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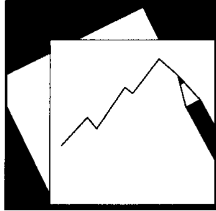

IMF Working Paper

Fiscal Rules in Response to the Crisis—Toward the "Next-Generation" Rules. A New Dataset

Andrea Schaechter, Tidiane Kinda, Nina Budina, and Anke Weber

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Prepared by Andrea Schaechter, Tidiane Kinda, Nina Budina, and Anke Weber

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Abstract

Strengthening fiscal frameworks, in particular fiscal rules, has emerged as a key response to the fiscal legacy of the crisis. This paper takes stock of fiscal rules in use around the world, compiles a dataset—covering national and supranational fiscal rules, in 81 countries from 1985 to end-March 2012—and presents details about the rules' key design elements, particularly in support of enforcement. This information is summarized in a set of fiscal rules indices. Three key findings emerge: (i) many new fiscal rules have been adopted and existing ones strengthened in response to the crisis; (ii) the number of fiscal rules and the comprehensiveness of the design features in emerging economies has caught up to those in advanced economies; and (iii) the "next-generation" fiscal rules are increasingly complex as they combine the objectives of sustainability and with the need for flexibility in response to shocks, thereby creating new challenges for implementation, communication, and monitoring.

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I. INTRODUCTION[1]

Strengthening fiscal frameworks, in particular numerical fiscal rules, has emerged as a key response to the fiscal legacy of the crisis. In the euro area and in most other European Union (EU) member states this applies to institutional reforms at the national and supranational level, as agreed in the "Fiscal Compact" and the "six pack."[2] Also outside the EU many countries have started or are considering reforms to the existing fiscal rules and introduction of new ones with a view to provide a medium-term anchor, support credible long-term adjustment efforts, and ensure fiscal sustainability.

This paper takes stock of the use of numerical fiscal rules around the world. It focuses on the systematic compilation and comparison of fiscal rules and their design elements, including the most recent developments during the crisis. In particular, it reviews trends—since the mid-1980 until early 2012—on the types and number of rules as well as their combinations, and their main characteristics, such as the legal basis, enforcement, coverage, escape clauses, and provisions for cyclical adjustments. The paper also takes stock of key supporting features that have been in place, including independent monitoring bodies and fiscal responsibility laws. This information is provided for national rules, which cover at least the central government, as well as supranational rules.[3] Country-by-country descriptions of the rules and their key features are provided in an easily accessible dataset. The paper, however, does not assess the implementation of fiscal rules or their role in fiscal performance.

The paper also constructs fiscal rules indices that summarize the rules' main elements. They build on the desirability of the rules' features discussed in the Kumar and others (2009)—in particular those supporting enforcement—and aim to make fiscal rules comparable across countries and country groups. One caveat, to be addressed in future work, is that these indices—and the dataset more generally—do not explicitly account for the degree of compliance with the rules but only the formal institutional setup.

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[1] An earlier version of the dataset was created by Xavier Debrun and Daehaeng Kim. This paper builds on this work as well as the paper by Manmohan Kumar and others (2009) both of which were instrumental for the current paper. We would also like to thank Martine Guerguil for helpful comments as well many colleagues in the IMF's Fiscal Affairs Department and the area departments for sharing their country-specific knowledge on fiscal rules which is a fundamental information source of this paper and the dataset. Jason Harris prepared the section on budgetary procedures and frameworks.

[2] These EU governance reforms include a requirement to adopt national structural budget balance rules, reduce debt annually until it reaches 60 percent of GDP, and strengthen national fiscal frameworks. For more details on the main reform elements of these agreements see Box 1.

[3] Institutional mechanisms that support fiscal discipline at the subnational level are clearly also important, in particular in more federal structures. Work on this is ongoing. See also Sutherland and others (2005) for an overview of fiscal rules for subnational governments.

The rest of the paper is structured as follows. Chapter II defines fiscal rules and compares their objectives. Chapter III reviews trends in the types of rules used during the past two decades. Chapter IV analyzes rules' key features. Chapter V presents how, in response to the crisis, existing rules have been adjusted and new rules adopted as well as how these "next generation" rules differ from earlier ones. Chapter VI describes the fiscal rules dataset and builds fiscal rules indices. Chapter VII concludes.

II. DEFINITION, OBJECTIVES, AND TYPES OF FISCAL RULES

A. Definition and Objectives

A fiscal rule imposes a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates.[4] This implies that boundaries are set for fiscal policy which cannot be frequently changed and some operational guidance is provided by specifying a numerical target that limits a particular budgetary aggregate.

Rules aim at correcting distorted incentives and containing pressures to overspend, in particular in good times, so as to ensure fiscal responsibility and debt sustainability. Two main explanations have been put forward to account the resulting deficit bias: governments' shortsightedness (e.g., Rogoff, 1990) and the "common pool problem" since special interest groups or "constituencies" do not internalize the overall budgetary impact of their competing demands (see Debrun and Kumar, 2007). The presence of many competing interest groups usually results in the "voracity effect" (Tornell and Lane, 1999), where different groups compete and push for overspending windfalls in good years, which leaves no room for counter-cyclical response in bad years. In currency unions, supranational rules are also aimed at internalizing the regional costs of fiscal indiscipline and establish a framework for better coordination of the monetary-fiscal policy mix (see Kumar and others, 2009). To mitigate these effects, a range of fiscal institutional innovations—including fiscal rules and medium-term budget frameworks—have been established during the last three decades around the world in support of more prudent and more balanced fiscal policies. Nevertheless, the use of fiscal rules is not entirely without concerns. These include potentially too little room to adjust to shocks, risks of distracting from spending priorities, or undermining transparency due to incentives for creative accounting (see Kumar and others, 2009).

[4] This definition follows broadly Kopits and Symansky (1998), except that they include the element of "simplicity" in their definition. While this is a desirable feature from a communication and monitoring point of view, in practice, however, fiscal rules have become increasingly more complex. Thus, simplicity is not considered a defining feature of a fiscal rule in this paper. In addition to numerical rules, fiscal rules can also establish procedures for the budgetary process ("procedural rules") with a view to establishing good practices, raising predictability, and becoming more transparent (see, for example, van Eden, Emery, and Khemani, 2012). Many countries operate procedural and numerical rules in tandem, but this paper only reports on the latter.

Fiscal rules can also serve other objectives. Economic stabilization is inherent to fiscal rules that allow fiscal accounts to adjust to variations in economic activity. Fiscal rules have also been introduced to contain the size of the government and support intergenerational equity.

Providing a credible medium-term anchor has been the pervasive motive for adopting or strengthening fiscal rules policy after the crisis experience. With public finances in distress in many economies and strong market pressures, recent efforts have focused on strengthening fiscal frameworks and the interaction among many of their main constituent elements. Adopting fiscal rules has been considered as one component that can help bridge the transition to lowering the currently high fiscal imbalances while enhancing the credibility of the consolidation path, but are clearly not a panacea if other elements, including political willingness, are not in place. This "next-generation" fiscal rules are designed and aimed to strike a better balance between sustainability and flexibility goals, as they tend to account for economic shocks, and are often complemented by a battery of other institutional arrangements (such as independent fiscal councils). While empirical evidence suggest that fiscal rules have been generally a success factor for fiscal adjustment, causality is difficult to assess (Debrun and others, 2008). It will take time to tell if the "next-generation" rules provide the envisaged contribution to fiscal discipline. Given their relatively high degree of complexity, their effectiveness will also depend on country-specific institutional capacity.

What is considered a fiscal rule in this paper and included in the dataset? Delineation lines of what constitutes a fiscal rule are not always clear. For the paper we followed the following principles:

- In addition to covering rules with specific numerical targets fixed in legislation, we consider also those fiscal arrangements, in particular expenditure ceilings, as fiscal rules for which the targets can be revised, but only on a low-frequency basis (e.g., as part of the electoral cycle) as long as they are binding for a minimum of three years. Thus, medium-term budgetary frameworks or expenditure ceilings that provide multi-year projections but can be changed annually are not considered to be rules.

- The paper only considers those fiscal rules that set numerical targets on aggregates that capture a large share of public finances—deficit, debt, expenditure or revenue—and at a minimum cover the central government level. Thus, rules for subnational governments or fiscal sub-aggregates, e.g. expenditure caps on particular spending items or those linked to the use of revenues from natural resources, are not included here.[5]

[5] See Baunsgaard and others (2012) for fiscal rules in resource-rich economies.

- Fiscal rules in the paper include de jure arrangements. The paper does not analyze if or to what degree rules have been adhered to in practice, which is, however, an important area for future work.

- Unless indicated otherwise, the paper's indicators on fiscal rules cover only those rules that took effect by end-March 2012 or for which a specific transition regime was in place at that time. Fiscal rules that were adopted, but not yet implemented, are described (including in the accompanying dataset) but not included in the charts and tables.

B. Types of Fiscal Rules

Four main types of fiscal rules can be distinguished based on the type of budgetary aggregate that they seek to constrain. The rules have different properties with regard to the objectives, operational guidance, and transparency (Table 1) (see also Kumar and others, 2009).

***Debt rules* set an explicit limit or target for public debt in percent of GDP.** This type of rule is, by definition, the most effective in terms of ensuring convergence to a debt target and is relatively easy to communicate. However, debt levels take time to be impacted by budgetary measures and therefore do not provide clear short-term guidance for policy makers. Debt could also be affected by developments outside the control of the government, such as changes in interest rates and the exchange rate, as well as "below-the-line" financing operations (such as financial sector support measures of the calling of guarantees), which could imply the need for unrealistically large fiscal adjustments. Moreover, fiscal policy may become procyclical when the economy is hit by shocks and the debt target, defined as a ratio to GDP, is binding. On the other hand, when debt is well below its ceiling such a rule would not provide any binding guidance.

***Budget balance rules* constrain the variable that primarily influences the debt ratio and are largely under the control of policy makers.** Thereby, such rules provide clear operational guidance and can help ensure debt sustainability. Budget balance rules can be specified as overall balance, structural or cyclically adjusted balance, and balance "over the cycle." While the first type of rule does not have economic stabilization features, the other three explicitly account for economic shocks. However, estimating the adjustment, typically through the output gap, makes the rule more difficult to communicate and monitor. A balance "over the cycle rule" has the added disadvantage that remedial measures could be put off to the end of the cycle. While interest payments is the only expenditure item not directly under the control of policy makers—even though spending rigidities may also complicate achieving short-term targets—excluding them from the rule weakens the link to debt sustainability. Similarly, a "golden rule," which targets the overall balance net of capital expenditure, is less linked to debt. "Pay-as-you-go" rules stipulate that any additional deficit-raising expenditure or revenue measures must be offset in a deficit-neutral way. Since they do not set numerical

limits on large budgetary aggregates, they are typically considered procedural rules and thus not counted in the database here as numerical fiscal rules.[6]

Table 1. Properties of Different Types of Fiscal Rules

Type of rule	Pros	Cons
Debt rule	• Direct link to debt sustainability • Easy to communicate and monitor	• No clear operational guidance in the short run as policy impact on debt ratio is not immediate and limited • No economic stabilization feature (can be pro-cyclical) • Rule could be met via temporary measures (e.g., below-the-line transactions) • Debt could be affected by developments outside the control of the government
Budget balance rule	• Clear operational guidance • Close link to debt sustainability • Easy to communicate and monitor	• No economic stabilization feature (can be pro-cyclical) • Headline balance could be affected by developments outside the control of the government (e.g., a major economic downturn)
Structural budget balance rule	• Relatively clear operational guidance • Close link to debt sustainability • Economic stabilization function (i.e., accounts for economic shocks) • Allows to account for other one-off and temporary factors	• Correction for cycle is complicated, especially for countries undergoing structural changes • Need to pre-define one-off and temporary factors to avoid their discretionary use • Complexity makes it more difficult to communicate and monitor
Expenditure rule	• Clear operational guidance • Allows for economic stabilization • Steers the size of government • Relatively easy to communicate and monitor	• Not directly linked to debt sustainability since no constraint on revenue side • Could lead to unwanted changes in the distribution of spending if, to meet the ceiling, shift to spending categories occurs that are not covered by the rule
Revenue rule	• Steers the size of government • Can improve revenue policy and administration • Can prevent pro-cyclical spending (rules constraining use of windfall revenue)	• Not directly linked to debt sustainability since no constraint on expenditure side (except rules constraining use of windfall revenue) • No economic stabilization feature (can be pro-cyclical)

Source: IMF staff assessment.

