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No Longer Just Fiscal Watchdogs: The Evolving Role of Independent Fiscal Institutions *

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Research Article

Keywords: independent fiscal institutions, fiscal councils, fiscal rules, institutional design, fiscal governance, fiscal frameworks

Posted Date: October 26th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11331456/v1

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Additional Declarations: No competing interests reported.

No Longer Just Fiscal Watchdogs: The Evolving Role of Independent Fiscal Institutions*

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Abstract

Independent fiscal institutions (IFIs) are frequently described as "fiscal watchdogs" whose role is to monitor compliance with numerical fiscal rules. The description fits the initial role of councils created around the euro area debt crisis, but their role has evolved since. This paper studies a panel of all OECD countries from 1970–2024 and argues that the watchdog description has become increasingly incomplete. The adoption of IFIs is modelled as a discrete-time hazard and is shown to be driven by membership of the Economic and Monetary Union (EMU) and diffusion among OECD peers rather than domestic fiscal pressure. EMU membership is only weakly associated with subsequent mandate expansion, and shocks to public finances appear insignificant. Annual mandate data shows that the role of IFIs has broadened substantially and non-monotonically since the mid-1980s. A continuous decomposition of institutional strength into analytical and watchdog/enforcement capacity finds analytical capacity to be more significantly associated with both lower sovereign borrowing costs and higher documented rule compliance. The results imply modern IFIs are best understood not only as fiscal rule enforcement mechanisms, but also as evolving information-provision institutions whose analytical capacity has become more important over time.

JEL Classification: D73, E61, E62, H60, H83, H87

Keywords: independent fiscal institutions, fiscal councils, fiscal rules, institutional design, fiscal governance, fiscal frameworks

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Statements and Declarations

Compliance with Ethical Standards and Statements on Content

The views expressed in this paper are those of the author and do not necessarily reflect those of the Finnish Economic Policy Council.

The author used artificial intelligence to identify grammar issues and suggest sentence-level revisions in the manuscript. The author reviewed every suggestion and only included changes that preserved the intended meaning.

Funding and Conflicts of Interest

The author did not receive any specific funding for this research and declares no conflicts of interest.

Data Availability

The data used in the study has been compiled from the public databases of international organisations as defined in Appendix Section A. The data is available upon a reasonable request.

Acknowledgements

The author would like to thank [TBA] anonymous reviewers as well as the editors for all their suggestions and helpful comments.

1 Introduction

Independent fiscal institutions (IFIs), such as fiscal councils, parliamentary budget offices (PBOs), and similar bodies, have spread across the OECD since the global financial crisis (GFC). Their number was low before 1990, whereas a large majority of advanced countries now have one. The dominant framing in both the policy and academic literature is institutional, and IFIs are generally formed in order to constrain the deficit bias of elected governments by monitoring compliance with fiscal rules and raising the reputational cost of deviating (Calmfors and Wren-Lewis, 2011; Debrun and Kinda, 2017). This framing is captured in the informal but persistent label of "fiscal watchdogs" attached to these bodies. It fits the councils established after the GFC and during the euro area (EA) sovereign debt crisis, as many of them were created together with new numerical rules and under European Union (EU) requirements to monitor them. Older institutions were often established as forecasting, advisory or legislative support bodies and they generally began monitoring fiscal rule compliance as numerical fiscal rules became more common. The more recent PBOs were also not created to specifically be rule enforcers.

This paper argues that the watchdog framing, which was never a complete account of the IFI population, has become an increasingly incomplete description even of the councils to which it is usually applied. Drawing on a panel of establishment dates for all OECD countries and on annual institutional mandate data, the paper suggests that the decision to adopt an IFI in the first place is driven mainly by membership of the Economic and Monetary Union (EMU) and diffusion among OECD peers. This is an institutional and reputational background, rather than a narrow fiscal-crisis-driven one. EMU membership is only weakly and not robustly associated with how far an IFI's mandate subsequently expands. In the full sample, the mandate of a typical IFI is shown to have broadened substantially in the last decades. IFI presence is also correlated with lower sovereign borrowing costs, an association that holds up across two independent definitions of a monitoring mandate. A continuous decomposition of institutional strength provides further support for analytical capacity (rather than watchdog/enforcement capacity) being the dimension significantly associated with both lower borrowing costs and higher documented compliance.

While monitoring compliance with fiscal rules remains an important function of many IFIs, this paper argues that treating them primarily as fiscal watchdogs has become an increasingly incomplete

description of their evolving role. Over the past two decades, IFIs have acquired responsibilities extending well beyond rule monitoring, including the production and assessment of macroeconomic and fiscal forecasts, analysis of fiscal risks, long-term sustainability assessments, and evaluations of broader fiscal frameworks. These activities have a common objective of reducing informational asymmetries between governments, legislatures, financial markets, and the public. Therefore, the paper studies whether the evolution of IFIs is better understood as the development of institutions that improve the informational environment of fiscal policymaking rather than simply institutions that monitor compliance with fiscal rules.

Beyond the main results, the paper discusses implications for supranational fiscal governance architecture from monitoring mandates, especially in the EU's fiscal framework. This discussion is qualitative due to challenges with statistically separating EU-specific institutional effects from broader EA dynamics. The paper also examines whether a strong IFI and a binding fiscal rule are more effective together than either alone.

The three empirical parts support each other and provide a broad picture of the history of IFI adoption and their subsequent development and effects. Section 4 studies why and when countries adopt an IFI. Its main result is that adoption timing is driven by EMU membership and peer diffusion. This provides the baseline against which later changes in mandates are interpreted, and reduces the concern that IFI presence simply proxies for fiscal distress in the outcome regressions. Section 5 then studies how mandates have developed after adoption and whether this development diffuses among peers in the same way as adoption. Section 6 uses the resulting measures of IFI presence, mandate type, and analytical and enforcement capacity to ask which of these features are associated with borrowing costs, fiscal balances and rule compliance.

The remainder of the paper is organised as follows. Section 2 reviews the literature, including the different motives behind the establishment of IFIs and how the definition of an IFI has evolved. Section 3 describes the data and the limitations of the mandate measures. Sections 4 to 6 present the three parts of the empirical analysis, and Section 7 concludes.

2 Literature

Much of the existing economics literature and the conventional definition primarily conceptualise IFIs as mechanisms or institutions supporting fiscal rules through monitoring, compliance and increasing the reputational cost of fiscal deviations. This perspective has been used to study the role of fiscal institutions in promoting budgetary discipline.

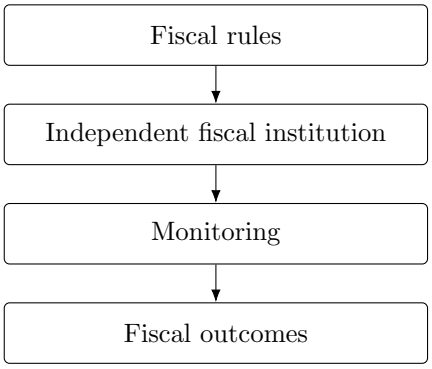
This paper argues that this characterisation captures only part of modern IFIs, which increasingly improve the fiscal information environment through independent analytical functions. Figure 1 presents this change and the central argument of the paper. The analytical functions strengthen fiscal credibility and ultimately contribute to improved fiscal outcomes by reducing informational asymmetries surrounding fiscal policy. The argument is for a complementary role rather than contradictory one, as monitoring remains a central component in the mandates of many IFIs, but it no longer captures the breadth of their institutional role. Over the past two decades, IFIs have increasingly acquired responsibilities that focus on the production, evaluation and dissemination of independent fiscal information, including macroeconomic and fiscal forecasting, fiscal risk analysis, long-term sustainability assessments and public analytical reporting. These activities are united by a common objective of reducing informational asymmetries surrounding fiscal policy.

This broader perspective suggests that IFIs influence fiscal outcomes not only through improved compliance with fiscal rules, but also by enhancing the quality and credibility of fiscal information available to governments, legislatures, financial markets and the public[1]. The empirical analysis that follows is consistent with this interpretation and suggests that the informational role of IFIs deserves greater attention in the literature.

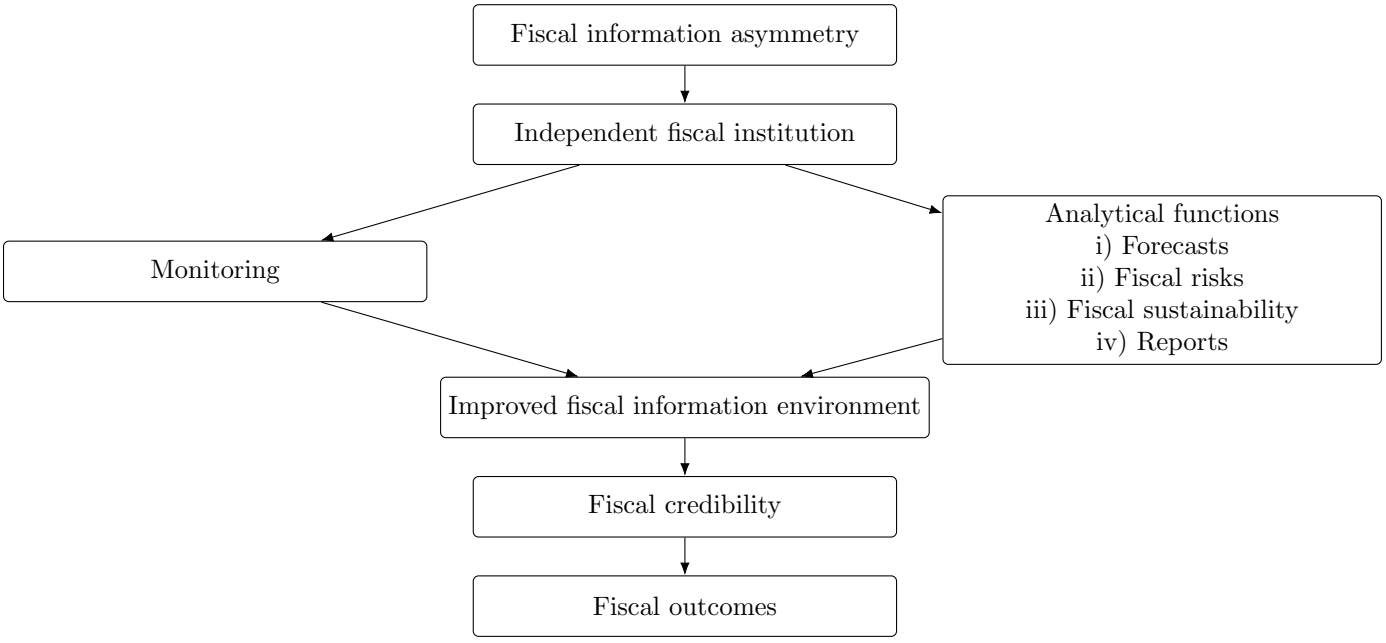
[1]For example Schjøtt-Pedersen (2026).

Figure 1: From compliance to information: the evolving economic role of independent fiscal institutions.

(a) Conventional perspective



(b) Perspective advanced in this paper



Existing research on IFIs generally examines why governments establish IFIs (typically emphasising political commitment, fiscal rules and delegation), or whether IFIs improve fiscal outcomes such as budget balances, debt dynamics, or forecast accuracy. More recent literature documents the

growing diversity of IFI mandates, and this paper contributes primarily to this field by arguing that the institutional evolution has developed faster than the conceptual language used in economics.

