear need to be explicit about the incentives of policymakers to set up and preserve such institutions, including the mechanisms through which bypassing or changing institutions could entail costs for policymakers (Jensen, 1997).

Another critical view on the effectiveness of institutions is due to Posen (1995) who argues that in a democracy, institutions can only be sustained if they reflect deeper social preferences or permanent features of the political system. That argument again implies that institutions *per se* do not change underlying incentives. In the context of central bank independence, Posen (1995) concludes that *"both central bank independence and a coalition in society committed to protecting that independence are necessary to achieve the low inflation heretofore ascribed to central bank independence; either alone is insufficient (p. 271)."*

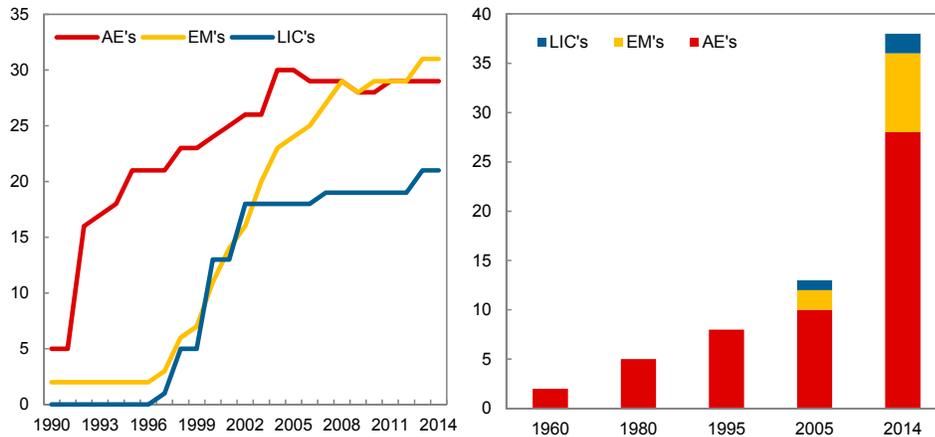
Thus, the question as to why fiscally profligate governments would adopt discipline-enhancing mechanisms such as fiscal rules and fiscal councils remains open. As noted by von Hagen (2013), fiscal councils *"can help improve fiscal performance if and only if the government agrees that there is a problem of weak fiscal performance and something must be done about it."* This has direct implications for any attempt to establish an empirical link between institutions and performance. The risk of reverse causality looms large because the governments that adopt strong institutions are likely to be precisely those that would spontaneously stick to sound public finances in the first place (see Debrun and others, 2008; Fabrizio and Mody, 2006; or Krogstrup and Wälti, 2008).

Figure 3. Number of Countries with Fiscal Rules and Fiscal Councils

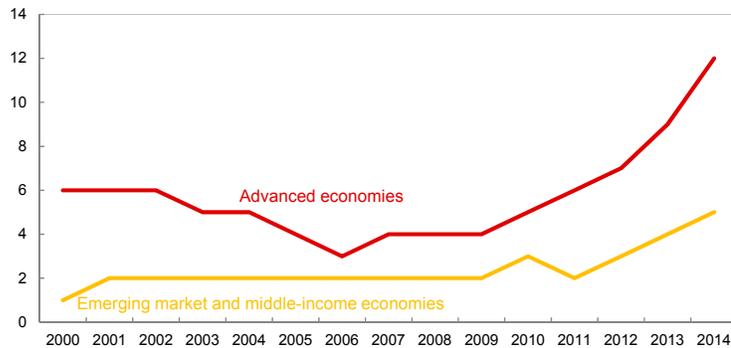
a. *Two waves of fiscal rules and fiscal councils*



b. *Fiscal rules (left panel) and fiscal councils (right panel) by type of economy*



c. *Number of countries where the fiscal rule is monitored by a fiscal council*



Sources: IMF (2015a,b): Fiscal Rules and Fiscal Councils Datasets (information current as of end-2014).

Note: "LIC" = low income countries, "EM" = emerging market economies, and "AE" = advanced economies.

Importantly, however, these critiques do not necessarily imply the lack of effectiveness of fiscal institutions. The reason is that they have been developed in response to theories that assume (i) that the public knows the true motivation and competence of the government (complete

information), and (ii) that institutions can only be effective if they somehow “tie the hands” of politicians by acting as binding constraints on their actions (or even by acting on their behalf on the basis of a predetermined mandate, like today’s central banks).

In the plausible case where voters do not know the true level of competence and commitment of politicians, institutions can play a signaling role. Specifically, the very fact that an elected official would have no incentive to tie her own hands suggests that setting up discipline-oriented institutions could be a signal of underlying preferences or competence.³ In other words, fiscal institutions exist to inform the public about the genuine preferences or competence of the government, and as such they can help align incentives of policymakers and the public. To the extent that the information asymmetry between voters and policymakers is a source of bias—for example because it increases political instability and shortsightedness in decision-making—the effectiveness of institutions (i.e., their positive effect on fiscal discipline or welfare more broadly) can come from their signaling (or signal-enhancing) role.⁴ This is the spirit of the theoretical model developed in Section III, which focuses on how institutions can improve voters’ assessment of government’s competence (as defined above).