Expenditure rules **set limits on total, primary, or current spending.** Such limits are typically set in absolute terms or growth rates, and occasionally in percent of GDP with a

[6] Chapter V makes reference to the recent introduction of pay-as-you-go rules in Japan and the United States.

time horizon ranging often between three to five years. These rules are not linked directly to the debt sustainability objective since they do not constrain the revenue side. They can provide, however, an operational tool to trigger the required fiscal consolidation consistent with sustainability when they are accompanied by debt or budget balance rules. Furthermore, they can constrain spending during temporary absorption booms, when windfall revenue receipts are temporary high and headline deficit limits—easy to comply with. Moreover, expenditure rules do not restrict the economic stabilization function of fiscal policy in times of adverse shocks as they do not require adjustments to cyclical or discretionary reductions in tax revenues. Even greater counter-cyclicality can be achieved by excluding cyclical-sensitive expenditure items, such as unemployment support, however at the expense of creating a bigger distance to the sustainability target. Also, expenditure rules are not consistent with discretionary fiscal stimulus. However, expenditure ceilings directly define the amount of public resources used by the government, and are in general relatively easy to communicate and monitor.[7]

Revenue rules **set ceilings or floors on revenues and are aimed at boosting revenue collection and/or preventing an excessive tax burden.** Most of these rules are not directly linked to the control of public debt, as they do not constrain spending. Furthermore, setting ceilings or floors on revenues can be challenging as revenues maybe have large cyclical component, fluctuating widely with the business cycle. Exceptions are those rules that restrict the use of "windfall" revenue for additional spending. Revenue rules alone could result in procyclical fiscal policy, as floors do not generally account for the operation of automatic stabilizers on the revenue side in a downturn or ceilings in an upturn for revenue ceilings. However, like expenditure rules, they can directly target the government size.

Given the trade-offs, many countries combine two or more fiscal rules. Not all types of fiscal rules are equally apt to support the sustainability, economic stabilization, and possibly the size of government objectives, even when its design features are fine-tuned. Using a combination of fiscal rules can help address the gaps. For example, a debt rule combined with an expenditure rule would provide a link to debt sustainability while also assisting policymakers with short to medium-term operational decisions, allowing for some counter-cyclicality and explicitly targeting the size of government. This could similarly be achieved through a combination of a debt and cyclically adjusted budget balance rule.

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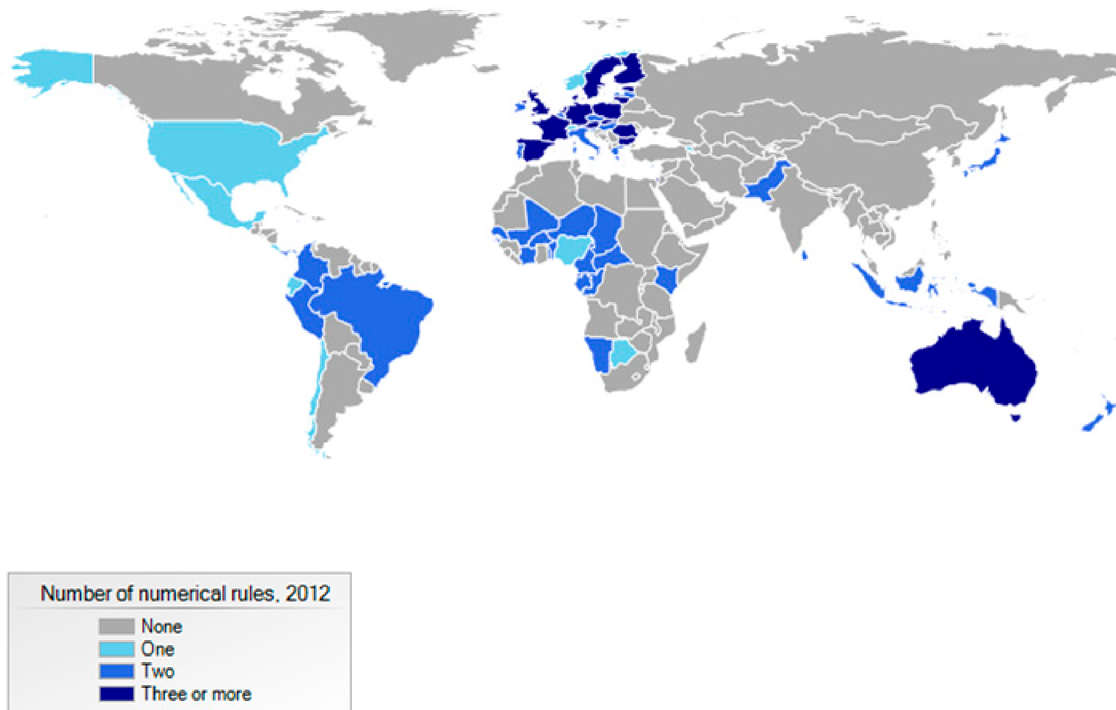
[7] Creative accounting, however, is also a challenge for monitoring expenditure rules, for example by shifting toward more tax expenditure, which would call for a broad coverage under the rule. For a detailed analysis on the properties of various design features of expenditure rules as well as experiences in Finland, the Netherlands, and Sweden, see Ljungman (2008).

III. The Past Two Decades: Fiscal Rules on the Rise

A. Who Uses Fiscal Rules and How Many?

Over the past two decades, fiscal rules have spread worldwide. In 1990, only five countries—Germany, Indonesia, Japan, Luxembourg, and the United States—had fiscal rules in place that covered at least the central government level. In Japan and Germany, fiscal rules have a long tradition dating back to as early as 1947 and 1969, respectively, though adherence to the rule was weak for most years. Over the next two decades, the number of countries with national and/or supranational fiscal rules surged to 76 by end-March 2012 (Figures 1 and 2).[8] This includes, most recently, responses to the crisis with a view to provide credible commitment to long-term fiscal discipline.

Figure 1. Countries with Fiscal Rules (National and Supranational), 2012



Source: National authorities; and IMF staff assessment.
Note: Based on fiscal rules in effect by end-March 2012. Rules that cover the same budgetary aggregate and are at the same level (either only national or only supranational) are not counted as separate rules since they constrain the same variable only in a different way. However, national and supranational rules are counted separately, since the enforcement mechanisms vary.

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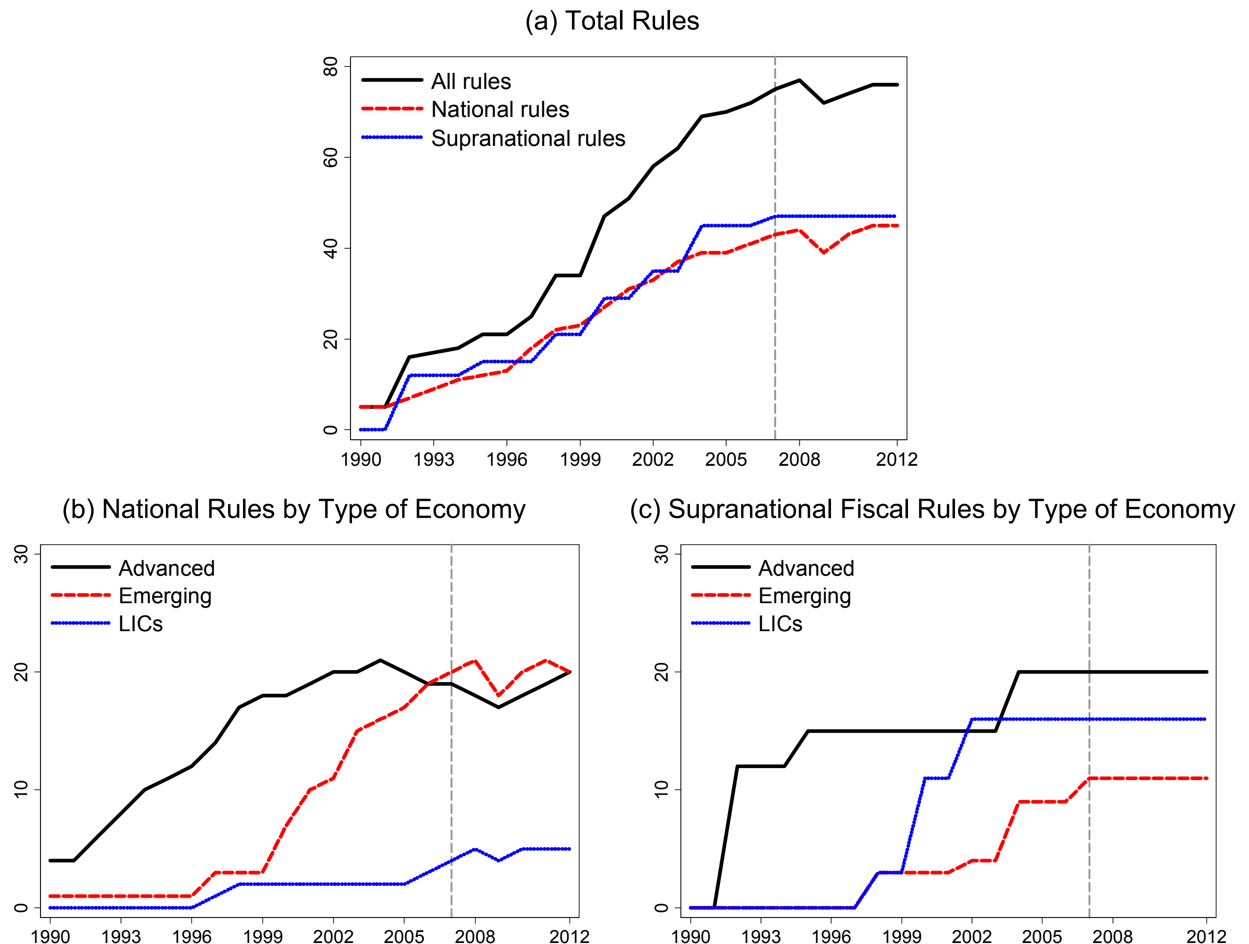
[8] The database covers 81 countries, of which five countries no longer had a fiscal rule in effect at end-March 2012 (Argentina, Canada, Iceland, India, and Russia).