The classic theoretical case for IFIs rests on a deficit-bias argument closely related to (but distinct from) the case for independent central banks. Elected governments face a systematic incentive to under-price the future cost of current deficits, and a non-partisan body that raises the reputational cost of deviating from sustainable fiscal plans can partially correct this bias (Von Hagen and Harden, 1995; Debrun et al., 2009; Larch and Braendle, 2018). Calmfors and Wren-Lewis (2011) provide the canonical statement of what fiscal councils should do, concluding that they function best as advisory complements to fiscal rules, and identifying reputation-building, formal national rules, and international monitoring as the three routes by which councils sustain their independence over time.

The distinction is more than semantic. Monitoring compliance with fiscal rules is one mechanism through which IFIs may influence fiscal policy, but it is not the only one. The production of credible forecasts, fiscal risk analysis, and independent assessments of government projections may affect policy by reducing informational asymmetries between legislators, financial markets, and voters. These functions are conceptually closer to the economics of information than to the economics of enforcement. Recognising this distinction helps explain why many contemporary IFIs devote substantial resources to analytical activities that are only indirectly related to monitoring numerical fiscal rules.

Some of the empirical literature has studied whether IFIs actually improve fiscal outcomes. Debrun and Kinda (2017) note a positive association between council presence and the primary balance, while explicitly noting that reverse causality cannot be ruled out. Beetsma et al. (2019) extend this work and find that council presence is associated with more accurate budgetary forecasts, but also note that there is a potential of self-selection into adoption. Jonung and Larch (2006) make a case for the specific value of independent forecasting as the governments' own growth forecasts are shown to be systematically biased in ways consistent with political motivation, and forecasts produced by an independent body are argued to serve budget monitoring better than in-house ministry forecasts. Frankel and Schreger (2013) extend this logic across a wider sample of EA countries and find that the over-optimism in official forecasts is lower where independent forecasting institutions exist, and this is empirical evidence for the specifically informational (as opposed to enforcement)

channel through which IFIs might matter, and implies that non-monitoring functions have actual effects.

2.1 Different origins, different types of IFI

The watchdog label is historically a poor description for the reasons behind the creation of many IFIs. There are at least three different underlying reasons and they correspond broadly to different institutional types with different mandates.

The first group consists of older forecasting and advisory bodies operating alongside the executive. As examples, the Belgian High Council of Finance, the Netherlands CPB and the Danish Economic Council were established to provide forecasts and policy advice to governments. Their core tasks were macroeconomic forecasting and the analysis of policy options. Monitoring of numerical fiscal rules was added to some of these mandates much later, largely as a consequence of EU requirements.

The second group consists of PBOs, which are attached to the legislature. The first notable case was the US CBO, created by the Congressional Budget and Impoundment Control Act of 1974. It followed a period in which the administration had declined to spend funds appropriated by Congress, and its purpose was to give Congress budgetary expertise independent of the executive (Joyce, 2011). Mexico's Centre for Public Finance Studies was created in 1998, and the budget offices of the Republic of Korea (2003), Canada (2008) and Australia (2012) were likewise intended to strengthen the legislature's position in the budget process. The motive in these cases is the balance of power between the executive and the legislature (Wehner, 2006; Von Trapp et al., 2016), and the costing of policy proposals and analytical support to legislators are the central functions. Numerical rules generally came later. In the United States, the CBO was established over a decade prior to the Gramm–Rudman–Hollings deficit targets of 1985.

The third group consists of fiscal councils established after the GFC and during the EA sovereign debt crisis, mostly in the EU. These were typically created together with new national numerical rules under the Six-Pack, the Fiscal Compact and the Two-Pack, and their establishment reflected governments' concern with the credibility of fiscal policy to financial markets and EU partners. The watchdog label applies most naturally to this group, which accounts for a large share of adoptions in the OECD after 2010. Analytical tasks were part of their design from the beginning.

The distinction matters for the empirical analysis as the drivers of adoption plausibly differ between PBOs and fiscal councils, so that a pooled adoption model mainly describes whichever group dominates the timing of adoptions. In the OECD panel this is the third group. PBO-type institutions tend to have mandates centred on costing and legislative support, whereas fiscal councils have more macro-fiscal mandates, and the mandate measures available on an annual basis (Section 3) capture the latter.

It is also worth noting that the enforcement of fiscal rules does not explicitly require an IFI. Courts can be the effective enforcer if rules are constitutional. The most recent notable example comes from Germany, where the German Federal Constitutional Court declared the Second Supplementary Budget Act 2021 void, in part for breaching the constitutional debt brake. The resulting gap in the federal budget contributed to the collapse of the governing coalition in late 2024, and the debt brake itself was amended in 2025. This implies that in some cases the most consequential enforcement of a fiscal rule can come from a court rather than from an IFI, which is a further reason not to equate IFIs with rule enforcement.

2.2 Yardstick competition and the diffusion of fiscal institutions

The empirical analysis in Section 4 studies the timing of IFI adoption and concludes it is predicted overwhelmingly by what OECD peers are doing, largely independent of a country's own fiscal environment. This pattern is consistent with the theoretical framework of the yardstick-competition literature. Besley and Case (1995) model incumbent politicians operating in a multi-jurisdictional setting where voters, facing imperfect information about their own government's competence, benchmark its performance against neighbouring jurisdictions rather than evaluating it in isolation. Incumbents, anticipating this comparison, are induced to match the policies and institutions that peer governments adopt, since falling visibly behind invites an unfavourable comparison at the ballot box regardless of whether domestic conditions independently warrant the policy in question.

This logic can be applied to construct a political economy basis for the peer-diffusion result for fiscal institutions in Section 4 that does not require any particular domestic fiscal trigger. If voters use the presence of an IFI in comparable countries as a benchmark for judging their own government's commitment to fiscal responsibility, incumbents have an incentive to adopt one simply

to avoid an unfavourable comparison, even without any acute domestic fiscal challenges. Yardstick competition is not the only mechanism consistent with this pattern as EU/EMU membership commitments, discussed in Section 2.5, plausibly operate alongside it. However, it offers a political (rather than purely fiscal or legal) explanation for why institutional adoption clusters in time across otherwise heterogeneous countries.

2.3 From watchdog to information provider: an evolving definition

The label "fiscal watchdog" captures only one of the functions that contemporary IFIs perform, and a definitional shift in how these institutions are described can be traced across several distinct areas of the literature, each emphasising a different underlying mechanism. Debrun et al. (2013) offer a functions-based taxonomy that already moves beyond pure rule-monitoring, encompassing forecasting, costing of policy proposals, and public communication alongside compliance assessment. Craig and Kopits (1998) discuss fiscal transparency more broadly, but also mention independent scrutiny of government accounts within a wider transparency agenda. This is also noted in Von Trapp et al. (2016), who anticipate a broadening of IFI functions toward forecast assessment, costing, and public communication as a matter of institutional design principle. Hallerberg et al. (2009) consider independent fiscal bodies within a broader typology of fiscal governance arrangements, comparing the delegation to an independent authority with negotiated multi-year contracts among coalition partners, in which monitoring is one tool among several for centralising budgetary discipline.

These different framings can be combined by thinking of IFIs as institutions that reduce fiscal information asymmetries between governments, legislatures, financial markets, and citizens. Governments typically possess more detailed information about the true state of public finances, and IFIs can narrow this informational advantage by producing credible, non-partisan analysis, which in turn allows legislatures, markets, and voters to hold governments to account more effectively. This framing is grounded in the same information economics logic that motivates Jonung and Larch (2006) and Frankel and Schreger (2013), and it is broad enough to include fiscal councils, PBOs, and audit-based institutions across very different national settings, without emphasising the compliance-monitoring function. It also motivates the empirical questions studied in this paper. If an information-asymmetry channel is what actually matters, IFIs without a narrow monitoring mandate should not be expected to matter systematically less than those with one.

Fiscal transparency and the production of credible fiscal information has many of the characteristics of a public good whose benefits extend well beyond the immediate users of fiscal information. Reliable and timely fiscal information reduces information asymmetries, and facilitates more informed decision-making and improving the functioning of democratic and market institutions. The production of high-quality fiscal information is costly while its benefits are largely non-rival and difficult to appropriate privately, so governments may underinvest in transparency unless institutions are specifically mandated to produce and disseminate credible fiscal information. IFIs can be interpreted not merely as watchdogs that monitor compliance with fiscal rules, but as institutional mechanisms for supplying a public good of credible fiscal information. Their value is not only related to constraining policymakers, but also in reducing uncertainty, lowering monitoring costs, and strengthening the informational foundations upon which fiscal discipline and democratic accountability depend. This interpretation is also consistent with broader theories of delegation in political economy, whereby governments establish independent institutions to enhance the credibility of policy commitments in environments characterised by information asymmetries and time inconsistency. While central banks delegate monetary policy, IFIs may instead delegate the production and certification of fiscal information, which should improve the informational environment within which fiscal policy is formulated and evaluated.

In the remainder of the paper informational function refers to what an IFI produces (forecasts, assessments of official projections, costings, analysis of fiscal risks and sustainability, and their publication), and analytical capacity to the empirical index of this function used in Section 6.4. The enforcement function refers to monitoring compliance with numerical rules and triggering consequences when they are breached, and watchdog/enforcement capacity is its empirical counterpart. A monitoring mandate is the narrower binary indicator of whether an independent body is formally tasked with monitoring rule compliance. Credibility is reserved for an outcome, namely the extent to which markets and other observers believe that announced fiscal plans will be carried out. Both functions can contribute to it, and the empirical question is which of them does.

2.4 Delegation and the credibility of commitment

The information-asymmetry framing is a description of what IFIs do. Delegation theory can potentially explain why governments choose to create them in the first place, as well as provide a

framework of studying IFIs within a broader public choice literature on when elected principals rationally grant authority to non-elected agents. Majone (2001) distinguishes two distinct logics of delegation to non-majoritarian institutions: an efficiency logic, in which authority is delegated to utilise the superior technical competence of an agent, and a fiduciary or credibility logic, in which authority is delegated specifically to protect a policy commitment from the delegating principal's future temptation to not adhere to earlier decisions. Independent central banks are the paradigmatic example of the second logic, as monetary policy is delegated not because elected governments lack the technical capacity to set interest rates, but because a government that retained full discretion could not credibly commit to low inflation in case it might later prefer a surprise expansionary impulse.

IFIs involve both logics simultaneously, and disentangling them is informative about the central argument of this paper. The classic watchdog function is closest to the fiduciary logic, i.e. a government commits to a fiscal rule but cannot credibly commit to honestly reporting its own compliance. Therefore, an independent monitor is delegated to the task in order weaken the temptation of non-compliance. The broader analytical functions documented in Section 5 are closer to the efficiency logic, as producing a credible macroeconomic forecast or a structural balance estimate requires technical capacity that a government/ministry may already possess, but that an independent body can supply with greater impartiality. Alesina and Tabellini (2007) formalise a closely related version of this choice, showing that delegation to a non-elected bureaucrat is normatively preferable specifically for technical tasks in which ability matters more than effort, or where voters have substantial uncertainty about whether the elected policymaker possesses the relevant competence. This is a condition that describes fiscal forecasting and public finance sustainability analysis at least as well as it describes rule compliance monitoring.