Our model contrasts with the conventional exposition of the case for fiscal councils. The literature often builds the case for fiscal councils on a comparison with monetary policy delegation. The typical narrative is articulated as follows (see e.g. Wyplosz, 2011). First, there is a review of the many reasons why fiscal policy tends to systematically deviate from a socially optimal solution, with an emphasis on common pool problems, short-termism, and time-inconsistency. Second, fiscal policy rules are deemed ineffective in containing the deficit bias, largely because of low compliance (see Cordes and others, 2015) and frequent changes. The main reason is that the simplicity required for their smooth operation reduces their appropriateness when uncommon conditions prevail. For example, deficit ceilings fail to trigger discipline in good times—when compliance is more likely to result from automatic stabilizers than conscious actions—but bind in bad times, forcing undesirable pro-cyclical contractions. Third, comes a call to our sense of *déjà vu* to draw a parallel with the case for central bank independence, which is also based on the idea of an expansive bias affecting unconstrained discretionary policies, and on the manifest failure of rigid rules (e.g., caps on the growth of certain monetary aggregates) to address that bias.

We now turn to the description of the model.

³ Stéclébout-Orseau and Hallerberg (2007) develop a full-fledged model of the signaling role of independent watchdogs.

⁴ Debrun (2011) proposes a formal illustration of that argument. Of course, the possibility for incompetent or intrinsically profligate policymakers to adopt similar institutions opens the possibility of fiscal institutions being mere smokescreens in a non-trivial number of cases (Milesi-Ferretti, 2004; von Hagen and Wolff, 2006; and Debrun and Kumar, 2008).

III. A SIMPLE MODEL OF A FISCAL COUNCIL

This section presents a simple model aimed at rationalizing the potential existence of fiscal councils (FC). As discussed in Section II, our basic premise is that an FC can contribute to mitigate problems of asymmetric information between elected officials and voters. In principle, this could be asymmetric information about the competence of the government or about policies themselves, for instance because the executive branch may have more information about the true state of the public finances than the parliament or the public at large.

The model presented in this section emphasizes the first aspect of fiscal councils. The algebra is kept as simple as possible to better bring out the key intuitions. We make two essential assumptions. First, there is a political distortion (myopia) giving rise to sub-optimally high deficit levels. Second, a fiscal council is effective in helping voters to assess the exogenous and unobservable level of competence of the government.⁵ In that setting, we show that a fiscal council can raise social welfare either by helping voters to elect competent governments more often or by directly encouraging elected policymakers—regardless of their competence—to select deficits closer to the social optimum. That second channel is of particular interest because it shows that an official watchdog with no direct policy lever can enhance fiscal discipline by strengthening the government’s incentive to signal a high level of competence through lower deficit.

A. Basic Setup

There are two periods. We assume a representative individual featuring a quasi-linear utility function defined over public good provision in the two periods:

$$E_0[u(g_1) + g_2], \quad (1)$$

where g_1 and g_2 are spending on public goods in periods 1 and 2, respectively, and $u(\cdot)$ is a strictly increasing, concave function. Utility in the second period is linear because it simplifies the algebra substantially and avoids introducing effects arising purely from risk aversion. These technical simplifications are immaterial for the existence of a suboptimal debt bias.

There are two political parties, which we label as L (liberal) and C (conservative) although ideology is not a factor in the model. Public spending in period t is selected by the political party that is in power in that period. A party only benefits from public spending if it is itself able to deliver the public good. For convenience, and without loss of generality, we assume that party L is in power in the first period. Hence, the utility of party L at the start of the game is:

⁵ Recall that “competence” is a generic term capturing the efficiency in delivering public goods and services. It is the only criterion voters can use to differentiate two political parties competing for power, and therefore, the only determinant of voting decisions.

$$E_0[u(g_1) + \Delta_L g_2], \quad (2)$$

where the indicator function Δ_L is 1 when L is in power in period 2, and zero when it is not. Regardless of the party, policymakers have individual levels of efficiency at generating public goods (or competence) λ when they take office in period 2. This level of competence is uncertain to all players at the start of the game. Competence is drawn from a binary distribution as follows:

$$\lambda_L, \lambda_C = \begin{cases} -\bar{\lambda}, & \text{with probability 0.5} \\ \bar{\lambda}, & \text{with probability 0.5} \end{cases} \quad (3)$$

where $\bar{\lambda} > 0$. Hence, the unconditionally expected competence level of a party is zero.

The economy is an endowment economy with exogenous amounts of resources that can be transformed into public goods in a more or less efficient way, depending on the competence of the government in charge. The resource constraints in the two periods can be written as:

$$\begin{cases} g_1 = 1 + b \\ g_2 = 1 - b + \lambda_2 \end{cases} \quad (4)$$

where b is the public debt (or deficit in this 2-period set-up) and we have used the fact that the party in power in the first period is L and the party in power in the second period is unknown at the start of the game.

A fiscal council may be established by a decision of "society" (a representative individual / the legislature) or the government. There is an important difference between the two cases. If it is society's prerogative to establish the FC, then that decision does not provide any information about the competence of the government. However, if it is the government's prerogative to establish an FC, then this decision could in itself provide information about the government's competence. The reason is that the fear of being exposed as incompetent might discourage a government to establish an FC, making the decision to do so a potential signal of competence.

We study both cases. For the case in which society decides to institute an FC, we assume that this decision comes first in the game. Then, the government learns its own competence level, after which it selects the debt level. Next, voters receive a signal about the competence level of the government. This is followed by the election and, finally, the second-period outcomes materialize. Hence, under this timing debt can potentially act as a signal of the government's competence.