The more prevalent use of *national* fiscal rules reflects responses to different pressures on public finances. They are now in effect in 45 economies (Figure 2a). Advanced economies were the frontrunners, but about a decade later rules were adopted also in a number of emerging economies, while they are only used by a few low-income countries (Figure 2b). Factors that motivated their adoption range from reigning in debt excesses that resulted from banking and economic crises in the early 1990s (e.g., Finland, Sweden) and debt crises in Latin American countries (e.g., Brazil, Peru), consolidation needs to qualify for the euro area (e.g., Belgium), and more generally attempts to reduce trends of rising deficits and debts (e.g., the Netherlands, Switzerland). In some cases, the introduction of the rules coincided with large fiscal adjustments, in others (e.g., in Finland) it followed an improvement in fiscal positions to ensure continued fiscal discipline after the crisis (Kumar and others, 2009).

Figure 2. Number of Countries with Fiscal Rules



Source: National authorities; and IMF staff assessment.
Note: Based on fiscal rules in effect by end-March 2012.

At the same time, *supranational* fiscal rules were introduced in currency unions and the EU, covering 47 members. With the objective to constrain individual countries from running fiscal policies inconsistent with the needs of a monetary union, limits of fiscal aggregates were adopted.

- In European Union (EU) member states, this comprises the 3 percent of GDP deficit and 60 percent of GDP debt ceilings included in the Maastricht Treaty in 1992 and the Stability and Growth Pact (SGP) in 1997. Moreover, the SGP also includes a provision that countries should pursue country-specific medium-term objectives (MTOs), defined in structural budget balance terms. With the "six pack reform" from November 2011 (see Box 1) a new debt reduction rule and expenditure growth benchmarks have been introduced.[9]

- The fiscal rules of the Eastern Caribbean Currency Union (ECCU) members aim to reduce the public debt-to-GDP ratios to 60 percent by 2020. ECCU members also had in place for some time an overall deficit target of 3 percent of GDP for which compliance was weak because of various shocks. This overall deficit target was dropped in 2006 and the level of the primary balance consistent with the debt target in 2020 has been used to guide fiscal policy.

- In the West African Economic and Monetary Union (WAEMU), the two "first order" fiscal convergence criteria put in place from 2000 and covering large fiscal aggregates include a balanced budget (excluding foreign-financed capital expenditures) and a public debt-to-GDP ratio no higher than 70 percent. Compliance, in particular of the budget balance, has been weak so far (see e.g., Ruggiero, 2012).

- The Central African Economic and Monetary Community (CEMAC) has a debt rule and a balanced budget in place. The specification of the latter was changed in 2008 from at least a balanced "basic fiscal balance", defined as total revenue net of grants minus total expenditure net of foreign-financed capital spending, to at least a balanced "basic structural fiscal balance"—replacing the actual oil revenue with its three-year moving average. Moreover, a rule was added that the non-oil basic fiscal balance in percent of non-oil GDP should at least be in balance. These changes were made to provide greater flexibility to volatility in oil prices, while also ensuring sustainability of expenditure.

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[9] For the dataset as well as the tables and charts in this paper, only the rules that have already taken effect are accounted for, i.e., the overall budget balance rule, the medium-term objective, and the debt rule. Since the first two both cover the budget balance they are not counted as two separate rules.

Box 1. The "Fiscal Compact" and the "Six Pack"— Two New Chapters in EU Fiscal Governance Reform

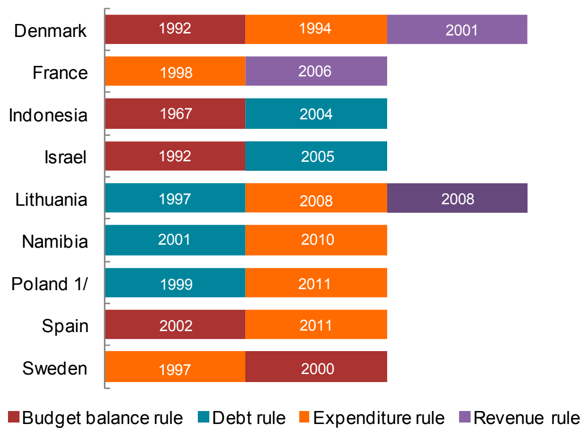
On March 2, 2012 25 members of the European Council signed an intergovernmental treaty, the so-called Fiscal Compact (formally, the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union)—an important tool, if implemented effectively, to help ensure fiscal sustainability.[1/] *In particular, the Fiscal Compact introduces several new elements for fiscal rules at the national level and reinforces the framework of fiscal governance included in the SGP. The latter had earlier been strengthened through the "six pack" of five new EU regulations and one EU directive, which took effect in December 2011. Countries are expected to adopt the newest provisions by 2014.They include:*

- **National structural budget balance rule:** The main novelty of the Fiscal Compact is the requirement, to adopt in legislation national rules that limit annual structural deficits to a maximum of 0.5 percent of GDP (1 percent of GDP for countries with debt levels below 60 percent and low sustainability risks). A transition period to the new deficit limits will be agreed with the European Commission. The Fiscal Compact may imply an upward revision of the so-called medium-term objectives, already in place under the SGP.
- **Stronger enforcement of national rules:** To ensure enforceability, countries need to establish automatic correction mechanisms at the national level, to be triggered in the event of deviations from the rule. The European Court of Justice will verify the transposition of structural balanced budget rules to national legislation; it will, however, not verify compliance with the rules.
- **New debt rule at the supranational level:** The Fiscal Compact and the "six pack" also include a commitment to continuously reduce the public-debt-to GDP ratio to the 60 percent of GDP threshold. The annual pace of debt reduction should be no less than 1/20th of the distance between the observed level and the target, starting three years after a country has left the current excessive deficit procedure (EDP). This will ensure an asymptotic convergence to the 60 percent debt threshold.
- **New expenditure benchmark at the supranational level:** The annual growth of primary expenditure, excluding unemployment benefits and subtracting revenue discretionary increases, should not exceed long-term nominal GDP growth. This benchmark applies only when a country is not in excessive deficit procedure (i.e., it overall deficit is less than 3 percent of GDP). Enforcement tools are limited.
- **Broader criteria and more automatic process to open an EDP:** In addition to non-compliance with the deficit rule, countries can now also be placed in an excessive deficit procedure (EDP)—by a qualified majority of the Economic and Financial Affairs (ECOFIN) Council—when they don't comply with the debt rule. In case of non-compliance with the deficit rule, the Fiscal Compact should in principle allow for a more automatic triggering of EDPs, as it would happen at the suggestion of the Commission unless a qualified Council majority blocks it (so-called *reverse* qualified majority).
- **Budgetary procedures and independent fiscal councils:** To ensure an effective implementation of these fiscal rules, the "six pack" sets out a number of broad recommendations to make medium-term budget frameworks more binding, prepare budgets in a more top-down sequence, report more frequently, timely, and comprehensively on fiscal developments and risks, and give a bigger role to independent councils for the preparation of budget assumptions as well as assess of compliance with the rules.

[1/] See e.g. http://ec.europa.eu/economy_finance/articles/governance/2012-03-14_six_pack_en.htm

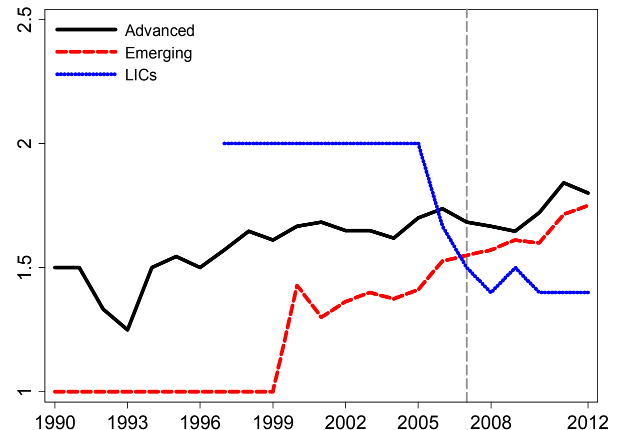
For the majority of currency union members, supranational rules are not yet complemented by national fiscal rules. By end-March 2012, of the 47 members of monetary unions and the EU, only 19 were also guided by national fiscal rules. As enforcement and compliance with supranational fiscal rules has been, at best, mixed, in most EU member states, the lack of national fiscal rules is now being addressed by the “Fiscal Compact”, which requires the adoption of a structural budget balance rule (Box 1). Members of the three other currency unions operate so far only under supranational numerical fiscal limits, but implementation here has also been uneven. Overall, about two thirds of the 76 countries with fiscal rules in 2012 operate under national rules or a combination of national and supranational fiscal rules; one third is governed only by supranational rules. The latter group includes most low-income countries (Figures 2c).

Figure 3. Selected Economies: Moving to Multiple National Fiscal Rules



Source: National authorities; and IMF staff assessment.
Note: Dates show when rules took effect or a transition regime started.
1/ From 2006–07 Poland also had a budget balance rule.

Figure 4. Average Number of National Fiscal Rules



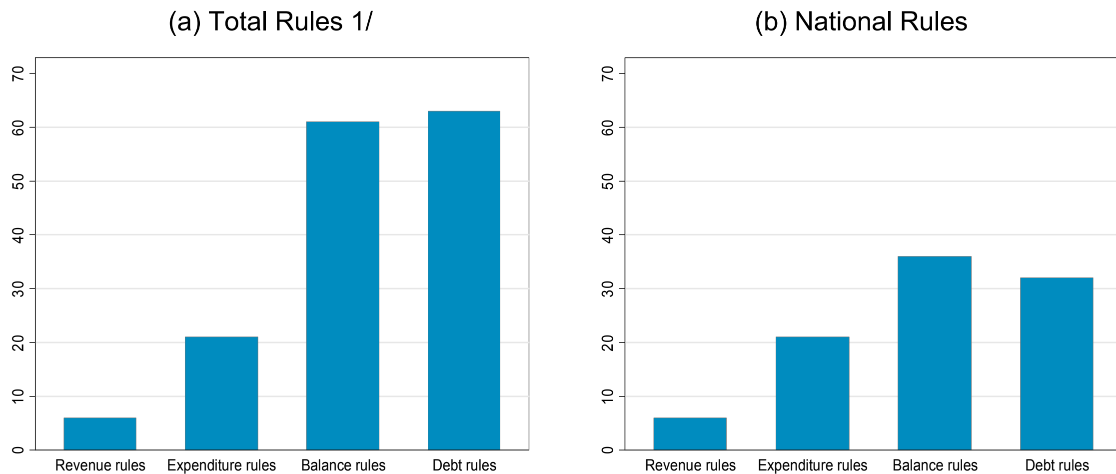
Source: National authorities; and IMF staff assessment.