This distinction offers a delegation-theoretic approach to the central empirical puzzle of this paper. If IFIs were created purely to solve a fiduciary commitment problem, there would be little reason to expect the informational functions documented in Section 5 to matter for the outcomes examined in Section 6, since those functions do not remove any government temptation to misreport. With the IMF monitoring flag, the borrowing cost results in Section 6.2 are at least as strong for institutions without a documented monitoring mandate as for those with one, and this suggests that the efficiency logic (i.e. delegation of a technical task where credible performance is valuable

independent of any enforcement role) may be as important in practice as the fiduciary logic that motivated the original watchdog framing. Based on this, governments and financial markets appear to value IFIs not only for the commitment problem they solve, but also for the technical capacity they supply.

2.5 The EU fiscal framework as a bundled institutional architecture

A substantial share of the development of the monitoring mandates of IFIs in OECD countries comes from EU and EA member states. This is due to the legislative history of the Stability and Growth Pact[2]. This paper does not attempt to statistically separate a specifically EU-driven institutional effect from broader macroeconomic dynamics over the same period. It is more informative to discuss the EU's fiscal governance architecture as a single, evolving institutional package rather than as a treatment that can be cleanly studied econometrically.

The European Fiscal Board (EFB), operational since October 2016, is a useful source as to how this architecture has evolved and where it still falls short. Its early annual report (European Fiscal Board, 2018) already notes that an effective IFI role requires both free access to relevant information and a comply-or-explain relationship with national governments. The EFB's recent assessment (European Fiscal Board, 2025) of the EU's reformed fiscal framework finds that formal IFI involvement in preparing the first round of medium-term fiscal-structural plans remained limited in practice, even as the legal architecture around them was substantially rewritten. This is worth noting as a counterpoint to the narrative of growing IFI roles in the conduct of fiscal policy. Mandates have broadened on paper, but the EFB suggests that broader formal powers have not automatically translated into broader practical influence, at least not yet.

Most of the existing work treats IFI presence as a static 0/1 dummy variable. This paper constructs a mandate-breadth measure that varies within country over time and covers the full OECD. The institutional-choice stage of adoption is modelled explicitly, using survival-analysis methods. The annual mandate data from the IMF Fiscal Rules dataset (Alonso-Albarran et al., 2025) are used to track the within-institution evolution of IFI functions, which, to the best of the author's knowledge, has not previously been done. Finally, institutional strength is decom-

[2]Especially the Six-Pack and Two-Pack sets of reforms, which required EA member states to have an independent body for monitoring compliance with numerical fiscal rules. The IFI requirement was extended to all EU countries in the 2024 reform.

posed into separate analytical and watchdog/enforcement capacity indices, rather than treated as a single monitoring-mandate indicator, allowing the two dimensions to be tested against outcomes independently.

3 Data

The panel of the study covers all 38 OECD member countries. All the macro-fiscal variables used (see Appendix A for definitions and sources) span 1970–2024, subject to country-specific availability.

IFI establishment and Mandate data

IFI establishment years and institution names were compiled from public Fiscal Council datasets (Debrun et al., 2013; Beetsma et al., 2019; Alonso-Albarran et al., 2025). The IMF Fiscal Rules dataset (Alonso-Albarran et al., 2025) also provides annual data on whether an independent body sets or assesses the official budget forecast assumptions, monitors implementation of and compliance with numerical fiscal rules, operates under fiscal responsibility legislation with explicit transparency provisions, and requires publication of a medium-term fiscal framework. These four binary indicators are used to build a mandate breadth score (0 to 4) for each IFI-country-year.

The four indicators are the IFI-related variables that the IMF Fiscal Rules dataset records annually, and the breadth score inherits two limitations from that source. It omits several functions that are central to many IFIs, including the costing of policy proposals and election platforms, analytical support to individual legislators, pre-election fiscal reports and long-term sustainability analysis. The score understates the breadth of PBO-type institutions such as the US CBO and the Australian and Canadian PBOs, where mandates are built around costing and legislative support. The dataset is also organised around numerical rules, and two of the four indicators (transparency provisions in fiscal responsibility legislation and the publication of a medium-term fiscal framework) describe the fiscal framework within which an IFI operates. This means that the study concentrates on the breadth of an IFI's role within a rules-based fiscal framework, and it is related by construction to the existence of such a framework. The implications of this for the results are discussed in Section 6.5.

The underlying dataset begins in 1985, so mandate breadth is observed beginning from that

year. There are five countries with IFIs established earlier (Austria, Belgium, Denmark, Germany, and the Netherlands), and in these cases the paper considers mandate breadth as of 1985 onward. The same dataset is also used to construct a binary indicator for whether there are any binding national numerical fiscal rules in force as well as a measure of whether the country complies with all active rules in force for each year of the sample.

In the later part of the sample, IFIs and binding numerical fiscal rules usually coexist, and a large majority of the 38 OECD countries have an IFI at the end of the sample. This was not the case earlier, when several IFIs operated before any national numerical rule was in place. Switzerland is a rare exception as it has had a constitutional debt brake in force since 2003 without a dedicated IFI.

4 Why and When Are IFIs Adopted?

Understanding why countries establish IFIs is the first step for analysis, because the institutional objectives present at establishment provide the baseline against which subsequent changes in mandate can be interpreted.

The year of first IFI adoption is modelled as a discrete-time hazard, following Beck et al. (1998). The risk set in a given country-year is restricted to years before that country's own adoption (if any). The event indicator equals one in the adoption year. Both a complementary log-log specification and a logit robustness check are estimated, with and without a flexible cubic polynomial in years since the start of the risk spell, to allow for non-monotonic duration dependence.

Columns 1 and 2 in Table 1 imply that adoption timing is dominated by EMU membership and peer diffusion, both essentially independent of a country's own domestic fiscal position in a given year. None of the three domestic fiscal-crisis proxies (a sharp rise in debt, a deteriorating headline balance, or a spread spike) is statistically significant in any specification, although the coefficients have the theoretically expected sign. When flexible duration-dependence terms are added in column 3, the peer-diffusion coefficient is no longer statistically significant, while EMU membership remains significant throughout. This implies that peer diffusion and the shape of the baseline hazard are partially collinear, since both capture (in different functional forms) the same secular rise in adoptions through the 2000s and 2010s. EMU membership is accordingly the single

Table 1: Discrete-Time Hazard Model, Adoption of an Independent Fiscal Institution

	(1)	(2)	(3)
	1 = first year with an IFI		
Debt rose sharply (above 75th pctile)	0.545	0.596	0.441
	(0.462)	(0.484)	(0.420)
Headline balance worsened y/y	–0.792	–0.810	–0.779
	(0.501)	(0.534)	(0.505)
Long rate rose >1pp y/y	–0.093	–0.137	–0.027
	(0.687)	(0.702)	(0.716)
Share of OECD peers with an IFI	4.491***	4.504***	3.740
	(1.086)	(1.119)	(3.122)
EMU member	2.328***	2.324***	1.524***
	(0.499)	(0.500)	(0.576)
Years since risk spell began, linear			–0.853***
			(0.262)
squared			0.038***
			(0.011)
cubic			–0.0004***
			(0.0001)
Observations	991	991	991

Notes: Column 1 complementary log-log; column 2 logit robustness check; column 3 complementary log-log with duration dependence. Control variables: trade openness, old age dependency ratio. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

most robust driver of adoption timing in this dataset, with peer diffusion a strong but somewhat less robust second factor. The duration-dependence terms point to a hump-shaped hazard, i.e. low in the earliest years of a country's exposure to the possibility of adoption, rising through the 1990s and 2000s, and diminishing as the pool of non-adopters shrank.

If adoption was driven mainly by domestic fiscal pressures, IFI creation could be a signal of underlying fiscal weakness. This would mean that any observed association between IFI presence and favourable fiscal outcomes would suffer from potential selection bias. The results in Table 1 imply that the timing of IFI adoption looks like an institutional and reputational choice tied to EU/EMU commitments and to what peer countries are doing for most of the OECD. This does not completely resolve endogeneity challenges, but it does mean that the selection aspect is institutional rather than macroeconomic in character.

The absence of a domestic fiscal trigger does not imply that IFIs should be expected to have no effect once established. A similar case comes from central bank independence. Many EU countries granted their central banks statutory independence in the 1990s to meet the requirements of the Maastricht Treaty rather than in response to domestic inflation, but this does not make independence irrelevant for subsequent monetary credibility. In the same way, the external origin of most IFI adoptions is informative mainly about selection as it makes it less likely that the associations reported in Section 6 are because IFIs were created in countries that were already in fiscal difficulty.

This institutional and reputational narrative of adoption is consistent with the yardstick-competition mechanism discussed in Section 2.2, i.e. that incumbents facing voters who benchmark fiscal governance against peer countries have an electoral incentive to adopt an IFI once enough comparable countries have one, independent of their own government's private assessment of domestic fiscal risk. The empirical dominance of peer diffusion over the domestic fiscal-distress proxies in Table 1 appears to be a specific and well-established political mechanism.

The hazard model pools all IFIs, although Section 2.1 suggests that PBO-type institutions and fiscal councils were adopted for different reasons. The EMU coefficient mostly describes the fiscal council wave after the GFC. The main PBO adoptions in the panel, in the United States, Mexico, Republic of Korea, Canada and Australia, occurred outside the EA and are better explained by changes in executive–legislative relations. The results in Table 1 should accordingly be interpreted

as a description of the dominant, largely EU-centred wave of adoptions rather than of IFI adoption in general.

A descriptive specification (Appendix Table A.3) examines the circumstances surrounding a small set of individually documented reforms to existing IFIs, and finds no significant predictors. The underlying sample of identifiable reform episodes is small and does not support any definitive conclusions.

5 How Does the Mandate Develop?

If IFIs were intended solely as fiscal watchdogs, their functions would be expected to remain largely stable once established. A systematic expansion of mandates into forecasting, analytical assessment and fiscal risk evaluation would suggest that governments (and potentially supranational institutions) increasingly value IFIs for their contribution to the production and dissemination of fiscal information.

5.1 Mandate breadth over time

Figure 2 shows a mandate trajectory that is not monotonic, though the early part of that trajectory should be interpreted with some caution. Average breadth among IFI-holding countries starts at roughly two of four functions in the mid-1980s, reflecting the handful of older, already-multifunctional institutions, dips to a low point in the early-to-mid 2000s, and then increases sharply and persistently from 2005, reaching almost 2.5 of 4 functions by the end of the sample. This increase coincides closely with the run-up to and aftermath of the GFC and the associated EU fiscal governance reforms discussed in Section 2.5.