For the case in which the government itself chooses whether or not to install an FC, we assume the following timing. First, the government learns about its competence level. Then, it simultaneously decides on whether to establish (or not) an FC and on the debt level. Then, voters

receive the signal about the competence of the government. This is followed by elections and, finally, the second-period outcomes materialize. The cases in which the government would choose to establish (or not) an FC and set the debt level before it knows its competence level are clearly less interesting because those decisions could not convey any information about competence.

The competence signal received by voters is noisy:

$$\delta = \lambda + \alpha\mu, \text{ where } \mu \sim N(0, \sigma_\mu^2) \quad (5)$$

where μ is independent of λ . Hence, we have that: $(\delta|\lambda = -\bar{\lambda}) \sim N(-\bar{\lambda}, \alpha^2\sigma_\mu^2)$ and $(\delta|\lambda = \bar{\lambda}) \sim N(\bar{\lambda}, \alpha^2\sigma_\mu^2)$.

Obviously, the mean of the signal's distribution depends on the government's competence. This is where the FC comes into play. Through economic analysis and public communication about fiscal policy, a fiscal council can help the general public and all stakeholders in the budget process to infer the competence of the government. For instance, the FC can issue reports summarizing and clarifying information that would otherwise be buried in official documentation or distorted by ideologically charged arguments exchanged in the political arena. The watchdog role that is common to all FCs thus arguably contributes to reduce the noise around the public debate about fiscal policy, thereby enhancing the signal about government competence. In the terms of equation (5), this means that $\alpha = 1$ in the absence of an FC, while $0 \leq \alpha < 1$ if an effective FC is in place. Overall, an effective FC makes it more likely that a positive (negative) signal reflects true competence (incompetence).

Two intuitive assumptions help streamline the remainder of the analysis.

Assumption 1: Public debt must always be repaid in full (or assets liquidated) in period 2.

Allowing for default would significantly complicate the analysis at little benefit for the core argument because borrowing costs would have to factor in default probabilities. Assumption 2 is related to the no-default conjecture and concerns marginal period-utilities.

Assumption 2: The highest debt level a government can choose in period 1 is $1 - \bar{\lambda}$, which is characterized by $u'(2 - \bar{\lambda}) < 1$.

The underlying intuition is as follows. Because the government must be able to face its obligations even in case of a bad realization of the competence variable in period 2 ($\lambda_2 = -\bar{\lambda}$), the maximum amount of public debt that can be issued and spent in period 1 is $1 - \bar{\lambda}$. Otherwise, there would be an unconditional probability of default in period 2 of at least a 50 percent. The public consumption path when public debt is maximized by an incompetent government⁶ is therefore $g_1 = 2 - \bar{\lambda} > 0$ and $g_2 = 0$. In that case, it seems intuitive to assume

⁶ Note that if the government is competent, $g_2 = 2\bar{\lambda}$, although this does not change the inequality between period marginal utilities.

that the marginal utility associated with a large public consumption in period 1 is strictly smaller than the marginal utility of zero public consumption in period 2, which is by definition constant equal to 1. In practice, Assumption 2 implies that an extreme “starve-the-beast” strategy⁷ cannot be an interior solution of a government maximization program.

In a two-period setting, these assumptions have the advantage to bring out the channels of influence of FCs on policy outcomes in the clearest possible way. In future work, we will explore how the results generalize to an infinitely repeated game, where incumbents winning re-election can roll over existing debt instead of repaying it and where additional distortions, such voters’ neglect for unborn generations, can come into play.

B. Establishing an FC is Society’s Choice

This case is particularly interesting because the choice of debt can be used by the government to signal its competence. However, the eventual outcomes depend on the type of equilibrium that materializes. Under a “pooling equilibrium” the incompetent government tries to “mimic” the competent government by choosing the same debt level that the latter would also choose. Hence, in equilibrium, the only remaining information that voters can exploit to infer something about the government’s competence is the signal δ . In a “separating equilibrium”, the two types of government choose different debt levels and from the specific choice of the debt level, the voting public can infer the competence level. Hence, the signal δ does not carry any additional information about competence.

Pooling equilibrium

If δ is the only relevant piece of information that voters can use to extract information about the government’s competence, then re-election takes place when the signal δ is greater than or equal to zero. Hence, the likelihood of re-election that the government perceives when it has to choose its debt level is $\Pr(\lambda + \alpha\mu \geq 0 \mid \lambda_L)$. If the incumbent is incompetent, i.e. $\lambda_L = -\bar{\lambda}$, its perceived re-election probability is:

$$\Pr(\lambda + \alpha\mu \geq 0 \mid \lambda_L = -\bar{\lambda}) = 1 - \Pr(\mu / \sigma_\mu < \bar{\lambda} / (\alpha\sigma_\mu)) = 1 - \Phi(\bar{\lambda} / (\alpha\sigma_\mu)), \quad (6)$$

where $\Phi(\cdot)$ is the cumulative distribution function of the standard normal density function. Clearly, the perceived re-election probability of the incompetent government is increasing in α . If the incumbent is competent, i.e. $\lambda_L = \bar{\lambda}$, its perceived re-election probability is:

$$\Pr(\lambda + \alpha\mu \geq 0 \mid \lambda_L = \bar{\lambda}) = 1 - \Pr(\mu / \sigma_\mu \geq -\bar{\lambda} / (\alpha\sigma_\mu)) = 1 - \Phi(-\bar{\lambda} / (\alpha\sigma_\mu)). \quad (7)$$

⁷ Such a strategy would be extreme because the government would find it optimal to accumulate such a high level of debt in period 1 that there would be at least a 50 percent chance of government shutdown (zero public consumption) in period 2.