Most countries have more than one fiscal rule in place today. The trend to multiple fiscal rules is in part the result of the introduction of supranational fiscal rules (which comprise two rules except for CEMAC members), but also reflects decisions to broaden national fiscal rules arrangements, in particular in emerging economies. Lessons learnt about the shortcomings or trade-offs from operating with a single rule played a role in these choices. For example, debt rules alone, while closely tied to the sustainability objective don’t provide sufficient operational guidance. Thus, for example Lithuania, Namibia, and Poland, complemented their debt rules over time with expenditure and/or budget balance rules (Figure 3). Overall, the average number of national fiscal rules increased from 1.5 to 1.7 during 1997 to end-March 2012 (Figure 4). Moreover, many (about 40 percent) of the “newcomers”, those that adopted national fiscal rules since 2000, went directly for a combination of national rules.

B. What Types and Combinations of Rules?

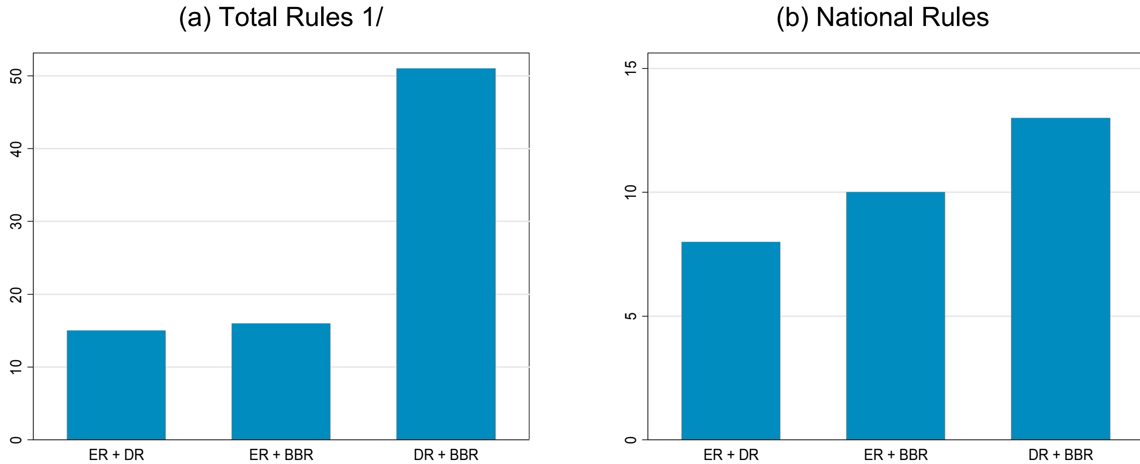
The most frequently used rules constrain debt and the budget balance, often in combination. In part, this reflects that supranational rules for members of monetary unions and the EU include these two types of rules, except the ECCU which only has a budget balance rule (Figure 5a). Across national fiscal rules, expenditure rules are also prevalent (Figure 5b), however mostly in advanced economies. Often they are combined with budget balance or debt rules to provide a greater anchor for debt sustainability (Figure 6). Revenue rules play a much more limited role, likely because they are less well suited to ensure the sustainability of public finances.

Figure 5. Types of Fiscal Rules in Use, 2012
(Number of countries with at least one fiscal rule)



Source: National authorities; and IMF staff assessment.
1/ Includes national and supranational rules.

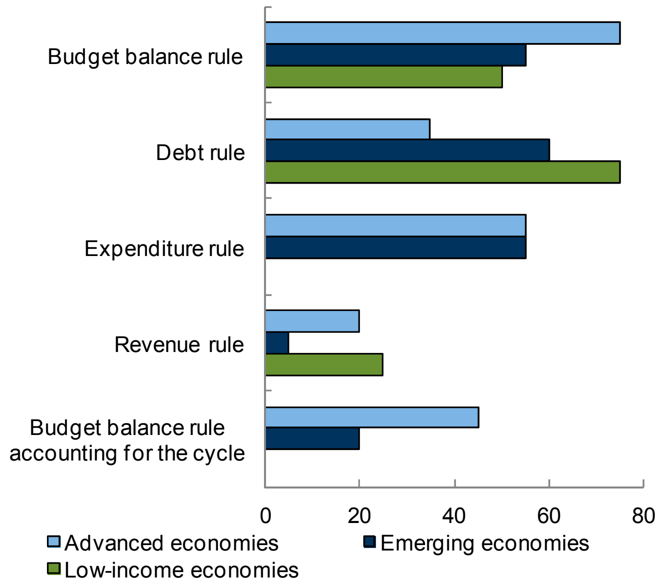
Figure 6. Widespread Combinations of Fiscal Rules in Use, 2012
(Number of Countries Combining Two Rules)



Source: National authorities; and IMF staff assessment.
Note: BBR = budget balance rule; DR = debt rule; ER = expenditure rule.
1/ Includes national and supranational rules.

Some regional differences regarding the types of fiscal rules persist.[10] In particular, debt rules are the predominant national rules for low-income countries,[11] possibly reflecting institutional weaknesses that would complicate, for example the implementation of expenditure rules. Budget balance rules that account for the economic cycle are still more prevalent in advanced than emerging economies. Even for the former country group, pinpointing the output gap is challenging but even more so for economies that still undergo structural changes. Thus, emerging economies with budget balance rules that account for the cycle tend to use thresholds of actual economic activity rather than an output gap concept (see also Chapter V).

Figure 7. Regional Differences Regarding the Type of National Fiscal Rules
(Share of countries with specific type of rule)



Source: IMF staff assessment.
Note: Includes countries with at least one national fiscal rule.

[10] Differences regarding the rules characteristics are highlighted Chapter IV.

[11] However, the sample is small and includes only four low-income countries with national fiscal rules. Other low-income countries operate under supra-national rules.

IV. Key Characteristics

A. Legislative Support

The legislative basis differs by type of rule and country. The bulk of national expenditure, balance and debt rules are embedded in statutory norms. The fewer existing revenue rules are implemented through a mix of political commitments, coalition agreements and statutory norms (Table 2). Overall, a majority of balance and debt rules are supranational rules established by international treaties. Legislative support of national fiscal rules varies between advanced and emerging and low-income countries (Figure 8). Expenditure rules are more commonly established through statutory norms in emerging and low-income economies than in advanced economies. More limited medium-term planning capacity in the former group of countries is reflected in relatively simple forms of legislated expenditure rules (e.g., expenditure growth cannot exceed trend GDP growth). In advanced economies, on the other hand, expenditure rules tend to be more closely integrated into the Medium-Term Expenditure Frameworks, which are sometimes part of coalition agreements. In advanced economies, a more diverse legislative support of fiscal rules is observed. Only few countries have enshrined fiscal rules in their constitution, most of which were adopted since 2000 (Table 3).

Table 2. Statutory Basis of Fiscal Rules 1/

	Type of Fiscal Rule			
	Expenditure	Revenue	Balance	Debt
Political Commitment	4	2	3	4
Coalition Agreement	4	1	3	4
Statutory	12	2	21	14
International Treaty 2/			41	47
Constitutional	0	1	2	1
Total	20	6	70	70

Sources: National authorities; and IMF staff assessment.
1/ Based on fiscal rules in effect by end-March 2012. The sum across columns can yield a higher number then the countries with rules as multiple rules are in place in many countries. All rules are national fiscal rules unless otherwise noted.
2/ These are all supranational fiscal rules.

Table 3. Countries with Constitutional Legal Basis

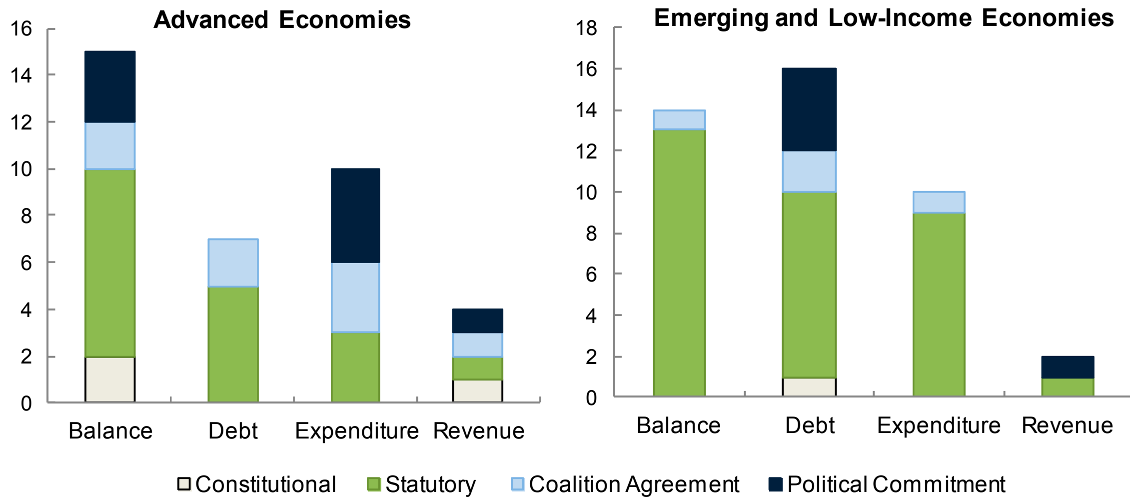
Country	Type of Rule	Year of Adoption
France	Revenue	2006
Germany	Budget balance	1969, 2009
Poland	Debt	2004
Spain	Budget balance, debt, expenditure	2011
Switzerland	Budget balance	2003

Sources: National authorities; and IMF staff assessment.
Note: Includes only rules that took effect by end-March 2012. Other countries that have adopted fiscal rules in their constitution but operational details are still being determined or include a long transition path until implementation are Italy, Hungary, and Spain. For the latter the expenditure rule has already taken effect, while the structural budget balance rule takes effect from 2020.

The desirable legislative support depends on country-specific circumstances. Rules enshrined in higher-level legislation are more difficult to reverse and therefore tend to be longer lasting since they are more difficult to modify even with a change of government. While higher-level legislation thus tends to confers more stability to the framework, this may not necessarily enhance the effectiveness of the fiscal rules if enforcement mechanisms and

accountability procedures are weak. For some countries, with weak institutions, the simplicity of adoption and rapid implementation may also be key factors in deciding which legislative framework to use.