The population-weighted average indicates that the early wave of narrow-mandate IFIs was disproportionately a smaller-country phenomenon, while larger OECD economies were, on average, later and broader adopters. Additionally, the adoption-share line rises in a manner that closely parallels the breadth line and reaches about 80 percent of OECD countries with an operating IFI by the end of the sample with the steepest increase (again) concentrated around the GFC. Unlike mandate breadth, the adoption-share line is built directly from establishment dates rather than from the four mandate components. The extensive margin (whether a country has an IFI at all)

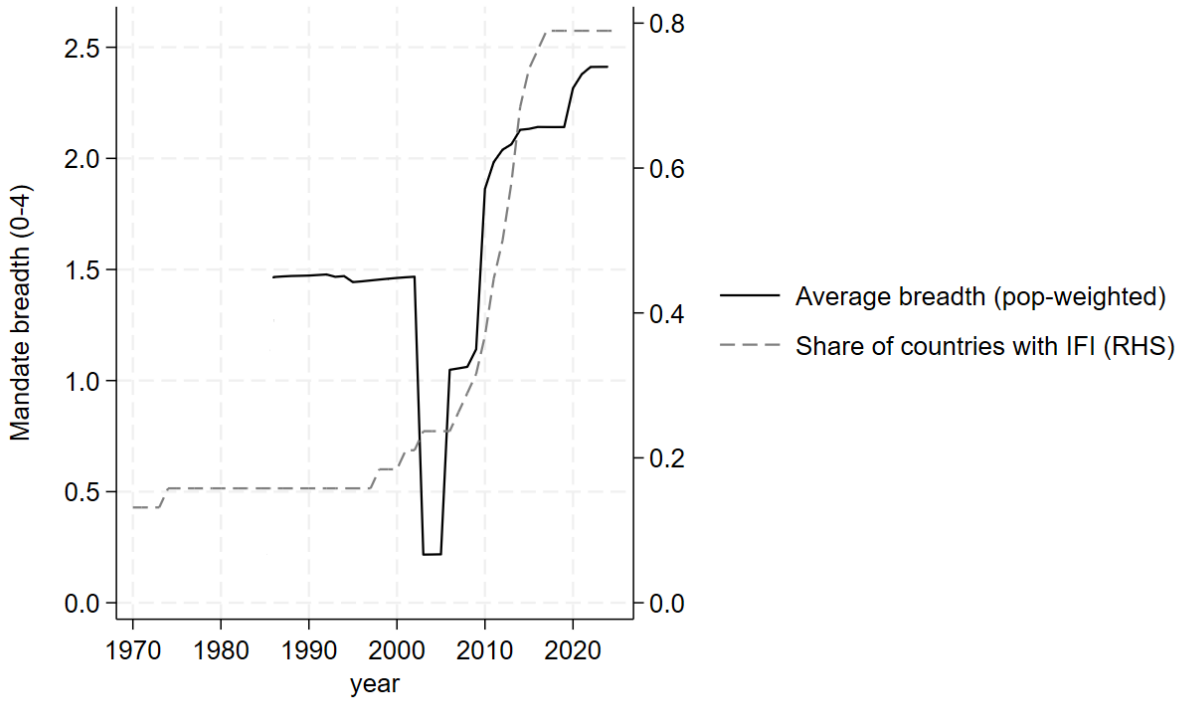


Figure 2: IFI mandate breadth and adoption share over time, 1970–2024. The solid line is the country population weighted average mandate breadth (0–4) among OECD country-years with an operating IFI. Breadth sums four documented functions: forecast-assumption role, rule-monitoring role, fiscal responsibility law transparency provisions, and medium-term fiscal framework publication. The dashed line (right-hand axis) is the share of the 38 OECD countries with an operating IFI. Mandate breadth is observed from 1985. Sources: IFI establishment dates from Debrun et al. (2013), Beetsma et al. (2019) and Alonso-Albarran et al. (2025); mandate indicators from the IMF Fiscal Rules dataset (Alonso-Albarran et al., 2025).

and the intensive margin (how broad that IFI's mandate is) therefore appear to move together over this period, consistent with the same set of EU/EMU and peer-diffusion effects noted in Section 4 operating on both margins simultaneously.

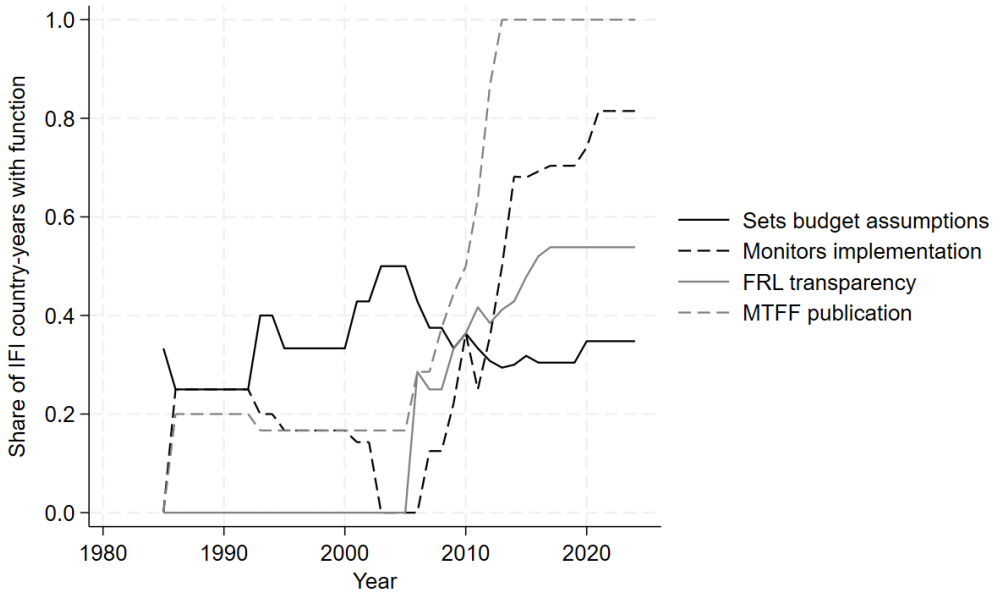


Figure 3: Composition of IFI mandate functions over time, 1985–2024. FRL = fiscal responsibility laws, MTFF = medium-term fiscal framework. Each line is the share of IFI-holding OECD country-years in which the corresponding function is present. Source: IMF Fiscal Rules dataset (Alonso-Albarran et al., 2025).

Figure 3 decomposes the aggregate trend into its four underlying functions, and shows that the broadening documented above is not evenly distributed across functions. Publication of a medium-term fiscal framework reached full coverage among IFI-holding countries by the early 2010s and has remained there since. It is, in this sense, the function that diffused fastest and furthest. The rule-monitoring role followed a similar but slightly delayed trajectory, reaching over 80 percent of IFI-holding country-years by 2024. Transparency provisions in fiscal responsibility laws (FRL) and the forecast-assumption role diffused more slowly and remain the least universal functions, at half and one third respectively by the end of the sample. This ordering is informative as the classic watchdog function (rule monitoring) is not the function that diffused fastest, and the forecast-assumption role that is often taken to define the analytical, information-provision side of IFIs remains the rarest of the four. The aggregate breadth trend in Figure 2 contains considerable heterogeneity in which specific functions IFIs have actually adopted.

5.2 Does mandate breadth diffuse among peers?

Section 4 finds that the decision to adopt an IFI diffuses strongly among OECD peers. A natural follow-up question is whether mandate breadth, once a country has an IFI, diffuses in the same way, i.e. whether countries broaden their own institution's scope when peers are doing the same.

Table 2: Does Mandate Breadth Diffuse Among OECD Peers? Contemporaneous versus Lagged Peer Measure, Year Fixed Effects versus a Smooth Trend

	(1)	(2)	(3)
	Mandate breadth (0–4)		
Average mandate breadth of other IFI-holding OECD peers, same year	–4.491***		
	(0.366)		
Lagged (t–1) average mandate breadth of other IFI-holding OECD peers		–4.039***	0.540***
		(0.278)	(0.172)
EU member	–0.468	–0.336	0.287*
	(0.407)	(0.312)	(0.159)
EMU member	0.144	0.144	0.031
	(0.136)	(0.119)	(0.226)
Country fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	No
Linear and quadratic year trend	No	No	Yes
Observations	412	389	389

Notes: Columns 1 and 2 replace the contemporaneous peer measure with its one-year lag to break the mechanical link described below; column 3 uses the same lagged measure but replaces year fixed effects with a linear and quadratic year trend. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

The peer-diffusion coefficient in columns 1 and 2 of Table 2 is statistically significant and negative. It is worth noting that the peer variable is constructed as a leave-one-out average of mandate breadth among other IFI-holding countries in the same year, and once year fixed effects are included (which already absorb the common time trend documented in Figure 2). Replacing the contemporaneous peer measure with its one-year lag in column 2 breaks this mechanical link, but the lagged coefficient remains large, negative, and statistically significant.

Column 3 replaces year fixed effects with a smooth linear-and-quadratic year trend, which nets out the common secular rise in mandate breadth documented in Figure 2. The approach flips the lagged peer coefficient from significantly negative to significantly positive. This suggests that year fixed effects are the reason for the negative sign. The smoother trend lowers potential collinearity

from the year fixed effects, and the coefficient matches what the expected diffusion result would be. However, it is prudent to not consider the peer-diffusion result in column 3 to be conclusive.

The EU and EMU membership coefficients are not subject to the same mechanical concern, since neither is constructed from other countries' own breadth. EMU membership is not statistically significant in any of the three cases. This implies that EMU membership is the most robust predictor of adoption timing in Section 4, but it does not predict mandate breadth. This means that the institutional effect from EMU membership is strongest at the extensive margin of whether a country adopts an IFI. However, it is weak and specification-dependent at predicting how far an existing mandate subsequently grows, and non-existent when explaining the level of mandate breadth a country's IFI has reached at any given time net of the common time trend and peer composition.

This interpretation is consistent with adoption being substantially a political and legislative decision, often driven by EU/EA accession commitments and the kind of peer benchmarking discussed in Section 2.2. The subsequent build-out of an institution's analytical and enforcement functions appears to be a more idiosyncratic, technocratic process internal to each country, affected by factors outside the covariates studied in this paper, and not affected by the same external political pressure that got the institution created in the first place. Therefore, it is prudent to not make strong conclusions about what actually drives the intensive margin of IFI development.

5.3 Individual IFI case studies

Following the case-study approach of Calmfors and Wren-Lewis (2011), who examined the Swedish Fiscal Policy Council and the UK Office for Budget Responsibility (OBR) individually, long-term interest rates are presented around the founding year of five widely discussed institutions, chosen to span a range of founding circumstances: two normal, non-crisis reforms in the United Kingdom and Sweden, one clean institutional upgrade in Chile, and two created during the EA sovereign debt crisis, Ireland and Spain.

The UK's OBR was established in 2010 by the incoming coalition government, and is widely regarded as one of the more independent and well-resourced IFIs in the OECD. Sweden's Fiscal Policy Council was created in 2007 in normal economic circumstances, reflecting a longer domestic tradition of technocratic fiscal oversight rather than any acute crisis. Chile's Autonomous Fiscal

Council replaced a narrower pair of advisory expert panels in 2019, marking a clear upgrade from an informal advisory arrangement to a statutorily independent body with its own dedicated resources.

Figure 4: United Kingdom: long-term interest rate around OBR establishment (2010). Annual long-term (10-year) government bond yield, per cent. The dashed vertical line marks the establishment year.