This expression falls if α increases. Hence, conditional on a given debt level, an incompetent government would be worse off in the presence of an FC (i.e. $0 \leq \alpha < 0$), while a competent government would be better off.

There potentially exists a multiplicity of pooling equilibria associated with different ways in which the off-equilibrium probabilities about the type of government are formed. We focus on a candidate pooling equilibrium that we consider plausible. The candidate equilibrium debt level is the one that maximizes the competent incumbent's expected utility, assuming that voters cannot infer the type of government from the chosen debt level (precisely because an incompetent government would choose the same debt level). That is, we look for the value of b that maximizes:

$$u(1+b) + \left[1 - \Phi\left(-\bar{\lambda}/(\alpha\sigma_\mu)\right)\right](1-b+\bar{\lambda}),$$

where the term in square brackets is the likelihood of re-election of an incumbent who knows it is competent. The first-order condition is:

$$u'(1+b) = \left[1 - \Phi\left(-\bar{\lambda}/(\alpha\sigma_\mu)\right)\right]. \quad (8)$$

The solution exists and is unique. We denote it by $b^{c,p}$.

A potential equilibrium needs to be supported by a proper set of beliefs about the government's competence level when a specific on-equilibrium or off-equilibrium action is taken. Consistent with this being a pooling equilibrium, voters believe the incumbent is competent with probability one-half if $b = b^{c,p}$. In the case of an off-equilibrium action $b \neq b^{c,p}$, we assume that voters believe that the incumbent is incompetent. Does such a pooling equilibrium indeed exist? To this end, we need to check that, given the way the beliefs are formed, none of the two government types have an incentive to deviate from setting $b = b^{c,p}$.

First, does the *incompetent* government have an incentive to deviate? If it deviates, then voters infer that the incumbent is incompetent and, hence, it will for sure not be re-elected. Knowing this, the optimal deviation is to maximize $u(1+b)$ over b under the restriction that debt must always be repaid. This implies $b = 1 - \bar{\lambda}$ and utility to the incumbent of $u(2 - \bar{\lambda})$. Hence, an incompetent incumbent mimics $b = b^{c,p}$ if

$$u(1+b^{c,p}) + \left[1 - \Phi\left(\bar{\lambda}/(\alpha\sigma_\mu)\right)\right](1-b^{c,p}-\bar{\lambda}) \geq u(2-\bar{\lambda}), \quad (9)$$

where the left-hand side is the expected utility under not deviating.

Second, does the *competent* government have an incentive to deviate? If it deviates, the voting population is led to believe that it is incompetent. When it deviates, it would deviate in an optimal way, maximizing the objective $u(1+b)$. This again yields $b = 1 - \bar{\lambda}$, and utility $u(2 - \bar{\lambda})$. Hence, the competent government sets $b = b^{c,p}$ if:

$$u(1+b^{c,p}) + \left[1 - \Phi\left(-\bar{\lambda} / (\alpha\sigma_\mu)\right)\right] (1 - b^{c,p} + \bar{\lambda}) \geq u(2 - \bar{\lambda}) \quad (10)$$

Notice that the left-hand side of (10) exceeds that of (9) and, hence, (9) is the more restrictive condition.

We can now state:

Proposition 1: If condition (9) holds, a pooling equilibrium exists in which (i) along the equilibrium path both the competent and incompetent incumbent set $b = b^{c,p}$; (ii) the voting population believes that if $b = b^{c,p}$ the incumbent is competent with probability one-half, while if $b \neq b^{c,p}$, it believes that the incumbent is incompetent.

This equilibrium has some interesting characteristics. From (8) we observe that the equilibrium debt level $b^{c,p}$ is increasing in α , meaning that the debt level decreases with the precision of the signal δ . The establishment of an FC thus lowers the equilibrium debt level. The question is whether this reduction is welfare improving. To answer this question, observe that the socially-optimal debt level, i.e. the debt level that maximizes the representative individual's utility and which we denote by b^* , follows from the first-order condition $u'(1+b^*) = 1$. Hence, $b^{c,p} > b^*$, and the introduction of an FC brings the equilibrium debt level closer to the socially-optimal debt level. This raises social welfare because the latter is strictly concave in the debt level. Summarizing, we can state:

Proposition 2: In the pooling equilibrium described above, the introduction of a fiscal council lowers the equilibrium debt level, bringing it closer to the socially-optimal debt level.

As far as social welfare is concerned, we can formulate Proposition 3:

Proposition 3: In the pooling equilibrium described above, the FC enhances social welfare via two different channels: (i) it leads both types of government to select a debt level that is preferable from a social perspective, and (ii) the greater precision of the signal δ raises the likelihood that a competent government is elected, while it reduces the re-election prospects of an incompetent administration.