Figure 8. Statutory Basis of National Fiscal Rules by Type of Rule and Economy, 2012

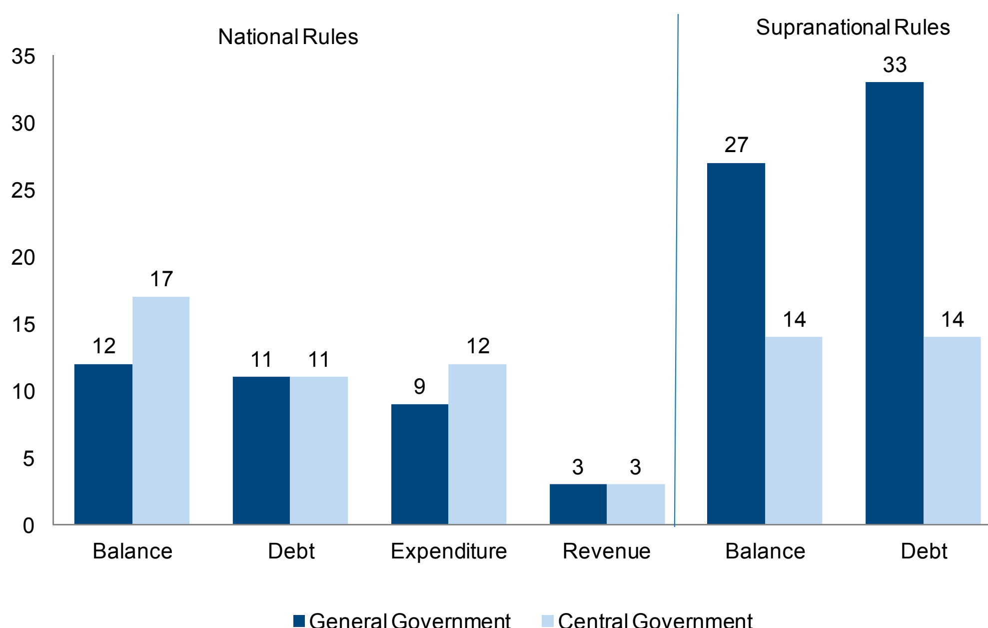


Sources: National authorities; and IMF staff assessment and calculations.
Note: Based on fiscal rules in effect by end-March 2012.

B. Coverage of Government

While the majority of supranational balance and debt rules covers general government aggregates, this is the case for less than half of the national rules. In monetary unions the importance of constraining general government arises from the potential moral hazard problems that could result in small countries engaging in fiscal neglect. Moreover, in the case of supranational rules their higher status of legislation makes it more likely for them to extend to the general government. In the case of national expenditure rules and budget balance rules, coverage often does not extend beyond the central government, likely reflecting autonomy and coordination issues with subnationals. For national revenue and debt rules, coverage of the general government is about as frequent as coverage of the central government only (Figure 9).

Figure 9. Coverage of Fiscal Rules, 2012



Sources: National authorities; and IMF staff assessment and calculations.
Note: Based on fiscal rules in effect by end-March 2012. "General government" comprises also those rules that cover the non-financial public sector.

C. Coverage of Aggregate

About 20 percent of countries with fiscal rules in place by end-March 2012 exclude certain revenue and/or expenditure items from the target variable. Among these countries, the item that is most frequently excluded from targeted fiscal aggregates is capital expenditure. A rule that allows net lending only for investment purposes is termed a "golden rule" (Table 4). A few countries also exclude interest payments and cyclically-sensitive expenditure from target variables.

Table 4. Coverage of Aggregate 1/

Item Most Frequently Excluded	Countries Where Exclusions Apply (Type of Rule)
Interest Payments	Finland (ER), France (ER), Spain (ER), Sweden (ER)
Cyclically-Sensitive Expenditure	Denmark (ER), Finland (ER), Switzerland (BBR)
Capital Expenditure	National: Brazil (ER, DR), Ecuador, (ER), Hong Kong SAR (BBR), Japan (BBR) Supranational: WAEMU and CEMAC (BBR, DR, foreign financed capital spending excluded)

Sources: National authorities; and IMF staff assessment.
Note: Based on fiscal rules in effect by end-March 2012. BBR = budget balance rule; DR = debt rule; ER = expenditure rule.

Fiscal sustainability considerations argue for a more comprehensive coverage but other objectives and controllability arguments are put forward to exclude certain items. A broad coverage aims at managing total revenue and expenditure, and makes the target more transparent and easier to monitor. Nevertheless, it is sometimes seen as desirable to exclude, for example, capital expenditure since it is generally expected to positively contribute to long-term growth. However, this can be problematic: it weakens the link with gross debt; not all capital expenditure is necessarily productive and there are other items such as health care and education expenditure that may raise potential growth even more. Excluding interest payments and cyclically-sensitive expenditure from target variables is also often discussed since they are not under the control of governments in the short run and require short-term adjustments in other expenditure categories, with capital spending often the easiest to cut. An argument for including cyclically-sensitive expenditure is that most cyclical sensitivity is on the revenue side.

D. Escape Clauses

Escape clauses can provide flexibility to rules in dealing with rare events. They should include (i) a very limited range of factors that allow such escape clauses to be triggered in legislation, (ii) clear guidelines on the interpretation and determination of events (including voting rules), and (iii) specification on the path back to the rule and treatment of accumulated deviations (see Kumar and others, 2009).

Formal escape clause provisions can mostly be found in more recently introduced rules and trigger events differ. They exist for budget balance (and debt rules) in Brazil, Colombia, Germany, Mauritius, Mexico, Jamaica, Panama, Peru, Romania, Slovakia, Spain, and Switzerland (Table 5). In all cases, the escape clause provisions allow for temporary deviations from the rules in the event of a recession or a significant growth slowdown. Other triggers include, for example, natural disaster (Brazil, Germany, Jamaica, Mauritius, Panama, Peru, Slovakia, Switzerland), and banking system bailout (Slovakia).[12]

Escape clauses have at times not been well-specified. While it is not straightforward to be at the same time comprehensive and specific about potential trigger events, in the past escape clause provisions have in several cases left too large a room for interpretation. For example, until the constitutional change in 2009, the German rule allowed for deviations in case of "a disturbance of the macroeconomic equilibrium" which was frequently used to justify exceeding the deficit ceiling. In India, the escape clause allowed the government to deviate from the targets in exceptional circumstances "as the central government may specify." The Swiss and the Spanish fiscal rule also include a rather broad "exceptional circumstances" provision, however they need to be justified by certain events (such as natural disasters,

[12] An example for escape clause for a revenue rule, which aims to limit the size of government rather than ensure sustainability, is the case of Denmark. Derogation from the rule is allowed if a tax rate is raised for environmental reasons or to fulfill Denmark's EU obligations and if extra revenue is used to reduce other taxes.

severe recession etc.). In the case of Switzerland this needs to be determined by a supermajority in parliament and in both countries accompanied by a medium-term correction plan.

Table 5. Fiscal Rules with Escape Clauses

Country and Date	Natural disaster	Economic recession	Banking system bailout, guarantee schemes	Change in Government	Change in budget coverage	Other events outside govt. control	Voting mechanism defined	Transition path defined
Brazil (since 2000)	X	X	-	-	-	-	X	-
Colombia (since 2011)	-	X	-	-	-	X	-	-
Germany (since 2010)	X	X	-	-	-	X	X	X
Jamaica (since 2010)	X	X	-	-	-	X	-	-
Mauritius (since 2008)	X	X	-	-	-	X	-	-
Mexico (since 2006)	-	X	-	-	-	-	-	-
Panama (since 2008)	X	X	-	-	-	X	-	X
Peru (since 2000)	X	X	-	-	-	X	-	X
Romania (since 2010)	-	X	-	X	X	X	-	X
Slovakia (since 2012)	X	X	X	-	-	X	-	-
Spain (since 2002)	X	X	-	-	-	X	X	X
Switzerland (since 2003)	X	X	-	-	-	X	X	X
EU member states/ euro area (since 2005)	-	X	-	-	-	-	-	X
WAEMU (since 2000)		X	-	-	-	-	-	-

Source: National authorities; and IMF staff assessment.
Note: For more details about the escape clauses see Appendix 1.

Escape clauses are embedded to some extent in supranational fiscal rules of the EU and WAEMU. The escape clause introduced in the EU with the 2005 reform of the Stability and Growth Pact (SGP) allows for an excessive deficit procedure not to be opened if the deficit is close to its ceiling and the breach is temporary (both conditions have to be fulfilled simultaneously). It also allows for an extension of deadlines for the correction of the excessive deficit in case of adverse economic developments. In the WAEMU, the escape clause is triggered by a large and temporary negative shock to real GDP and revenues, but the clause does not specify the transition path back to the rule (Table 5).

E. Automatic Correction Mechanisms

Automatic corrections of ex post deviations from the rule can raise their enforceability, but they are so far built into very few rules. Like with other elements of rules, specifying the mechanism clearly and anchoring it legislation, can help adherence but it is ultimately the political will that matters. Below some example are summarized.

- The Swiss and German structural budget balance rules contain automatic correction mechanisms ("debt brakes") (see German Federal Ministry of Finance, 2011; and Bodmer 2006). In both countries, deviations from the structural budget balance rule (positive or negative) are stored in a notional account. When the accumulated deviation exceeds a threshold improvements in the structural balance are required

within a pre-defined timeframe to undo these deviations. The main differences in both countries are the thresholds (1.0 percent of GDP in Germany per ordinary law and 1.5 percent per constitution; and 6 percent of expenditure in Switzerland), and the type of deviations that need to be corrected. In Germany, only those deviations that did not result from errors in real GDP growth projections enter the notional account, while in Switzerland all misses are tallied up. The latter is more transparent but provides less flexibility to accommodate errors outside the control of the government. In Switzerland the excess amount must be eliminated within the next three annual budgets. In Germany, overruns only need to be reduced during an economic recovery to avoid a procyclical tightening and can be corrected via expenditure and revenue measures.

- Poland's and Slovakia's debt rules, which set a 60 percent debt of GDP ceiling, include thresholds that trigger actions to avoid that the rule is missed. In the case of Slovakia, when debt-to-GDP ratio reaches 50 percent, the Minister of Finance is obliged to clarify the increase to parliament and suggest measures to reverse the growth. At 53 percent of GDP, the cabinet shall pass a package of measures to trim the debt and freeze wages. At 55 percent, expenditures would be cut automatically by 3 percent and next year's budgetary expenditures would be frozen, except for co-financing of EU funds. At 57 percent of GDP, the cabinet shall submit a balanced budget.[13] Ideally, the later trigger points would not be needed if effective action is taken earlier on. A caveat is that triggers do not account for the cyclical position of the economy.

- So-called sequesters are another form of automatic corrections. In the United States, due to the failure of the Joint Select Committee on Debt Reduction to reach agreement on deficit-reduction proposals, automatic spending cuts (sequesters) are scheduled to take effect from January 2013. In this case, this would be a one-time adjustment to the expenditure path rather than a recurrent mechanism embedded in a fiscal rule framework. Also, sequesters tend to have the disadvantage of creating a bias against capital spending which is the easiest to cut quickly. This was the experience of the United States in the 1990s.

Under the "Fiscal Compact," countries' national structural budget balance rules will also need to include an automatic correction mechanism. In light of the role that such mechanisms can play to avoid a ratcheting-up of debt from target misses, the 25 EU members that signed the treaty have committed to create appropriate mechanisms, in line with guidelines to be issued by the European Commission.

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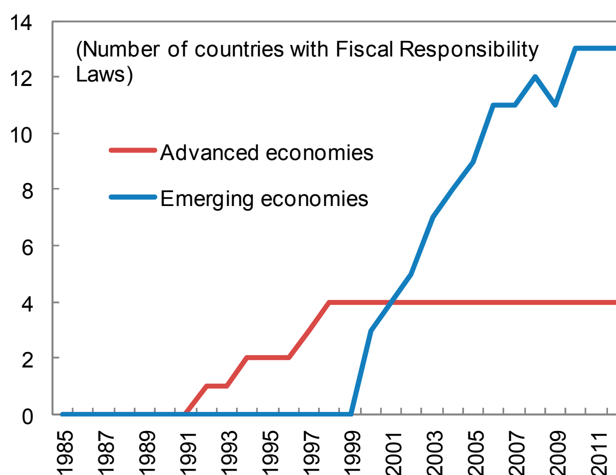
[13] After 2017 the debt limit will be lowered to 50 percent of GDP, and the correction mechanism will start to operate when the debt-to-GDP ratio approaches 40 percent of GDP.