Ireland's Fiscal Advisory Council (IFAC) and Spain's Autoridad Independiente de Responsabilidad Fiscal (AIReF) were both created under very different circumstances, in the midst of the EA sovereign debt crisis. IFAC was established in 2011, in the wake of Ireland's own banking collapse and the associated EU-IMF-ECB financial assistance programme, with the creation of an independent fiscal advisory body among the programme's conditions. AIReF followed in 2013 against the backdrop of Spain's 2012 European financial assistance for bank recapitalisation and the EU's own Two-Pack requirement for EA member states to have an independent monitoring body in place.

Taken individually, these figures provide counterpoint against interpreting the panel results as strongly causal. A consistent pattern emerges across all five, and this provides a wider outlook than any single case on its own. In the United Kingdom (Figure 4) and Sweden (Figure 5), long-term rates were already on a decades-long secular decline well before the institution's founding, with no visible direct effect from establishment, which is exactly the pattern that would be expected if global disinflation and falling real rates, rather than the institution itself, were doing the work. Chile (Figure 6) shows a sharp apparent break around 2019–2020, but this window coincides almost exactly with the global collapse in long-term rates during the pandemic. Ireland's case (Figure 7)

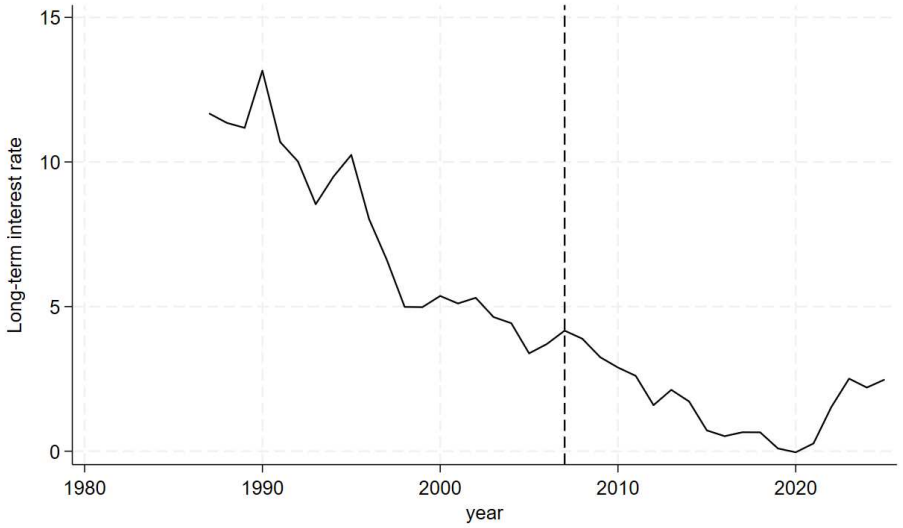


Figure 5: Sweden: long-term interest rate around Fiscal Policy Council establishment (2007). Annual long-term (10-year) government bond yield, per cent. The dashed vertical line marks the establishment year.

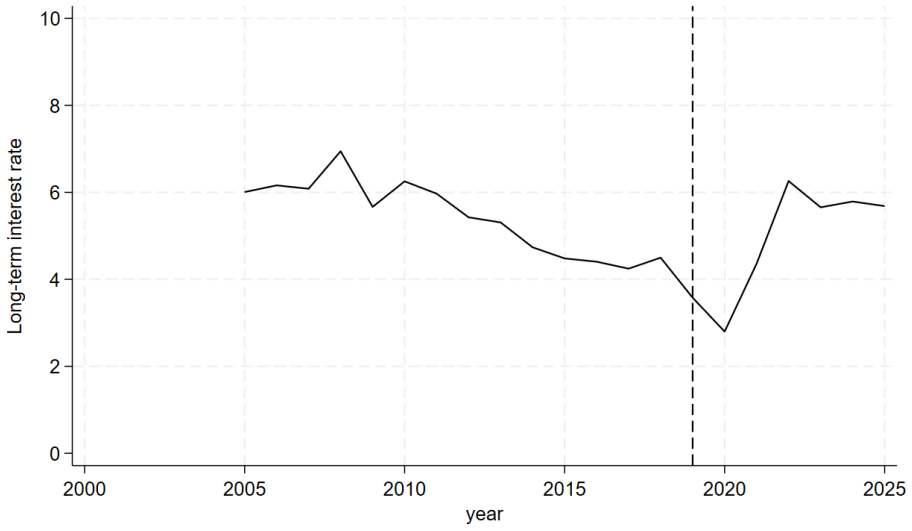


Figure 6: Chile: long-term interest rate around Autonomous Fiscal Council establishment (2019). Annual long-term (10-year) government bond yield, per cent. The dashed vertical line marks the establishment year.

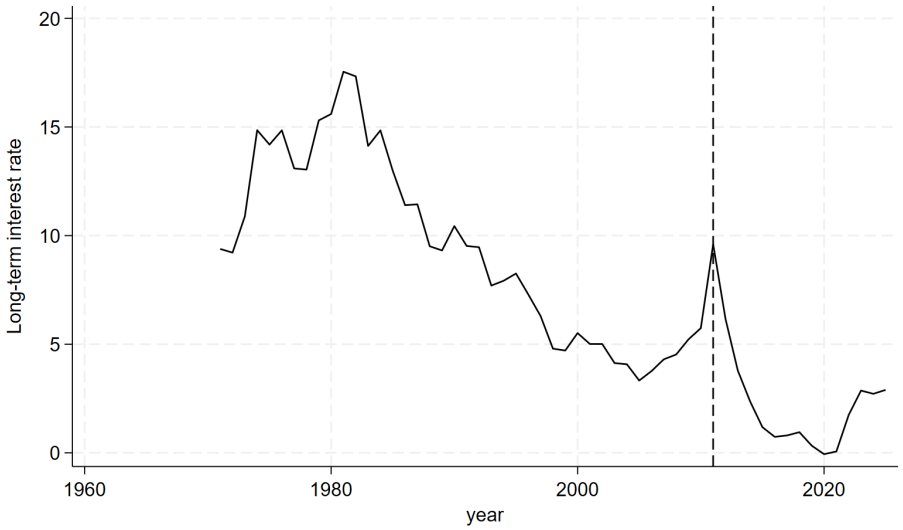


Figure 7: Ireland: long-term interest rate around IFAC establishment (2011). Annual long-term (10-year) government bond yield, per cent. The dashed vertical line marks the establishment year.

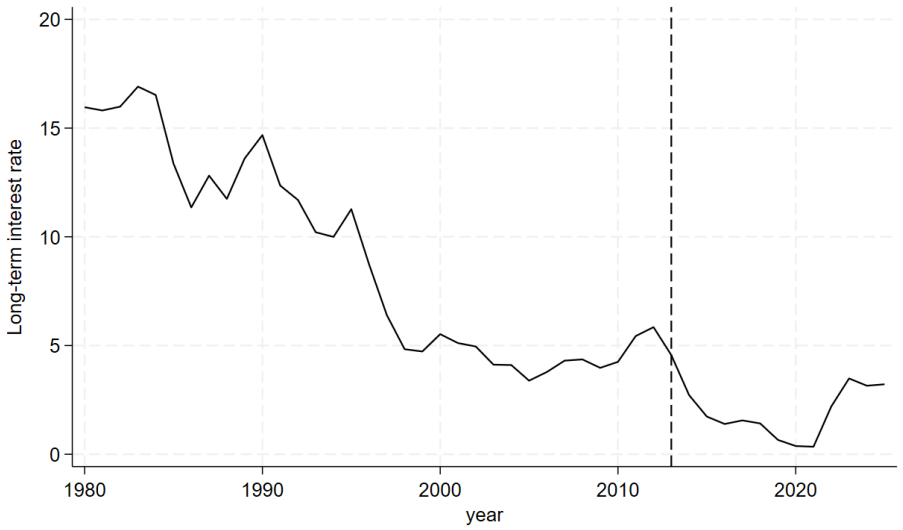


Figure 8: Spain: long-term interest rate around AIReF establishment (2013). Annual long-term (10-year) government bond yield, per cent. The dashed vertical line marks the establishment year.

is the most dramatic of the five, as the establishment year itself sits almost precisely at the peak of the Irish sovereign bond crisis, with rates falling sharply thereafter. This is a pattern that lines up as much with the EU-IMF programme, the European Central Bank's 2012 Outright Monetary Transactions announcement, and the general compression of EA periphery spreads as with IFAC specifically. Spain's pattern (Figure 8) is milder but similar in kind, with rates already declining before AIReF's creation and continuing to decline afterward, again over a window dominated by the same EA-wide resolution of acute crisis-era stress that affected other countries simultaneously, irrespective of their own specific IFI arrangements. None of the five cases offers clean, institution-specific visual evidence of a rate effect. The recurring pattern, i.e. a common macro-financial shock (global disinflation, a pandemic, or crisis-resolution monetary policy) dominates the window around almost any given institution's founding.

The founding year is not necessarily the most informative point in an institution's history. The UK series contains the episode in the sample that comes closest to a direct test of the informational role of an IFI. In September 2022 the government announced a package of large unfunded tax cuts without an accompanying OBR forecast. Gilt yields rose sharply in the following days, the Bank of England intervened in the long-dated gilt market to contain the effects on pension funds' liability-driven investment strategies, and both the Chancellor and the Prime Minister left office within weeks. Contemporary commentary attributed part of the market reaction to the absence of an independent assessment of the package, and the Budget Responsibility Act 2024 subsequently made an OBR assessment mandatory for fiscal events containing permanent measures above a size threshold. The episode shows that the value markets attach to an IFI may become most visible when a government decides not to consult it prior to policy action.

6 What Is a Broader Mandate Associated With?

Section 4 suggests that IFI adoption responds to EMU membership and peer diffusion, which means IFI presence, monitoring status, and mandate breadth are all plausibly endogenous to the very outcomes examined in this Section. Based on this as well as the country-specific developments presented in Section 5.3, all results should be treated as correlational rather than as demonstrations of a strong causal mechanism operating at the individual-country level, despite including country

and year fixed effects and a range of controls. Unless stated otherwise, the regressions in this section are estimated on OECD country-years from 1970 to 2024 with non-missing outcome and control variables. The IFI indicators are set as 1 beginning from the year of establishment.

6.1 Borrowing costs: a level effect, not a slope effect

The first question is whether IFI presence is associated with the level of long-term sovereign borrowing costs, with their sensitivity to government debt, or with both. The two functions distinguished in Section 2.3 have different implications. If IFIs work mainly through enforcement, i.e. by making it more likely that rising debt is followed by corrective action, markets should require less compensation for each additional unit of debt, and the relationship between debt and yields should become flatter. If IFIs work mainly through information provision, they should reduce the premium that markets charge for uncertainty about the true fiscal position, for example uncertainty arising from optimistic official forecasts or poorly documented fiscal risks. Such a premium is not specific to high-debt countries, so the informational channel predicts a lower level of borrowing costs. Its prediction for the slope is ambiguous, since more reliable figures could make markets respond either more or less strongly to reported debt.