A direct consequence of the second channel in Proposition 3 is that the expected amount of public goods produced in the second period is higher under an FC.⁸ To unveil this second channel, observe that in a pooling equilibrium there is no other information than the realization $\bar{\delta}$ of the signal δ that the voters can use to assess the competence of the incumbent. Hence, voters re-elect the incumbent government if, given the signal, expected second-period resources under the incumbent exceed expected second-period resources under the other party C, which is

⁸ If we were to change the timing, and assume that the government selects its debt level before it observes its competence, then debt would be independent of the government's competence, and only the second channel in Proposition 3 would be present.

deemed competent with probability $\frac{1}{2}$. Voters choose the incumbent if

$E_1[1 - b + \lambda_L | \delta = \bar{\delta}] \geq E_1[1 - b + \lambda_C]$, that is if $E_1[\lambda_L | \delta = \bar{\delta}] \geq 0$, because $E_1[\lambda_C] = 0$. The subscript "1" on the expectations operator indicates that the expectation is taken just before period 2 starts, i.e. just before the election in the second period. Using Bayes' rule we can write this condition as

$$E_1[\lambda_L | \delta = \bar{\delta}] = -\bar{\lambda} \Pr(\lambda_L = -\bar{\lambda} | \delta = \bar{\delta}) + \bar{\lambda} \Pr(\lambda_L = \bar{\lambda} | \delta = \bar{\delta}) \geq 0.$$

Working this out, we obtain:

$$E_1[\lambda_L | \delta = \bar{\delta}] = \frac{-\bar{\lambda} \exp\left[-\frac{1}{2}\left(\frac{\bar{\delta} + \bar{\lambda}}{\alpha\sigma_\mu}\right)^2\right] + \bar{\lambda} \exp\left[-\frac{1}{2}\left(\frac{\bar{\delta} - \bar{\lambda}}{\alpha\sigma_\mu}\right)^2\right]}{\exp\left[-\frac{1}{2}\left(\frac{\bar{\delta} - \bar{\lambda}}{\alpha\sigma_\mu}\right)^2\right] + \exp\left[-\frac{1}{2}\left(\frac{\bar{\delta} + \bar{\lambda}}{\alpha\sigma_\mu}\right)^2\right]} \geq 0. \quad (11)$$

Hence,

$$E_1[\lambda_L | \delta = \bar{\delta}] (<) = (>) 0, \text{ if } \bar{\delta} (<) = (>) 0.$$

This means that conditional on a positive (negative) signal, the electorate believes that the incumbent's competence exceeds that of its competitor so that the incumbent is re-elected (voted out of office). In the limit case of $\delta = 0$, which effectively occurs with probability zero, we assume that the incumbent is re-elected.

Taking into account the electoral choice conditional on the signal, the expected competence level in period 2 is:

$$\Pr(\delta > 0) \times E_1(\lambda_L | \delta > 0) + \Pr(\delta < 0) \times 0 = \frac{1}{2} E_1(\lambda_L | \delta > 0) > 0 \quad (12)$$

The presence of a fiscal council makes the signal less noisy. Hence, conditional on a positive signal, the expected competence level of the incumbent is higher. The welfare gain materializing through the second channel results from the fact that a negative signal more likely leads to the dismissal of an incompetent government, while a positive signal raises the likelihood that a competent government remains in office.

Separating equilibrium

We now explore whether a *separating equilibrium* exists and, if so, what its properties could be. Such an equilibrium exists if the incumbent government finds it optimal to select different debt levels depending on its level of competence and given the way voters form their beliefs about competence when they observe the debt level. As we illustrate below, no plausible separating equilibrium exists in our simple setup.

The search for a separating equilibrium starts with characterizing different candidate equilibrium debt levels $b^{i,s}$ and $b^{c,s}$ chosen by the incumbent administration depending on its competence. If the debt level conveys information about competence, then it is realistic to assume that voters

believe with probability 1 that the incumbent is incompetent if it deviates from $b^{c,s}$. Because setting a debt level different from $b^{c,s}$ leads to certain electoral defeat (and a complete ignorance of the future), an incompetent government would simply maximize $u(1 + b)$. Such a government would thus spend the highest amount possible in period 1, choosing the highest debt consistent with the no-default assumption: $b^{i,s} = 1 - \bar{\lambda}$. The utility of the incompetent government playing $b^{i,s}$ would thus be $u(2 - \bar{\lambda})$. By playing $b^{c,s}$ ($\neq b^{i,s}$), a competent incumbent would be re-elected with certainty. In that case, the optimal debt level maximises the expected utility $u(1 + b) + (1 - b + \bar{\lambda})$ and $b^{c,s}$ satisfies the first-order condition $u'(1 + b^{c,s}) = 1$, which coincides with the socially-optimal debt level. We can now formulate Proposition 4.

Proposition 4: There exists no separating equilibrium with distinct choices $b^{i,s}$ and $b^{c,s}$ for the incompetent and competent incumbent, respectively, and with voter beliefs that assign a probability zero (one) to the incumbent being competent if debt deviates from (equals) $b^{c,s}$.

The exclusion of this a priori plausible candidate equilibrium directly follows from Assumption 2 above. Since $b^{c,s}$ solves $u'(1 + b) = 1$, it is strictly smaller than the maximum amount of debt consistent with solvency (which, in our candidate equilibrium, would be $b^{i,s} = 1 - \bar{\lambda}$ with $u'(2 - \bar{\lambda}) < 1$). It is now clear that even an incompetent government cannot benefit from accumulating debt beyond $b^{c,s}$ because it would forfeit re-election, and with it, lose the total utility generated in period 2 in exchange for a strictly inferior utility gain on any additional unit of public consumption provided in period 1. Thus the fact that an incompetent government has no incentive to choose $b^{i,s} \neq b^{c,s}$ proves Proposition 4.