F. Supporting Arrangements

Effective implementation and monitoring of fiscal rules often requires a number of supporting arrangements and good institutional capacity (see Kumar and others, 2009). For example, reliable data availability and technical forecasting capacity is needed to ensure sufficient degree of accuracy in budgetary aggregates forecasting to avoid the risk that large deviations from the announced fiscal policy stance undermine rules credibility. Budget reporting systems need to be comprehensive in terms of aggregates covered, and sufficiently developed to produce in-year and timely end-year reports. This allows internal monitoring of the adherence to the rule, and provides an opportunity to signal policymakers in time if policy changes are needed. Internal and external audit systems are also needed to ensure accountability. Finally, fiscal data—consistent with the budget reporting system—should be publicly released in line with a pre-announced calendar to allow external monitoring of the rule.

Fiscal rules should be underpinned by a set of institutional arrangements to convert the intent of the fiscal rule into the reality of budget policy and execution. A top-down budgeting process, where the aggregate expenditure limit is decided before the distribution of expenditures helps reconcile the conflict between unlimited spending demands from line ministries and a finite budget constraint. Medium-term budget frameworks (MTBFs), such as those used in Australia, France, Sweden, and the United Kingdom, prioritize, present and manage both revenue and expenditure over a multi-year framework at the same level as budget appropriations. This enables governments to demonstrate the impact of current and proposed policies over the course of several years, set future budget priorities, and ultimately achieve better control over public expenditure. Presenting the budget over a multi-year horizon, demonstrates ex ante whether government policy is consistent with the fiscal rule, what policy actions are necessary to bring it into line in the event that it is not, and increases the timeframe available to make policy decisions in order to meet the requirements of fiscal rules. Coverage of MTBFs, which differs widely across countries, affects the link to fiscal rules. Effective budget execution systems, such as commitment controls, arrears monitoring and cash management systems are essential to ensure that budget outcomes are in line with budget appropriations.

Figure 10. Trends in Fiscal Responsibility Laws



Sources: Corbacho and Schwartz (2007); national authorities; and IMF staff assessments.

Fiscal rules can be supported by fiscal responsibility laws (FRLs) which typically set out procedural and transparency requirements, and in some cases also numerical rules. Fiscal responsibility laws—i.e., laws that

elaborate on the government's collective responsibility to parliament for macro-fiscal management (Lienert, 2010)—have become particularly widespread in emerging economies over the last decade (Figure 10). In some countries, e.g. in Colombia, Jamaica, Pakistan, Panama, Peru, Spain and Sri Lanka, fiscal responsibility laws contain specific numerical targets of the national fiscal rules (Appendix 5). In others—e.g., in Australia, and New Zealand—the fiscal responsibility laws focus more on procedural aspects, lay out transparency requirements, and the need for the government to detail the fiscal strategy in the budget documents.

An increasing number of advanced and some emerging economies are using independent bodies to further enhance the credibility of their fiscal rules. Independent Fiscal Councils, i.e. institutions with a specific mandate to assess and monitor the implementation and impacts of fiscal policy, exist also in some countries that do not have national fiscal rules in place (e.g., in Belgium and Canada), they play a specific role in enforcing rules by providing an independent voice on their implementation (Table 6). One example is the Swedish Fiscal Policy Council which monitors compliance with the budget balance rule, assesses whether current fiscal policy is consistent with fiscal sustainability, and evaluates budget transparency and the quality of forecasts. Fiscal councils or independent committees can also provide key budgetary assumptions and methodologies—e.g., for the calculation of potential GDP and reference commodity prices in Chile—which are key inputs into the implementation of rules. Following the crisis, a number of countries have established, or are in the process of establishing, fiscal councils (including Ireland, Portugal, Romania, Serbia, and the United Kingdom) (see e.g., Calmfors, 2012; and Debrun, Gerard, and Harris, 2011).

Table 6. Enforcement of Fiscal Rules through Independent Bodies

Country	Independent body sets budget assumptions	Independent body monitors implementation	National fiscal rules[1/]
Hungary [2/]		2009	--
Ireland		2011	--
Portugal		2011	--
Romania		2010	ER
Serbia		2011	BBR
Sweden		2007	BBR; ER
Belgium	1993		--
Canada	1998	1998	--
Chile	2001		BBR
Luxembourg	1990		ER; DR
Netherlands	1994		ER
Slovenia	2000	2010	--
United Kingdom	2010	2010	BBR; DR
United States		2011	ER

Sources: National authorities; and IMF staff assessment.
[1/] Includes only those rules in effect by end-March 2012.
[2/] In Hungary, the fiscal council was significantly weakened following the 2011 reorganization which reduced its budget and eliminated its dedicated staff. The debt rule will take effect from 2016.
BBR=budget balance rule; DR=debt rule; ER=expenditure rule.

V. "The Next-Generation Fiscal Rules:" Responses to the Crisis

During the crisis, many countries put their fiscal rules into abeyance. The extreme output shock strayed many economies away from the limits imposed by rules. Moreover, the desire to provide countercyclical stimulus measures went in most cases beyond the constraints for normal times. Since few counties had escape clauses in place, rules were either not enforced or adjusted by loosening the original ceilings while also defining an adjustment path that provided some flexibility given the high level of economic uncertainty. Table 7 provides some country examples.

Table 7. Fiscal Rules during the Crisis: Some Examples of Adjustments

Country	Description of Revisions to Rule
Bulgaria	The expenditure rule (ceiling on the expenditure-to-GDP ratio of 40 percent) was discontinued in 2010 and 2011, after its breach in 2009. The rule was reintroduced in 2012. The budget balance rule was adjusted from a balanced budget or surplus (2006-08) to reducing the overall balance continuously to below 3 percent of GDP; from 2012 the deficit limit is 2 percent of GDP. Both the expenditure and budget balance rule were recently strengthened since they were established with an amendment in the Organic Budget Law, which came into force in January 2012.
Chile	The ceiling under the structural budget balance rule was widened from a surplus of 1 percent of GDP (2001-07) to a surplus of 0.5 percent of GDP in 2008, and structural budget balance of zero in 2009. After using a de facto escape clause to accommodate countercyclical measures and a widenening of the deficit, the current administration (2010-14) specified a target path to converge to 1 percent of GDP structural deficit by 2014.
Denmark	From 2009 the expenditure rule related to public consumption was revised to reduce its share in terms of cyclically adjusted GDP to 26.5 percent by 2015. The structural budget balance target was revised from a surplus target by 2010 (set in 2001), to at least balance in 2011 to 2015 (set in 2007), to a structural deficit of less than 0.5 percent in 2015 and a balanced structural budget by 2020 (set in 2009).
Finland	Since 2007 the government targeted a structural surplus of 1 percent of potential GDP but decided in February 2009 that it can temporarily deviate from the target if structural reforms are undertaken to improve general government finances in the medium or longer term. Since 2011, a target for central government balance of 1 percent deficit is followed. The debt reduction rule was abandoned from 2008 and adjusted in 2011 with a view to achieve a substantial reduction in the central government debt-GDP ratio by the end of the parliamentary term (2015).
Israel	The ceilings of the Deficit Reduction Law (DRL), were relaxed in the biannual budget adopted in July 2009 to allow a budget deficit of 6 and 5.5 percent of GDP for 2009 and 2010 and real growth of expenditure of 3 percent for 2009. The Deficit Reduction and Budgetary Expenditure Limitation Laws (2010) set a transition path to 2014 (1 percent of GDP deficit).
Panama	Budget balance and debt rules were revised in 2009. The law limits the deficit of the nonfinancial public sector at 1 percent of GDP and sets a target for public debt at 40 percent of GDP by 2015. The former was adjusted in June 2009 to a deficit ceiling of 2-2.5 percent of GDP, with the gradual transition period extended to 4 years. Under the new rules, the non-financial public sector ceiling can be relaxed depending when real GDP growth in the U.S. and Panama falls below specified thresholds. The debt target was extended to 2017.
United Kingdom	From Nov. 2008-Dec. 2009, the government departed from its budget balance and debt rules and adopted a temporary operating rule: "to set policies to improve the cyclically adjusted current budget each year, once the economy emerges from the downturn, so it reaches balance and debt is falling as a proportion of GDP once the global shocks have worked their way through the economy in full." For the rules see Appendix 1.

Source: National authorities; and IMF staff assessments.

A few countries could build on their pre-crisis reforms to anchor the exit from the crisis. This includes Germany, which enshrined a structural budget balance rule in its constitution (deficit ceiling of 0.35 percent of GDP for the federal government and structurally balanced budgets for the Länder). After a transition period, starting in 2011, it will take full effect in 2016 for the federal government and 2020 for the states.

Many other countries established new rules or overhauled existing ones (Table 8). Multiple motivations were typically behind these decisions: reassuring markets about the sustainability of fiscal policy and public finances; committing to and locking in sustained adjustment efforts; as well as guiding expectations about the medium-term fiscal stance.

Table 8. Types of Recently Adopted National Fiscal Rules (since 2010) 1/

Type of rule	Countries
Budget balance rule 2/	Austria, Colombia, Italy, Portugal, Serbia, Spain, United Kingdom
Pay-as-you-go rule 3/	Japan, United States
Debt rule	Hungary 4/, Serbia, Slovakia, Spain, United Kingdom
Expenditure rule	Ecuador, Israel, Japan 5/, Namibia, Poland, Romania, Spain, United States 6/

Sources: National authorities; and IMF staff assessment.
1/ The table also includes rules that were adopted but have not yet taken effect.
2/ All of these budget balance rules account for the economic cycle.
3/ The pay-as-you-go rules are considered procedural rather than numerical rules and thus not counted in the dataset.
4/ Constitutional requirement to cut the government debt-to-GDP ratio annually until it falls to below 50 percent of GDP, starting from 2016.
5/ Limits on expenditure as part of the Medium-term Fiscal Framework introduced in 2010.
6/ Discretionary spending caps enacted in August 2011 and automatic spending cuts (sequesters) scheduled to take effect from January 2013.

While many reforms concern European countries hardest hit by the crisis, the trend is broader as the below examples show.

- Most EU member states for which new rules already took effect are transition economies (e.g., Poland, Romania, and Slovakia), while for some others a transition period was adopted (Austria, Hungary, Spain) (see Appendix Table 1). The process in the EU will speed up with the "Fiscal Compact" under which countries are required to adopt in their constitution or other durable legislation a structural budget balance rule by 2014 (see Box 1).

- In Spain the constitutional amended from September 2011 and its corresponding organic legislation (2012) require that the structural deficit for all levels of government stay within the limits set by the European Union, and set debt limits for each level of government. The rule will enter into force from 2020.

- Portugal's new budgetary framework law (May 2011) establishes that the structural budget balance cannot be less than the medium-term objective in the Stability and Growth Pact.