Table 3: Government Debt, IFI Presence, and Long-Term Interest Rates

	(1)	(2)
	Long-term interest rate	
Government debt (% GDP)	0.019*	0.017*
	(0.011)	(0.009)
IFI exists	–0.928**	
	(0.392)	
Debt × IFI exists	–0.0006	
	(0.0089)	
Years since IFI adoption		0.062
		(0.043)
Debt × years since adoption		–0.0003
		(0.0004)
Observations	1115	1115

Notes: Linear regressions with country and year fixed effects. Dependent variable: long-term (10-year) government bond yield. IFI exists equals one from the year in which the country's first IFI was established; years since IFI adoption is zero before adoption. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Table 3 implies a level effect with no accompanying slope effect. IFI presence is associated

with roughly a 0.93 percentage point lower long-term interest rate on average (column 1), while the interaction with the level of government debt is statistically insignificant. The insignificance remains when IFI presence is replaced with years since adoption (column 2).

A level effect without a slope effect is more consistent with the informational channel than with the enforcement channel. Markets appear to attach a lower premium to countries with an IFI, but they do not price additional debt differently once an IFI is in place, which is what the enforcement channel would lead one to expect. In the terminology of Section 2.3, the result is a credibility effect that operates through reduced uncertainty about the fiscal position rather than through a stronger commitment to correct deviations. The analysis cannot identify this mechanism directly, and the interpretation is offered as the one most consistent with the pattern of coefficients. Section 6.5 returns to the same distinction in the context of fiscal rules.

Column 2 replaces IFI presence with the number of years since adoption. The association with borrowing costs should strengthen with institutional age if IFIs build reputation gradually (as Calmfors and Wren-Lewis (2011) suggest), or if their informational role grows over time. The results show that is does not and the coefficient is small and statistically insignificant. Age seems to be a poor proxy for the content of a mandate. Much of the broadening documented in Section 5 took place in the years around the GFC and the EU reforms of 2011–2013, and these reforms applied to old and new institutions alike, so that what an IFI does depends more on calendar time and EU membership than on how long it has existed. With year fixed effects absorbing calendar time, years since adoption is identified only from differences in adoption dates across countries.

A related question is whether IFI presence reduces the volatility of fiscal outcomes rather than shifting their average level. Appendix Table A.4 uses the five-year rolling standard deviation of the headline balance and of the structural primary balance, and IFI presence is not a significant predictor of either. IFIs thus appear to shift the average level around which borrowing costs are anchored without making fiscal outcomes noticeably more stable from year to year.

6.2 Watchdog versus informational functions

The next question is whether this level effect is concentrated in institutions with an explicit rule-monitoring, or "watchdog," mandate, using the actual monitoring flag from the IMF dataset.

Table 4 presents a counterintuitive result, and one that replicates across two independent oper-

Table 4: Watchdog vs. Informational IFIs: Real Monitoring-Mandate Data

	Primary balance (monitor only)	Primary balance (information only)	Long-term rate (joint model)
Government debt	–0.023**	–0.023***	0.019*
	(0.009)	(0.008)	(0.010)
Real monitoring-mandate IFI	–0.584		–0.998***
	(1.129)		(0.343)
× government debt	0.005		–0.003
	(0.012)		(0.007)
IFI, no documented monitoring mandate		–0.079	–1.525**
		(0.670)	(0.694)
× government debt		0.005	0.013
		(0.011)	(0.014)
Observations	1096	1096	1115

Notes: Linear regressions with country and year fixed effects. Dependent variables: primary balance, per cent of GDP (IMF) and long-term (10-year) government bond yield, per cent (OECD). Real monitoring-mandate IFI equals one if an IFI is in operation and the IMF Fiscal Rules dataset records an independent body monitoring implementation of and compliance with numerical rules. IFI, no documented monitoring mandate equals one if an IFI is in operation without such a record. Reference category throughout is no IFI. Columns 1 and 2 include one IFI type at a time; column 3 includes both. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

ationalisations of monitoring status: the real IMF monitoring flag reported here as well as the EU Two-Pack proxy in Appendix Table A.6. Neither IFI type shows any significant association with the primary balance response to rising debt. This means that the classic "fiscal effort" channel through which a watchdog institution might be expected to operate appears to be absent in both groups. On borrowing costs, both types are associated with significantly lower long-term rates in the joint model, but institutions without a documented monitoring mandate show the numerically larger effect compared to those with one.

This result should be interpreted together with the definitional discussion in Section 2.3 and the delegation logics distinguished in Section 2.4. If the value of an IFI runs primarily through reducing information asymmetries there is no particular reason to expect the monitoring function to dominate a broader informational one, and the evidence here is more consistent with the informational channel carrying at least as much weight. In delegation terms, the result is more consistent with Majone (2001)'s efficiency logic, i.e. delegating a technical task whose credible performance has value independent of enforcement, than with the fiduciary logic that motivated the original watchdog

framing. This is because the fiduciary logic gives no particular reason for the non-monitoring functions to carry the borrowing cost association at all. For policymakers designing or reforming an IFI, this suggests that investment in forecasting capacity, transparency, and public communication may be at least as consequential for market perceptions as investment in formal rule-monitoring powers. This is a result that seems to go against the aims of institutional design (including much of the EU's post-2013 architecture per Section 2.5), which have historically emphasised the monitoring function.

A cross-check is done with the EU Two-Pack proxy version of the joint model (Appendix Table A.7), combining both proxy categories in a single specification analogous to the real-monitoring joint model. With the Two-Pack proxy the monitoring-mandate category that is significantly associated with lower long-term rates, while the no-documented-monitoring category is not statistically significant. This is a reversal of the ranking obtained with the real IMF monitoring data, where the no-documented-monitoring category showed the numerically larger effect. On the primary balance outcome, neither proxy category is significant in the joint specification. The more general and more robust finding of overall IFI presence being associated with materially lower long-term rates regardless of which specific monitoring definition is used replicates cleanly across every specification and proxy used in this paper.

6.3 Compliance: the channel where monitoring should matter

A direct test of actual rule compliance, rather than an inferred fiscal effort proxy, provides some additional information about the effects of different IFI functions.

Table 5: Predicting Actual Documented Rule Compliance

	Complies with all active rules
Real monitoring-mandate IFI	0.184^{*}
	(0.104)
IFI, no documented monitoring mandate	0.202
	(0.136)
Observations	218

Notes: Dependent variable equals one if the country complies with all national numerical fiscal rules in force in that year. Sample restricted to country-years with at least one rule in force. IFI types defined as in Table 4, reference category is no IFI. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Table 5 shows that both types of IFI are positively associated with the probability of complying with all active rules. Only the coefficient for monitoring-mandate IFIs is significant, and only at the 10 percent level. The binary split does not distinguish the compliance association of a monitoring mandate from that of an IFI without one, and the table should not be read as evidence that the watchdog function has a specific effect on compliance. The sample is also small, since compliance is only observed in country-years where a rule is already in force, which restricts the estimation sample to about a fifth of the full panel.

6.4 Analytical versus watchdog capacity: a continuous test

The binary monitoring-mandate split in Section 6.2 treats the institutional strength of an IFI as a single yes/no distinction. This section replaces that binary with two separate [0–4] continuous capacity indices, built from additional IMF Fiscal Rules Dataset. Analytical capacity sums whether an IFI sets or assesses official budget forecast assumptions, publishes a medium-term fiscal framework, targets a cyclically-adjusted or structural budget balance, and is subject to formal publication requirements. Two of these components, the structural balance target and publication requirements, are features of the fiscal framework rather than tasks of the IFI itself. They are included because such targets and requirements are what make independent estimation and reporting of the fiscal position necessary, but the index should be read as measuring the analytical demands that the framework places on the IFI rather than the IFI's own resources. Watchdog/enforcement capacity sums whether compliance is monitored by a body outside government, whether a formal enforcement procedure exists, and whether a correction mechanism (with or without pre-specified triggers) applies when a rule is breached. The two indices are only weakly correlated with one another among IFI-holding countries, indicating that they capture actually separate dimensions of institutional strength rather than a single underlying factor.

The results in Table 6 generally support the conclusions from Section 6.2 and Section 6.3. Analytical capacity is significantly associated with both lower long-term borrowing costs and higher documented compliance, while watchdog/enforcement capacity is insignificant in all studied cases. This is a stronger results than the one from the binary division. Informational functions matter as much as monitoring on the borrowing cost margin, but the analytical dimension of capacity appears to be more effective than the enforcement dimension within the population of IFI-holding

Table 6: Analytical vs. Watchdog Capacity: Joint Model Across Outcomes

	Long-term rate	Compliance	Primary balance
Analytical capacity (0–4)	–0.427***	0.353***	1.056
	(0.127)	(0.089)	(1.121)
Watchdog/enforcement capacity (0–4)	–0.070	–0.411	–0.651
	(0.183)	(0.281)	(0.802)
Observations	549	145	512

Notes: Sample restricted to IFI-holding country-years. Joint model includes both capacity dimensions simultaneously. Capacity indices constructed from the IMF Fiscal Rules dataset. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

countries. This also applies to compliance, the outcome for which a monitoring function would be expected to matter most.

It is worth noting that Table 4 uses the full panel and compares country-years with each type of IFI to country-years without any IFI, whereas Table 6 is restricted to IFI-holding country-years and asks which dimension of capacity accounts for differences among institutions. In the EU, IFIs with a monitoring mandate were generally also required to produce or endorse the macroeconomic forecasts underlying the budget (Section 2.1). The lower rates associated with monitoring-mandate IFIs in Table 4 are therefore consistent with Table 6 if they reflect the analytical capacity that these institutions also have. The binary monitoring flag and the continuous enforcement index also measure different things, as a country can have a documented monitoring mandate without the outside-monitoring, formal-enforcement and correction-mechanism features that make up the index, or vice versa. These aspects may suggest that among IFIs it is analytical capacity that is associated with lower borrowing costs and better compliance, and that the comparison with countries without an IFI in Table 4 might be due to this capacity in both IFI types.

The result can be interpreted from the point of view of the two delegation logics distinguished in Section 2.4. Majone (2001)'s fiduciary logic predicts that enforcement machinery (outside monitoring, formal sanctions, pre-specified correction triggers) should be the dimension tied to outcomes, since its entire purpose is to remove a government's temptation to misreport. The results of Table 6 imply that it is analytical capacity, not enforcement capacity, that is systematically associated with both outcomes. This is a pattern the efficiency logic of Alesina and Tabellini (2007) would predict for a technical task whose credible performance has value independent of any enforcement role. This implies that IFIs are not simply watchdogs whose bite matters less than advertised, but institutions

whose analytical competence (rather than their formal enforcement powers) appears most closely tied to the outcomes examined in this paper. This is consistent with delegation for competence being the more empirically relevant logic at this stage of these institutions' development.

A simpler version of this same question, does mandate breadth predict outcomes independent of the analytical/watchdog split, is tested in Appendix Table A.5 using the continuous 0–4 breadth score from Section 5.1. The long-term-rate and compliance results are not significant on their own, consistent with the capacity split. This implies that it is specifically the analytical component of breadth that is behind the borrowing cost and compliance associations. The primary balance result is an exception where mandate breadth is significantly associated with a stronger primary balance, and this is the only occasion where a relationship with primary balance is observed. It is also worth noting that the results in Table 6 do not support the same result for either capacity dimension individually.

6.5 Do institutions and fiscal rules work better together?

Nerlich and Reuter (2013) used EU data over 1990–2012 and found that national fiscal councils strengthen the positive effect of numerical fiscal rules on the budget balance, i.e. that rules and IFIs behave as complements rather than substitutes. The OECD-wide panel used in this paper cannot formally identify a rule-monitoring interaction, but the descriptive pattern that follows is consistent with the conclusions in prior literature.