C. Installing an FC Is the Prerogative of the Government

In the analysis so far, society chooses whether or not to set up an FC. As a result, that decision is not per se a signal about the competence of the government. In this subsection, we consider the case in which the government itself can create the FC.⁹ For this exercise to be relevant, we now assume that the government knows about its competence before any policy decision is made so that both choices—creating an FC and setting the debt level—can convey information about competence to voters. We restrict the analysis to a pooling equilibrium, when a government—regardless of its true competence—could be led to pick a debt level closer to the social optimum so as not to appear incompetent.

Equation (7) showed that for a given debt level the competent government is better off in the presence of an FC. Therefore, it seems natural to look for a pooling equilibrium in which both types create an FC and choose a level of public debt $b^{c,p}$ that maximizes the competent government's expected utility in the presence of an FC, knowing that the incompetent type would pick the same debt level. We can state:

⁹ This conjecture is not only relevant for cases where the fiscal council was created by executive decisions (e.g., Belgium), but also in parliamentary systems where the executive and legislative branches have the same political color and generally work hand in hand.

Proposition 5: If the government can establish an FC, a pooling equilibrium exists in which the incumbent establishes an FC and chooses a debt level $b^{c,p}$, with the voters' beliefs about the two types along the equilibrium path given by $Pr(\lambda_L = -\bar{\lambda} | \delta = \bar{\delta})$ and $Pr(\lambda_L = \bar{\lambda} | \delta = \bar{\delta})$, as calculated above according to Bayes' rule, and voters assigning an off-the-equilibrium-path (i.e., when the choice is made not to install an FC) probability of competence of zero. Under this pooling equilibrium, the government's choice to install an FC effectively yields no extra signal beyond that provided by the realization of δ . Beliefs are updated in the same way as when society establishes the FC and outcomes are also the same. Once again, creating an FC is welfare improving because public debt ends up closer to the social optimum and because it provides a more precise signal about government competence, which helps voters make a better informed decision at the ballot box.

IV. ARE EXISTING FISCAL COUNCILS BUILT TO WORK?

The limited experience with FCs and their considerable heterogeneity across countries make it difficult to assess their effectiveness empirically.¹⁰ In our view, the effectiveness of an FC depends on two main preconditions. The first is that the mandate and tasks of the council specifically aim at addressing the most relevant sources of deficit bias (von Hagen, 2013, and Debrun et al., 2013). The second dimension is that the council should be equipped to ensure that all public information about the budget is a clear signal of politicians' genuine intent and actions. Our model elaborates only on the second precondition. This "signal-enhancement" capacity of the FC will also be the focus of this section.

We build a simple summary index assessing the likelihood that existing fiscal councils can mitigate the asymmetry of information between the public and politicians.

A. Enhancing the Signal: An Index

To find out whether fiscal councils have what it takes to reduce the noise-to-signal ratio of budgetary information, we build a simple summary index based on relevant features of existing institutions. The construction of the index primarily reflects our judgement as to what characteristics reported in the IMF Fiscal Council dataset are likely to help the council ensure that the right information reaches the right people (voters, members of parliament, and other stakeholders in the budget process). A similar approach could be applied to other data sources, such as the European Commission's database on fiscal institutions, which reflects surveys of existing FCs in the European Union.

¹⁰ There is nevertheless some evidence of a link between the existence and features of fiscal councils and fiscal performance, based on dynamic panel regressions (see Debrun et al., 2008, 2013; Debrun and Kinda, 2014; and Nerlich and Reuter, 2013).

The advantage of the index is to be able to compare FCs for which little or no track record exists to FCs that have been around for a long time. The practical relevance of such exercise is immediately relevant in the European Union where the Treaty on Stability, Coordination and Governance, which came into force in January 2013, explicitly requires that an “independent body” be designated or established at the national level to monitor fiscal policy. Such body should in particular verify compliance with national fiscal policy rules and produce (or at least assess or validate) the macroeconomic and budgetary forecasts used for budget preparation in each euro area member state (Article 3, par. 2).¹¹ While it seems clear that a well-designed fiscal council qualifies as such “independent” body, the concept is vague enough to leave the door open to merely “decorative” institutions with no real value for the conduct of fiscal policy. A low score on our “signal enhancement capacity” (or SEC) index should raise alarm bells about that risk. The presumption underlying this exercise is indeed that by looking at the design features of a council one should be able to infer with reasonable precision whether they were conceived as mere smokescreens or genuine attempts to reduce informational asymmetries.

The SEC index is calculated for most countries reported in the IMF dataset, except for those where too much information is missing. It encompasses 4 main dimensions:

- **A broad mandate (sub-index M).** The mandate of the council should encompass the main sources of informational asymmetry between the public and the government, such as the accuracy of budgetary forecasts, the uncertainty about long-term pressures stemming from entitlement systems, the inaccurate costing of policy initiatives, the opacity of intergovernmental fiscal relations in highly decentralized or federal systems, etc.
- **The ability to communicate to the public (sub-index C).** The value of a signal is to be heard by all relevant stakeholders. The publication of freely accessible reports and their impact on the public debate about fiscal policy—the IMF dataset provides a staff assessment of media impact—are the main aspects of this dimension. Beyond these two aspects, one should ideally form a view on a council’s communication strategy. A good communication strategy is essential to project an image of non-partisanship and technical competence, and to translate in simple terms the complexities underlying fiscal policy measures and, possibly, the tradeoffs implied by alternative courses of action.
- **The possibility to directly interact with participants in the budget process (sub-index B).** FCs can be given direct channels of influence on budgetary choices. These include the use of its macroeconomic and budgetary forecasts for budget preparation, the obligation for governments to explain why official forecasts deviate from the FC’s own or why the government chooses to ignore the FC’s advice, or the possibility for the FC to meet regularly with decision makers. All these aspects are documented in the IMF dataset.
- **Independence from politics (sub-index PI).** Independence is essential to guarantee the signal-enhancing value of the council’s activities. Depending on the political context, all