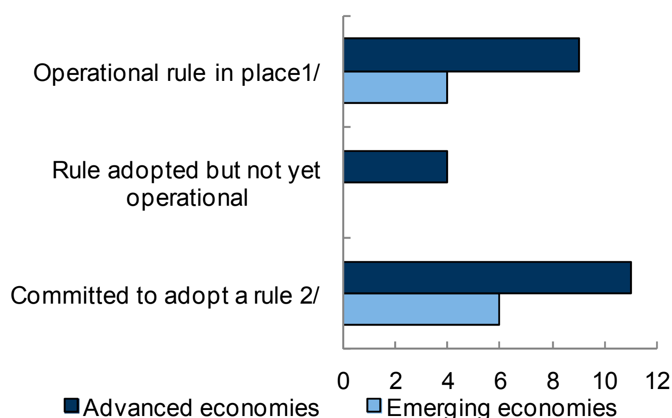
- Austria passed an amendment to the federal budget law stipulating that, from 2017 onward, the structural deficit at the federal level (including social insurance) shall not exceed 0.35 percent of GDP.

- Italy approved a constitutional amendment (April 2012) that introduces the principle of a balanced budget in structural terms with details and implementation principles to be specified in secondary legislation by end-February 2013.

- Outside the EU, for example, Colombia adopted a structural budget balance rule with a 1 percent of GDP deficit limit, taking effect in 2022. Serbia introduced a balanced budget rules which corrects for past deficit deviations and allows a partial operation of automatic fiscal stabilizers; and a debt ceiling.

These "next-generation" fiscal rules explicitly combine the sustainability objective with more flexibility to accommodate economic shocks. Following the examples of earlier adopted rules in Chile[14], Germany, and Switzerland, many of the new rules set budget targets in cyclically adjusted terms (e.g., Austria, Colombia, Portugal, Spain, United Kingdom) or account for the cycle in other ways (e.g., Panama, Serbia) (Figure 11). Some also correct automatically for past deviations with a view to avoiding the "ratcheting up" effects of debt (e.g., Serbia, and the "debt brakes" in Germany and Switzerland). Others combine new expenditure rules with new or existing debt rules thereby providing operational guidance as well as a link to debt sustainability—by operating the rules in unison one of these criteria would be missing (e.g., Israel, Poland).

Figure 11. Number of Countries with Budget Balance Rules Accounting for the Cycle
(Number of countries)



Sources: National authorities; and IMF staff assessment.
1/ Includes those with a clearly specified transition path.
2/ Includes those EU member states that have signed the Fiscal Compact but have not yet adopted a rule that accounts for the cycle.

[14] The fiscal rule in Chile not only accounts for the economic cycle but also for deviations of copper and molybdenum prices from their long-term trends.

But the greater complexity of the frameworks of rules also creates new challenges. The increased number of rules, their interaction, and sophistication can complicate implementation, and make compliance more difficult to explain and monitor. To address the first challenge, several countries are reforming their budgetary procedures and medium-term budgetary framework (e.g., in Austria, Greece, Ireland, Portugal). Fiscal councils can play an important role to with the second challenge. In a number of countries (see Chapter IV.F) recent governance reforms have set up, or adopted plans for, independent fiscal councils. Such bodies can raise voters' awareness regarding the consequences of certain policy paths, helping them reward desirable options and sanction poorer ones. While, the existence of fiscal councils alone, and their ability to increase public awareness, may not be sufficient to achieve good outcomes (see Debrun, Harris, and Gerard, 2012), combined with fiscal rules, they can potentially raise the reputational risk of noncompliance for governments and provide an additional tool of enforcement.

VI. Fiscal Rules Dataset and Fiscal Rules Index

This chapter describes the fiscal rules dataset and derives a set of fiscal rules indices. We present different methodologies to construct indices that summarize the fiscal rules' key features, and analyze their recent trends, particularly during the crisis. More details, including on robustness checks of the indices, and preliminary correlation between the indices and changes in general government debt are included in Appendices 3 and 4.

A. Setup of the Dataset

The dataset covers all IMF members for which the use of national and supranational fiscal rules was identified during 1985 to end-March 2012.[15] It only includes those rules that have taken effect already or where clear transition regimes have been specified; the ones adopted but not yet in place are part of the descriptive section but not the codification. A variety of sources were used to compile information on fiscal rules. The primary sources are assessments of fiscal framework legislations, published and unpublished country documents, as well as discussions with country officials, input from IMF staff, and the EU fiscal rules database and related documents. The dataset will be regularly updated.

The dataset includes about 70 variables on fiscal rules. It comprises quantitative and qualitative information on various characteristics, such as the number and type of rules, legal basis, coverage, escape clauses, enforcement, and supporting procedures. A description of each rule and its key elements is also provided.

[15] Appendix 2 provides the list of countries in the dataset.

Each of the above qualitative characteristics is codified in the dataset. For most of the characteristics a binary coding was used with a score of one if a country's fiscal rule had a specific feature and a score of zero otherwise; few design features, such as the legal basis, allow greater differentiation (Box 2). For all characteristics, a higher score reflects the presence of a feature in line with those identified earlier studies as supporting the rule's effectiveness, such as a high legal basis, wider coverage, strong enforcement procedures (e.g., Kumar and others, 2009; Debrun and others, 2008).

Box 2. Score by Fiscal Rules Characteristics

The following scores were assigned to each characteristic of national and supranational fiscal rules and by types of rules,[1/] when applicable:

Legal basis (national rules only): What is the highest legal basis of the rule? [2/]
1: Political commitment,
2: Coalition agreement,
3: Statutory,
4: Constitutional.

Coverage: Which sector of the government is covered by the rule?
1: Central government,
2: General government or wider public sector.

Enforcement: Are these enforcement mechanisms in place?
- Formal enforcement procedure (Yes: 1, No: 0).
- Monitoring mechanism of compliance outside the government (Yes: 1, No: 0).

Supporting procedures and institutions (national rules only): Are these procedures or institutions in place?
- Multi-year expenditure ceilings (Yes: 1, No: 0).
- Fiscal responsibility law (Yes: 1, No: 0).
- Independent body setting budget assumptions (Yes: 1, No: 0).
- Independent body monitoring budget implementation (Yes: 1, No: 0).

Flexibility: Are these flexibility characteristics in place?[3/]
- Clearly-defined escape clauses (Yes: 1, No: 0).
- Fiscal balances defined in cyclically adjusted terms (Yes: 1, No: 0).

1/ The four types of fiscal rules in the dataset are budget balance rules (BBR), debt rules (DR), expenditure rules (ER), and revenue rules (RR).

2/ The differentiation in the legal basis is only relevant for national rules since all supranational rules are based on international treaties.

3/ The baseline overall index does not include the flexibility variables (see Chapter VI.B for details).

Some degree of judgment is needed in assigning the scores. A genuine commitment to fiscal discipline is key to the rule's successful implementation. The scoring captures, to the extent possible, specific features that would increase the effectiveness of the rules. For instance, to get a score of one, escape clauses need to be clearly defined to allow the use only in well-specified exceptional circumstances. For effective enforcement and accountability, fiscal agencies that project and monitor fiscal outturns should be independent, yielding in a score of one. However, a high score can well coexist with poor fiscal outcomes because the presence of a feature does not necessarily imply that it is also soundly implemented.

B. Fiscal Rules Index: Methodology and Findings

Methodology

The overall fiscal rules index is created from a set of sub-indices. To summarize the fiscal rules' main features, the paper develops sub-indices for each type of rules and each key characteristic, which are then combined into an overall index (Figures 12 and 13). Acknowledging the challenge to capture commitment to fiscal discipline through a set of indicators that are variably important in fostering fiscal restraint, the overall index does not include the "flexibility" characteristic listed in Box 2. [16] This choice was made to address the concern that more sophisticated rules may not be equally suited for all countries, in particular when sustainability is the main objective, and since such rules also create new challenges for monitoring and effective implementation.[17] However, when well-designed and communicated, flexibility features are in fact aimed to raise the credibility of rules because they do not risk being breached to avoid procyclical tightening in downturns.

Figure 12 illustrates the indicators entering the four sub-indices for each type of fiscal rules.[18] Each sub-index is a simple sum of its five or six indicator terms (legal basis, coverage, formal enforcement procedure, expenditure ceilings, fiscal responsibility law, and independent body setting budget assumptions and monitoring the budget implementation).[19]

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[16] Kumar and others (2009) define an index of strength of fiscal rules by aggregating the following variables using the principal component analysis: (i) enforcement score; (ii) coverage score; (ii) legal basis score; (iii) supranational rules score; (iv) index of supporting procedures for monitoring of compliance and enforcement; (v) flexibility score; (vi) average number of fiscal rules; and (vii) the ratio of national to total fiscal rules in each country. Because of the challenges for monitoring and implementation that more sophisticated rules may create, this paper defines a baseline index including only key characteristics of the rules.

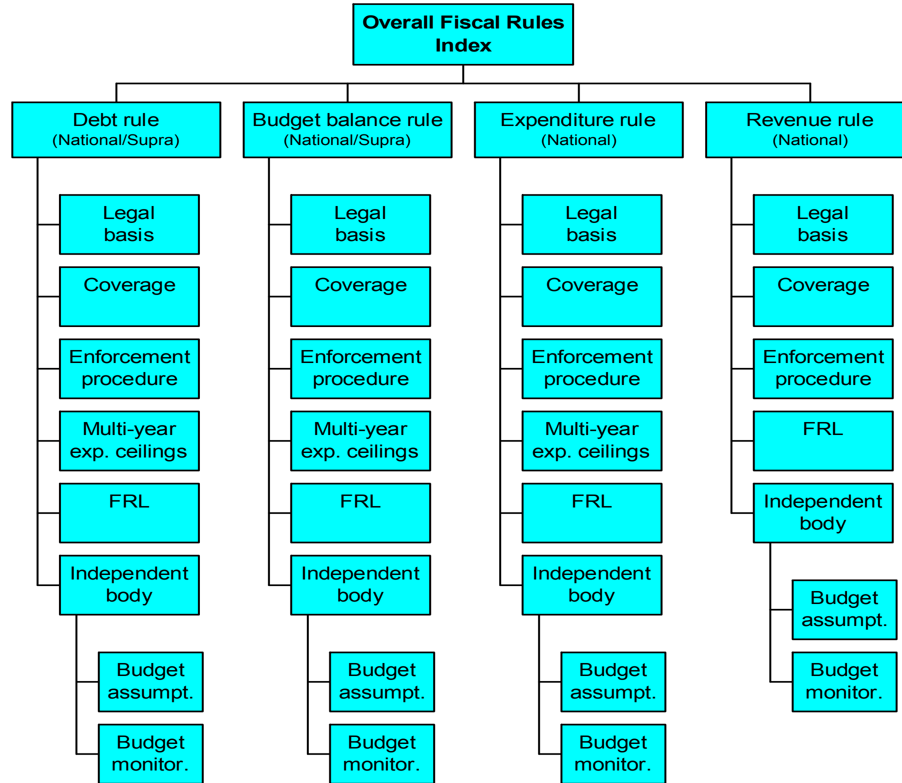
[17] As part of the robustness check (Chapter VI.C), the flexibility features are included.

[18] Each sub-index is also defined at the national and supranational level. The sub-index for revenue rules does not cover those rules that aim only at controlling the size of the government.