Cross-tabulating IFI presence against the presence of a binding national rule in this OECD panel is not straightforward as a country-year with a documented rule-monitoring mandate but no underlying rule to monitor essentially never occurs, since monitoring mandates and formal rules are almost always bundled, particularly in the EU context. Table 7 reports a categorical comparison of any-IFI status against any binding rule, which has a populated "IFI-only" cell of largely non-EU institutions.

Of the three categorical groups, only "IFI only" and "rule only" are statistically significant in their expected outcome columns. "Both" is not on this level-effect margin. A direct interaction between a binding-rule indicator and the real monitoring-mandate was also tested, but cannot be separately identified from the two main effects, because a country-year with a real monitoring-mandate IFI but no binding rule is essentially non-existent in the panel. This is a structural feature

Table 7: Binding Fiscal Rules and IFIs: Categorical Comparison

	Any IFI × Any Rule (categorical)		
	Long-term rate	Primary balance	Volatility
IFI only	–1.112* (0.582)	3.346 (4.192)	–0.449 (0.338)
Rule only	–0.431 (0.450)	2.567* (1.332)	–0.370 (0.332)
Both	–0.917 (0.572)	1.798 (1.564)	–0.343 (0.434)
Observations	1011	1049	1047

Notes: Linear regressions with country and year fixed effects. The reference category is country-years with neither an IFI or a binding national numerical rule. Any rule equals one if at least one national numerical fiscal rule is in force. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

of how monitoring mandates and rules co-occur in the OECD, but it is also partly a consequence of measurement. The monitoring flag comes from a dataset organised around numerical rules, so an IFI can only be recorded as monitoring a rule once a rule exists. Institutions that predate national rules appear in the "IFI only" cell under the any-IFI coding, but cannot appear as monitoring-mandate IFIs without a rule.

A slope-augmented version of the categorical comparison (Appendix Table A.8) lets the discount vary with debt rather than averaging over the whole sample. In that case "Both" has the largest and most significant main-effect discount of the three categories, which then shrinks as debt rises. The two versions are not strictly comparable, but together they suggest that the discount of the "Both" category is concentrated at low-to-moderate debt levels rather than actually absent, as the flat categorical comparison here might suggest on its own.

Figure 9 presents a pattern where long-term rates decrease monotonically. They are highest with no institution at all, lower with a rule alone, and lowest where a rule is paired with a real monitoring-mandate IFI. The gap between "rule alone" and "rule plus monitoring" is economically meaningful. A narrower comparison restricted to rule-holding countries is presented in Appendix Table A.9), where a rule paired with real monitoring is associated with lower rates, statistically significant at the 10% level. Together with the roughly one-point spread visible in Figure 9, this is consistent with markets pricing a rule-plus-monitoring regime as more credible than a rule on its own. This is the kind of complementarity a market-discipline account of IFIs would predict, even though the panel's near-total bundling of monitoring mandates with binding rules means this should not be considered a clean causal interaction effect independent of each institution's own

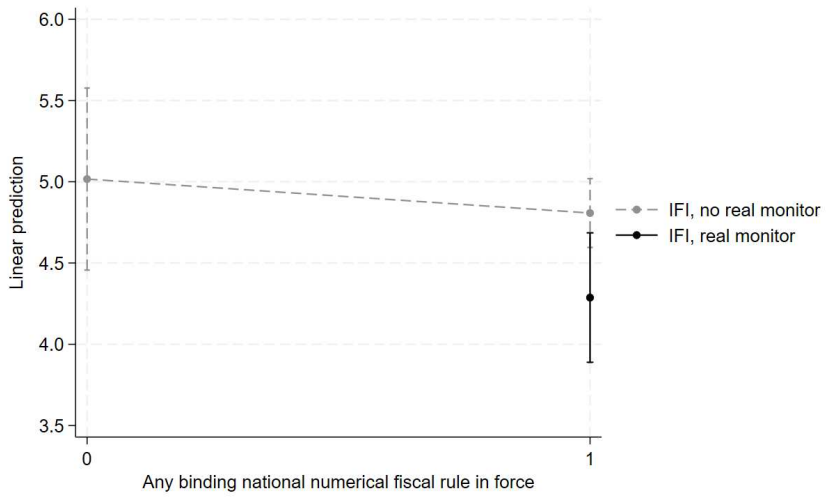


Figure 9: Adjusted predictions of the long-term interest rate by binding-rule status and real monitoring-mandate status. 95% confidence intervals.

effect.

6.6 Mandate expansion: EMU membership and the limits of demographic pressure

Section 4 shows that EMU membership is the most robust predictor of whether a country adopts an IFI at all. This section studies whether the same institutional force also predicts mandate expansion conditional on already having one, and, separately, tests a competing hypothesis: that population ageing predicts mandate growth indirectly through its effect on public finances.

Table 8: Predictors of Mandate Expansion: EMU Membership versus Demographic Pressure

	Debt	Balance	Mandate exp. (ageing only)	Mandate exp. (full controls)
Old-age dependency ratio	3.586***	0.182	–0.0018	–0.0014
	(0.836)	(0.180)	(0.0043)	(0.0052)
EMU member	9.107	–0.403	0.0341**	0.0161
	(5.638)	(0.619)	(0.0160)	(0.0181)
Observations	1500	1155	391	391

Notes: Columns 1 and 2 are the full panel, columns 3 and 4 are linear probability models restricted to IFI-holding country-years with a non-missing lag of mandate breadth. Columns 1 and 2 also control for tax revenue (% GDP). Column 4 adds debt deterioration, balance deterioration, spread spikes, growth slowdowns, unemployment rises, inflation shocks, and trade openness as controls. Standard errors clustered by country in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

The first link in the demographic hypothesis holds as ageing pressure predicts significantly higher government debt (column 1), though not a significantly weaker headline balance in any given year (column 2), consistent with a slow-building stock effect on debt rather than a sharp annual flow effect on the balance. A persistently ageing population raises age-related spending commitments gradually and cumulatively (Kotamäki and Lehtimäki, 2025), while the annual balance also reflects substantial transitory cyclical noise that can mask a slow-moving structural trend in any single year. The second link, from public finances to mandate expansion, does not hold. The old-age dependency ratio is not a significant predictor of mandate expansion, either on its own (column 3) or alongside a wider set of fiscal and macroeconomic controls (column 4). Of the additional controls added in column 4, only a deteriorating headline balance reaches statistical significance (only at 10% level), and demographic pressure does not appear to be a driver of IFI mandate growth.

EMU membership's relationship with mandate expansion is less clear than the demographic-pressure result. It is a significant predictor in the narrower ageing-only specification (column 3), but that significance does not survive once the wider set of fiscal and macroeconomic controls is added (column 4). This stands in contrast to EMU membership's role in Section 4, where it is the single most robust predictor of adoption timing across every attempted specification, and to Table 2, where EMU membership is not a significant predictor of mandate breadth conditional on already having an IFI either. Taken together, the pattern that emerges across Sections 5.2 and 6.6 is that EMU membership's institutional effect operates most robustly at the extensive margin, i.e. the decision to adopt an IFI in the first place, and its role at the intensive margin (how far an existing mandate subsequently grows) is more specification-dependent.

7 Conclusion

Many of the IFIs created after the GFC were set up to monitor compliance with fiscal rules, although older institutions and parliamentary budget offices had quite different origins. This paper has shown that even for the former group the job description has changed, and has explained that change based on two public choice mechanisms rather than treated it as a purely descriptive trend. Adoption timing is explained overwhelmingly by EMU membership and diffusion among peer countries rather than by domestic fiscal distress, a pattern consistent with a yardstick-competition

logic, where incumbents facing voters who benchmark fiscal governance against comparable countries have an electoral incentive to adopt an IFI once enough peers have one, independent of any private assessment of domestic fiscal risk. The same EMU-membership effect is associated with mandate expansion conditional on adoption in a narrower specification, though that association is not robust to a wider set of fiscal and macroeconomic controls, and it is not a significant predictor of mandate breadth at all once a country already has an IFI.

These results imply that the institutional effect of EMU membership is strongest at the extensive margin of whether a country adopts an IFI, weaker and specification-dependent at predicting how far an existing mandate subsequently grows, and undetectable in the level of breadth an IFI has reached at any point in time. This suggests adoption is substantially a political and legislative decision, while the subsequent build-out of an institution's functions looks more like an idiosyncratic, technocratic process not well explained by the same external pressures that got the institution created. Deteriorating public finances, a natural competing hypothesis for mandate growth, finds no support at either stage of that hypothesised channel, regardless of specification.

Conditional on adoption, the mandate of a typical IFI has broadened substantially since the mid-2000s, and a delegation-theoretic distinction helps explain why. Monitoring compliance is closest to a fiduciary logic of delegation, addressing a government's inability to credibly self-report its own conduct, while the broader analytical functions documented in this paper are closer to an efficiency logic of delegation, assigning a technical task whose credible performance has value independent of any enforcement role. With the IMF monitoring flag, borrowing costs are at least as strongly associated with institutions without a documented monitoring mandate as with those that have one, which suggests the efficiency logic now is at least as important in practice as the fiduciary logic that motivated the original watchdog framing. A continuous decomposition of institutional strength sharpens this same conclusion further, and analytical capacity appears to be the dimension significantly associated with both lower borrowing costs and higher documented compliance, when it is tested tested together with the watchdog/enforcement capacity.

The paper has attempted to be explicit about which parts of the results and interpretations are strong and which remain exploratory. The adoption result held up consistently across every specification tried, whereas the broad direction of the mandate-breadth trend is a descriptive fact visible directly in the data, though its precise shape before the GFC is measured over a thin

and non-representative sample of countries. The EMU-membership link to mandate expansion holds in a narrower specification but not once wider controls are added, a specification-dependence reported explicitly in Section 6.6. The overall borrowing cost association of IFI presence replicates across independent formulations of monitoring status, and the analytical-capacity result replicates it again in continuous form. The claim that institutions without a documented monitoring mandate carry the numerically larger borrowing cost effect is less robust as it holds with the real IMF monitoring data, but reverses when the same joint test is run with the EU Two-Pack-era proxy. This distinction between a robust headline effect and a proxy-sensitive subtype ranking is reported explicitly, and should be interpreted with proper caution. Documented rule compliance under the binary monitoring-mandate definition is based on a smaller sample, and a direct test of whether a strong IFI and a binding fiscal rule are more effective together than either alone cannot be formally identified in this panel, because monitoring mandates and binding rules co-occur too completely to separate their combined effect from their individual effects. This identification limit is an actual constraint on what this data can establish, but the descriptive pattern visible where the combination does occur is promising. Adjusted long-term rates are lowered monotonically from no institution, to a rule alone, to a rule paired with real monitoring, and the narrower rule-holding comparison has a significant association with the second step.

If the division between effects from analytical and enforcement capacity hold up in future work, it would suggest that IFIs are best evaluated against different audiences and different success criteria depending on which function is being studied, rather than by "effectiveness". The suggestive complementarity observed in this paper between strong institutions and binding rules deserves a dedicated empirical strategy of its own to confirm.