¹¹ Similar requirements can be found in the EU Directive on “requirements for budgetary frameworks” of November 2011 and one of the Regulations of the so-called “two-pack,” which came into force in May 2013.

possible safeguards should be put in place to dispel the perception that the council is somehow embroiled in the political fray. For new institutions without pre-existing reputation, legal guarantees on the professionalism and the independence of its staff and management in performing their statutory tasks are a must. However, working independently also requires human and financial resources commensurate to the tasks and being insulated from political manipulations. Resources perceived as insufficient or vulnerable to political pressures can clearly undermine the signaling value of the council's activity, and thereby its effectiveness.¹² At the same time one must acknowledge that maintaining solid bridges between the ministry of finance and the fiscal council is key for the effectiveness of the latter. In that regard, free access to information—including potentially confidential information—is critical for the fiscal council to be able to perform its tasks.

We calculate two variants of the SEC. The first is a simple average of the score S_i obtained for all four sub-indices $i \in \{M, C, B, PI\}$ with the score calculated such that $S_i \in [0,1] \forall i$. The simple average presumes that each dimension is in its own right equally *sufficient* to give to the FC a signal-enhancing role. The higher the score the greater the FC's potential to enhance signals about fiscal policy. A second variant of the SEC gives political independence the status of a *necessary* condition for effectiveness: without it, there cannot be any signal-enhancement regardless of the council's official tasks and capacities. In that case, we define the aggregate index as:

$SEC = S_{PI} * \sum_i S_i / 3$, where S_i is the score obtained for each sub-index $i \in \{M, C, B\}$. Each S_i has been defined as follows:

- S_M is the simple average between the FC's requirement to perform ex-post analysis (0 or 1) and a fraction representing the number of specific ex-ante tasks out of a possible total of 7. These include the preparation of forecasts, the assessment of forecasts, the preparation of policy recommendations, the assessment of long-term sustainability, an assessment of the adequacy of fiscal policy, the costing of measures, and the monitoring of fiscal rules.
- S_C is the simple average between two dummy variables capturing the free publication and dissemination of reports on a website, and IMF staff assessment of the FC's impact in the media (1 if high, 0 if low).
- S_B is the simple average of dummy variables indicating various means through which the FC can interact with players in the budget process, namely the systematic (but not necessarily compulsory) use of FC's forecasts for budget preparation, the compulsory use of these forecasts, a comply-or-explain requirement for the government, formal consultations or hearings for FC management, and the possibility to block the budget process.

¹² It has been argued that independence also requires prohibiting the council from playing a normative role in the public debate—e.g., by making policy recommendations or comparing alternative policy paths. There are, however, reasons in specific political contexts to mandate the council to issue recommendations (see Debrun et al., 2013). Our assessment of independence thus simply ignores this aspect.

- S_{PI} is the product of two simple averages. The first combines individual scores on the existence of legal guarantees of independence, an assessment of the operational independence of the council, and formal guarantees of access to information. If none of these 3 conditions exist, we consider that all other aspects of independence are irrelevant. The second combines scores assessing managerial independence (i.e., safeguard on the council's budget, the right to select, employ and pay staff, a term in office strictly greater than 4 years, the appointment by Parliament or another authority than the government, and the impossibility to be reappointed), the availability of a staff commensurate to the tasks of the FC, and the characteristics of the senior management (i.e. possibly non-citizen of the country, academics and established public finance experts).

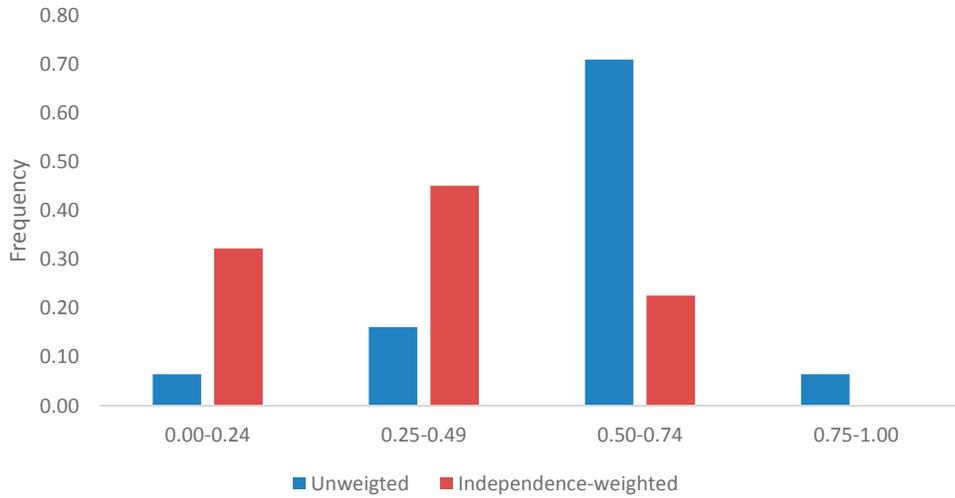
B. Results

Both the unweighted and independence-contingent indices point to significant heterogeneity among fiscal councils in terms of their a priori ability to provide clear and consistent signals about fiscal policy (Figure 4). In absolute terms, 75 percent of FCs exhibit unweighted scores ranging between 0.5 and 1 (the "perfect score"), suggesting that they often have many of the features expected from effective institutions. The cross-country dispersion is larger when independence is given greater prominence, indicating that some FCs, despite being well equipped to clarify policy signals, were not given the full political independence to do so. However, inconsistencies between the extent of the remit and political independence seem to be largely idiosyncratic, as evidenced by the strong positive correlation between a summary index capturing the remit, tasks and public output of the council, and the aggregate score on independence from politics (S_{PI}) (Figure 5).