For policy, this paper's results imply beneficial adjustments to institutional designs that treat rule-monitoring, or the layering of an IFI onto an existing rule, as the primary lever for improving fiscal outcomes. If market-facing credibility tracks analytical capacity more closely than it tracks formal monitoring or enforcement powers, then countries reforming or newly establishing an IFI may have as much to gain from investing in forecasting capacity, transparency, and public communication as from investing in compliance-monitoring authority narrowly defined. Supranational arrangements, such as EMU accession or OECD membership, appear to be as relevant to how far that mandate subsequently grows as it is to the initial decision to establish an IFI at all. The

EFB's analysis of formal IFI involvement in the EU's newly reformed framework remaining limited in practice, even as its legal architecture was substantially rewritten in 2024, attaches a caution to this same point. Broadening a mandate on paper is evidently not sufficient for broadening an institution's practical influence, and closing that gap seems to be a more pressing institutional challenge facing European fiscal governance now that the mandate-broadening trend documented in this paper is already well underway for most of OECD countries.

Beyond the aspects noted earlier in the paper, future work should treat IFI strength as a multidimensional and plausibly endogenous object rather than a single dummy indicator. This could be done by combining the analytical/enforcement decomposition used here with an explicit identification strategy, such as EU-accession timing as an instrument or matched comparisons around specific adoption episodes. It would also require mandate measures that cover costing, legislative support and sustainability analysis, and that distinguish PBO-type institutions from fiscal councils, since the measures available annually in the IMF data are built around the fiscal council model. Additionally, future work should extend the testing of drivers of compliance, and the complementarity between IFIs and fiscal rules, to samples and settings where the two are not as completely bundled together as they are in the OECD panel.

References

Alesina, A. and Tabellini, G. (2007). Bureaucrats or politicians? Part I: a single policy task. *American Economic Review*, 97(1):169–179.

Alonso-Albarran, V., Arroyo, C., Aydin, O., Balasundharam, V., Davoodi, H. R., Hegab, G., Lam, R., Nguyen, A. M., Salazar, N., Sher, G., Solovyeva, A., and Tchelishvili, N. (2025). Fiscal Rules and Fiscal Councils: Recent Trends and Revisions since the Pandemic. *IMF Working Paper series*, 198.

Beck, N., Katz, J. N., and Tucker, R. (1998). Taking time seriously: Time-series-cross-section analysis with a binary dependent variable. *American Journal of Political Science*, 42(4):1260–1288.

Beetsma, R., Debrun, X., Fang, X., Kim, Y., Lledó, V., Mbaye, S., and Zhang, X. (2019). Independent fiscal councils: Recent trends and performance. *European Journal of Political Economy*, 57:53–69.

Besley, T. J. and Case, A. (1995). Incumbent behavior: Vote seeking, tax setting and yardstick competition. *American Economic Review*, 85(1):25–45.

Calmfors, L. and Wren-Lewis, S. (2011). What should fiscal councils do? *Economic Policy*, 26(68):649–695.

Craig, J. and Kopits, G. (1998). Transparency in government operations. *IMF Occasional Paper*, 158.

Debrun, X., Hauner, D., and Kumar, M. S. (2009). Independent fiscal agencies. *Journal of Economic Surveys*, 23(1):44–81.

Debrun, X. and Kinda, T. (2017). Strengthening post-crisis fiscal credibility: fiscal councils on the rise–a new dataset. *Fiscal Studies*, 38(4):667–700.

Debrun, X., Kinda, T., Curristine, T., Eyraud, L., Harris, J., and Seiwald, J. (2013). The functions and impact of fiscal councils. *IMF Policy Paper*, 16.

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

European Fiscal Board (2025). *2025 Annual Report*. European Fiscal Board, Brussels.

Frankel, J. and Schreger, J. (2013). Over-optimistic official forecasts and fiscal rules in the eurozone. *Review of world economics*, 149(2):247–272.

Hallerberg, M., Strauch, R. R., and Von Hagen, J. (2009). *Fiscal governance in Europe*. Cambridge University Press.

Jonung, L. and Larch, M. (2006). Improving fiscal policy in the EU: the case for independent forecasts. *Economic Policy*, 21(47):492–534.

Joyce, P. G. (2011). *The Congressional Budget Office: Honest Numbers, Power, and Policymaking*. Georgetown University Press, Washington, DC.

Kotamäki, M. and Lehtimäki, J. (2025). Getting too old for this: Population ageing and its economic consequences in Finland. *Economic Analysis and Policy*, 88:1720–1750.

Larch, M. and Braendle, T. (2018). Independent fiscal councils: Neglected siblings of independent central banks? An EU perspective. *JCMS: Journal of Common Market Studies*, 56(2):267–283.

Majone, G. (2001). Two logics of delegation: agency and fiduciary relations in EU governance. *European Union Politics*, 2(1):103–122.

Nerlich, C. and Reuter, W. H. (2013). The design of national fiscal frameworks and their budgetary impact. *ECB Working Paper series*, No. 1588.

Schjøtt-Pedersen, K. E. (2026). Can independent fiscal councils promote increased fiscal sustainability by enhancing fiscal literacy among the general public? *Journal of Public Budgeting, Accounting & Financial Management*, pages 1–20.

Von Hagen, J. and Harden, I. J. (1995). Budget processes and commitment to fiscal discipline. *European Economic Review*, 39(3-4):771–779.

Von Trapp, L., Lienert, I., and Wehner, J. (2016). Principles for independent fiscal institutions and case studies. *OECD Journal on Budgeting*, 15(2):9–24.

Wehner, J. (2006). Assessing the power of the purse: an index of legislative budget institutions. *Political Studies*, 54(4):767–785.

A Data and sources

The panel covers all 38 OECD member countries. Macro-fiscal and control variables are compiled from the public databases of international organisations (IMF, World Bank, OECD). Summary statistics are presented in Table A.1, and the sources as well as transformations in Table A.2. IFI establishment dates and all fiscal rule and IFI-mandate variables are drawn from IMF Fiscal Council and Fiscal Rules datasets (Alonso-Albarran et al., 2025).

Table A.1: Macro-Fiscal and Control Variables: Summary Statistics, 1970–2024

Variable	N	Mean	SD	Min	Max
Government debt (% of GDP)	1687	56.88	37.79	3.90	269.77
Headline balance (% of GDP)	1245	–2.30	4.09	–32.14	25.45
Primary balance (% of GDP)	1235	–0.30	3.58	–29.95	24.19
Structural primary balance (% of pot. GDP)	1098	–0.68	3.09	–16.11	14.91
Long-term interest rate (%)	1306	5.40	3.67	–0.52	22.50
Trade openness (% of GDP)	1911	78.26	50.17	9.10	412.18
Old-age dependency ratio (%)	2090	20.20	7.11	5.46	50.66
Tax revenue (% of GDP)	1690	19.53	6.15	0.00	37.09
Inflation, GDP deflator (%)	1909	11.54	46.15	–11.08	942.31
Unemployment rate (%)	1747	7.25	4.13	0.20	27.69
Real GDP per capita (2015 US$)	1950	28,706	19,928	2,001	112,418
Population (mn)	2090	30.803	49.922	0.204	340.110
EU member (0/1)	2090	0.30	0.46	0	1
EMU member (0/1)	2090	0.18	0.39	0	1
Any IFI in operation (0/1)	2090	0.32	0.47	0	1

Notes: Sample consists of 38 countries × 55 years = 2090 potential country-years. N varies by data availability. "Any IFI in operation" is the extensive-margin dummy constructed from the establishment years and equals the country-level average share reported in the main text.

Table A.2: Macro-Fiscal and Control Variables: Definitions and Sources

Variable	Description	Source
Government debt	General government gross debt (% of GDP)	IMF
Headline balance	General government net lending/borrowing, overall fiscal balance (% of GDP)	IMF
Primary balance	General government primary net lending/borrowing (% of GDP)	IMF
Structural primary balance	Cyclically adjusted primary balance (% of potential GDP)	IMF
Long-term interest rate	Long-term (10-year) government bond yield (%)	OECD
Trade openness	Exports plus imports of goods and services (% of GDP)	World Bank
Old-age dependency ratio	Population aged 65+ relative to population aged 15–64 (%)	World Bank
Tax revenue	General government tax revenue (% of GDP)	World Bank
Inflation	GDP deflator, annual % change	World Bank
Unemployment rate	Total unemployment (% of total labour force, modelled ILO estimate)	World Bank
Real GDP per capita	GDP per capita, constant 2015 US$	World Bank
Population	Total population	World Bank
EU/EMU member	1 if EU/EMU member in that year, 0 otherwise	Author's coding

B Supplementary Result Tables

Table A.3: Circumstances Surrounding Documented Major IFI Reforms (Descriptive)

	1 = documented reform year
Debt rose sharply	–0.795 (1.110)
Headline balance worsened y/y	0.832 (0.713)
Share of OECD peers with an IFI	–2.283 (2.076)
EMU member	1.008 (1.110)
Observations	584

Table A.4: IFI Presence and Fiscal-Outcome Volatility

	Headline balance SD (5yr)	Structural primary balance SD (5yr)
IFI exists	–0.042 (0.284)	–0.194 (0.223)
Observations	1093	972

Table A.5: Does Mandate Breadth Predict Outcomes?

	Long-term rate	Compliance	Primary balance
Mandate breadth (0–4)	–0.234 (0.148)	–0.194 (0.377)	2.451^{***} (0.670)
Observations	386	103	376

Notes: Sample restricted to IFI-holding country-years; identification here comes from within-IFI variation in breadth over time.

Table A.6: Watchdog vs. Informational IFIs, EU Two-Pack-Era Proxy

	Primary balance	Long-term rate
EU IFI, post-2013 monitoring proxy	0.116 (0.936)	–0.771* (0.385)
IFI, no documented monitoring proxy	–0.668 (0.934)	–1.240* (0.655)
Observations	1096	1115

Notes: Separate models per column/type; see Table 4 for the preferred joint specification.

Table A.7: Joint Model with the EU Two-Pack Proxy

	Long-term rate	Primary balance
Government debt	0.017 (0.010)	–0.026*** (0.008)
EU Two-Pack monitoring proxy	–1.335*** (0.350)	0.119 (0.986)
IFI, no documented monitoring proxy	–1.199 (0.723)	–0.707 (0.978)
Observations	1115	1096

Notes: Both Two-Pack-era proxy categories included jointly in a single specification, directly analogous to the real-monitoring joint model in Table 4 rather than the separate-model specifications in Table A.6. Country and year fixed effects included throughout.

Table A.8: Any IFI × Any Rule, Slope-Augmented Specification (Long-Term Rate)

	Long-term rate
IFI only	–3.510* (1.844)
Rule only	–1.902** (0.880)
Both	–2.398*** (0.629)
Debt × IFI only	0.033 (0.020)
Debt × Rule only	0.030** (0.014)
Debt × Both	0.022*** (0.008)
Observations	1007

Table A.9: Rule Alone versus Rule Plus a Real Monitoring-Mandate IFI

	Long-term rate	Primary balance
Rule only	–0.209 (0.363)	2.179* (1.265)
Rule + monitoring IFI	–0.729* (0.382)	1.253 (1.897)
Observations	1011	1049

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