In Figure 5, we identify 4 quadrants, using the cross country averages for each index as demarcation lines. This definition of quadrants (in relative rather than absolute terms) gives a better idea of any skewness in the joint distribution of these two main dimensions. The better designed institutions are located in the north-east quadrant, which we extended to the shaded rectangle to capture borderline cases (within $\frac{1}{2}$ a standard deviation below the mean for each index). By that simple metric, almost two thirds of fiscal councils appear to be relatively well-designed. The number falls to one half if one does not allow for borderline cases, but this still points to the broad tendency for FCs to be conceived and designed as signal enhancers.

By contrast, a quarter of the fiscal councils in the sample are well into the south-west quadrant, identifying institutions with little independence and often limited capabilities to effectively perform a signaling function. Only two of the institutions in our sample belong to the north-west quadrant that would identify relatively independent institutions with a limited remit. Similarly, two institutions exhibit a broad set of roles and functions but enjoy a degree of independence that could hinder their ability to perform these tasks in an effective manner.

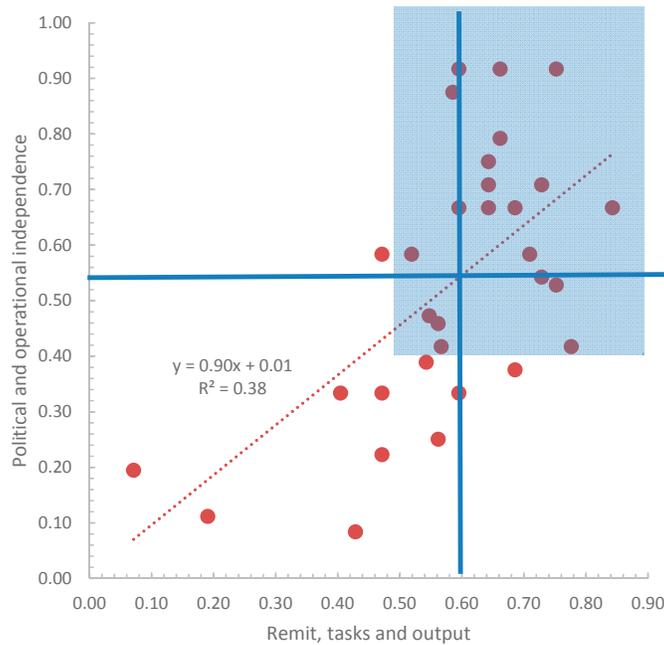
Figure 4. Assessing Fiscal Councils’ Signal-Enhancement Capacity: An Index



Sources: IMF (2015b) and authors’ calculations and corrections.

Notes: Histogram based on a sample of 31 fiscal councils. The sample includes the countries identified in IMF (2015b) as having a fiscal council, except for Germany (Advisory Board to the Stability Council), Greece, Kenya, Latvia, Lithuania, Luxembourg, South Africa, and Uganda for which too much information is missing. The entry for Germany refers to the German Council of Economic Experts, an institution created in 1963 and that only performs some of the functions of fiscal councils. The German institution corresponding to the mainstream definition of a fiscal council is the Advisory Board to the Stability Council, created in 2015, but it is not yet covered in the 2015 vintage of the dataset.

Figure 5. Independence and Signal-Enhancing Functions



Source: IMF (2015b) and authors’ calculations and corrections.

V. CONCLUSION

This chapter takes stock of the current debate on the role of fiscal councils in enhancing fiscal policy credibility. First, we develop a simple theoretical model of fiscal policy with or without a fiscal council to provide foundations to the potential influence of merely advisory institutions on the conduct of fiscal policy, and in particular the alleviation of the deficit bias. Asymmetric information between voters and elected policymakers is the central feature of the model. The model suggests that society benefits most from a fiscal council when it is able to minimize the noise surrounding signals of competence of the incumbent government. Doing so raises social welfare through two channels. First, a fiscal council can increase the likelihood of electing competent governments. Second, a fiscal council can discourage excessive deficits. Importantly, that second channel's positive impact of the fiscal council on taming the deficit bias applies regardless of the true type of government (competent or not).

Second, we map the story suggested by the model into a set of core features likely to raise the capacity of a council to effectively improve voters' understanding of existing signals about the adequacy of fiscal policy. Using the 2015 vintage of the IMF dataset on independent fiscal institutions, we assess whether existing institutions have been designed to be effective or whether they are more likely to have been conceived as smokescreens.

It appears that a strong majority of fiscal councils exhibit features—political independence and functions—that allow them to clarify existing signals about fiscal policy. A number of institutions would nevertheless benefit from stronger guarantees of independence to join the group of potentially highly effective councils, including through increased and secure resources and guaranteed access to information.

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