[19] The indicators range between zero and one, with the exception of the coverage and the legal basis. These variables are re-scaled to run between zero and one before entering the composite scores.

This aggregation method has the advantage of being straightforward and transparent.[20] The generated sub-indices are standardized to run between zero and five.

Figure 12. Fiscal Rules Sub-indices by Type of Rule



Source: IMF staff.

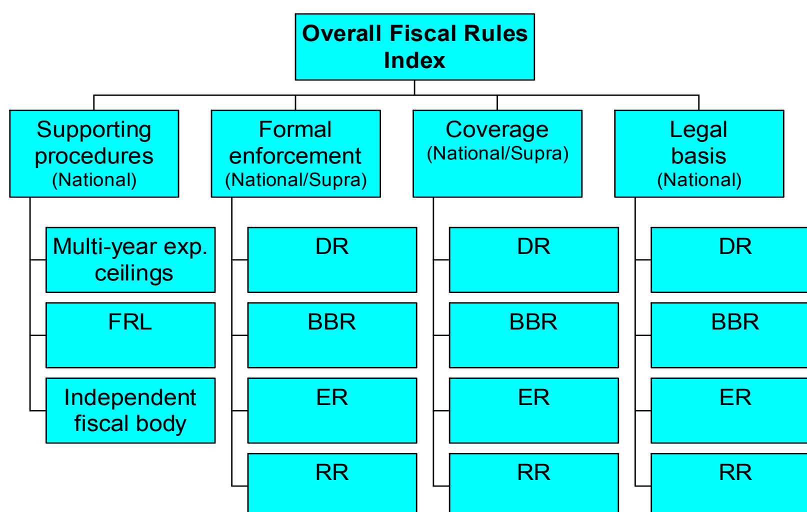
How the four sub-indices for each key characteristic of the rules are defined is shown in Figures 13.[21] Again, each sub-index is a simple sum of its indicator terms. As above, all sub-indices are standardized to vary between zero and five.

[20] We prefer summing up the main indicators terms rather than taking their average for two reasons: (i) C*eteris paribus*, several fiscal rules would be more binding than a single one. Indeed, countries tend to combine several rules to exploit their respective benefits. (ii) The different characteristics of the rules are deeply complementary for their effectiveness. To raise the likelihood of being effective, rules should have a broad coverage of government sectors but concurrently a strong legal basis and be fully monitored and enforced. The European Commission computes an index of fiscal rules' strength that combines different rules and complementary characteristics such as the statutory base, media visibility of the rule, existence of an independent monitoring and a pre-defined enforcement mechanism, and the nature of the institution responsible for the enforcement. Annual questionnaire responses from the EU member states are the information source.

[21] A sub-index of flexibility is also defined but not included in the overall index.

Sub-indices for each type of rule or each key characteristic of the rules are combined to generate the overall fiscal rules index. The above defined sub-indices are summed up to create the overall index, which is also standardized to range from zero to five. Combining the different types of rules or the different characteristics yields almost identical results. Unless otherwise notified, the second method is reported through-out the paper. In both methods, the overall index not only captures rules' characteristics abut also the number of numerical rules in place. For a discussion and robustness test on alternative weighting schemes for combing the indicators see Chapter VI.D.

Figure 13. Fiscal Rules Sub-indices by Key Characteristics



Source: IMF staff.

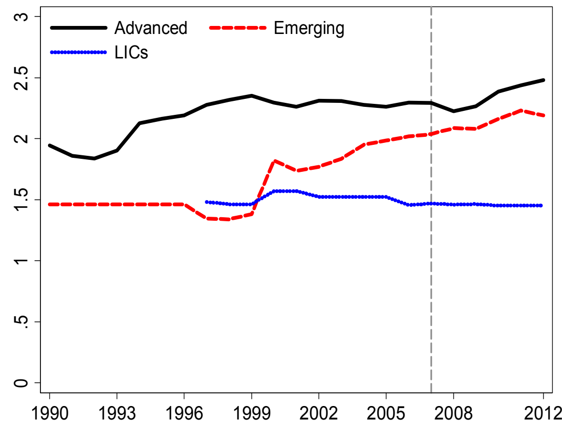
C. Key Findings

Overall fiscal rules index

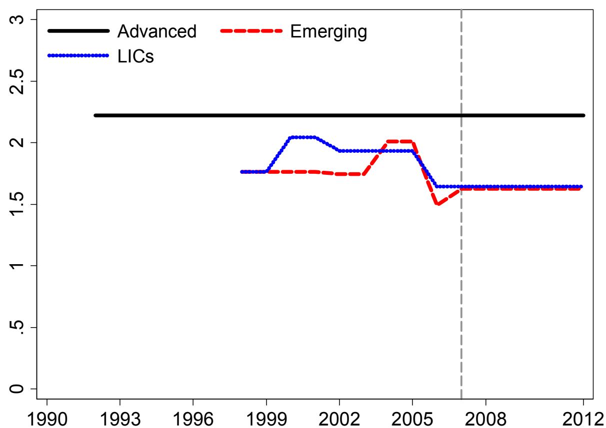
The design features of fiscal rules have become more encompassing during the last two decades, particularly in emerging economies. For emerging economies this trend started around 2000 and continued through the crisis. As a result, by end-March 2012 the overall fiscal rules index for national rules puts them slightly ahead of advanced economies. When accounting also for supranational rules, the gap to advanced economies has narrowed but not yet fully closed (Figure 14a and 14c). This development mirrors the adoption of multiple national rules with a wide government coverage and often supported by important institutional features, such as a formal enforcement procedure, fiscal responsibility law, or independent fiscal council. Fiscal rules in many advanced economies were also adjusted to include these features, especially in response to the crisis. For low-income countries, the indices have remained relatively stable over the past decade with changes in the supranational index reflecting changes to rules in the ECCU and CEMAC.

Figure 14. Overall Fiscal Rules Index
(Index ranging from zero to five)

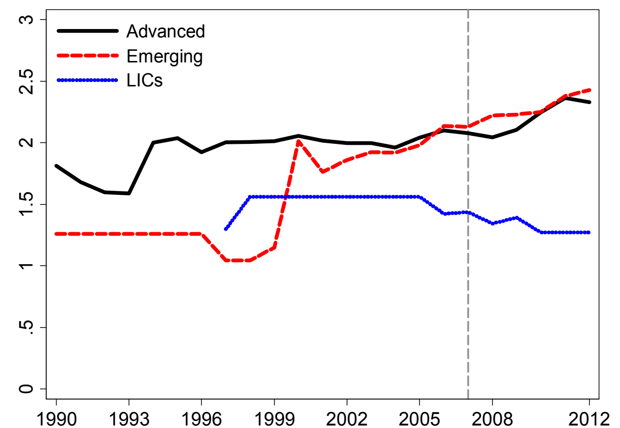
(a) National and Supranational



(b) Supranational



(c) National



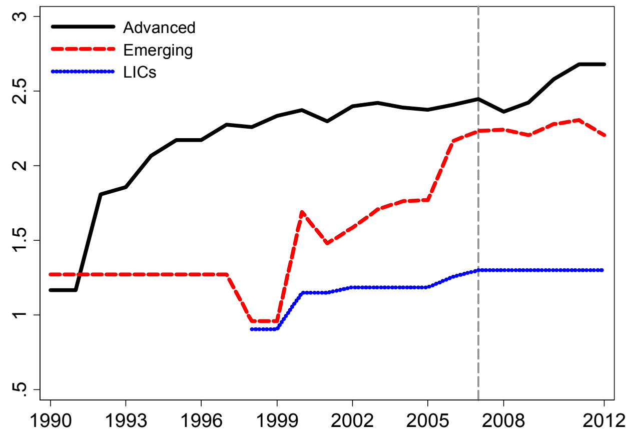
Source: IMF staff calculations.

Fiscal rules sub-indices by types of rules

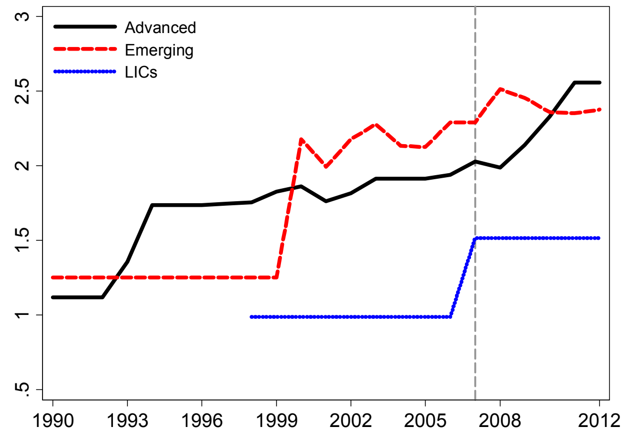
Analyzing sub-indices by types of rules highlights trends, particularly in national fiscal rules (Figure 15). Over the last decade, the design features of budget balance rule, debt rules, expenditure rules, and revenue rules have become more comprehensive, particularly at the national level in advanced and emerging economies. There is also a convergence of design features between advanced and emerging economies, confirming the analysis with the overall index.

Figure 15. Selected Fiscal Rules Sub-indices by Type of Rule
(Index ranging from zero to five)

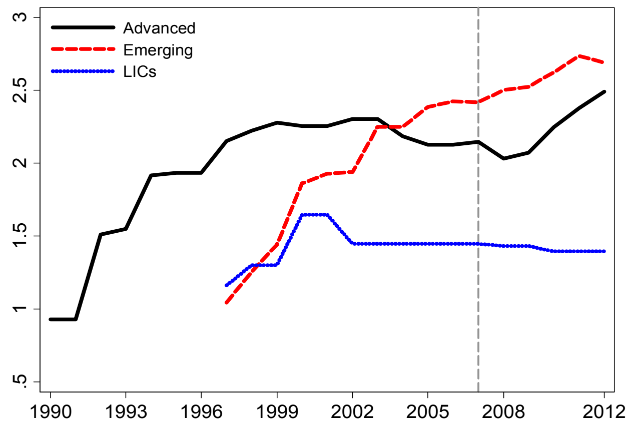
(a) Budget Balance Rule (National and Supranational)



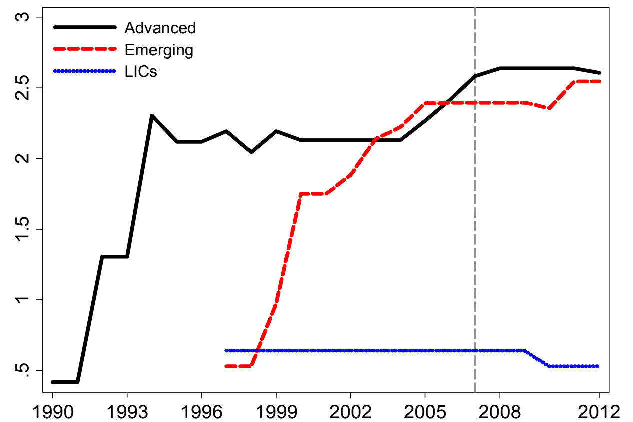
(b) Budget Balance Rule (National)



(c) Debt Rule (National and Supranational)



(d) Debt Rule (National)

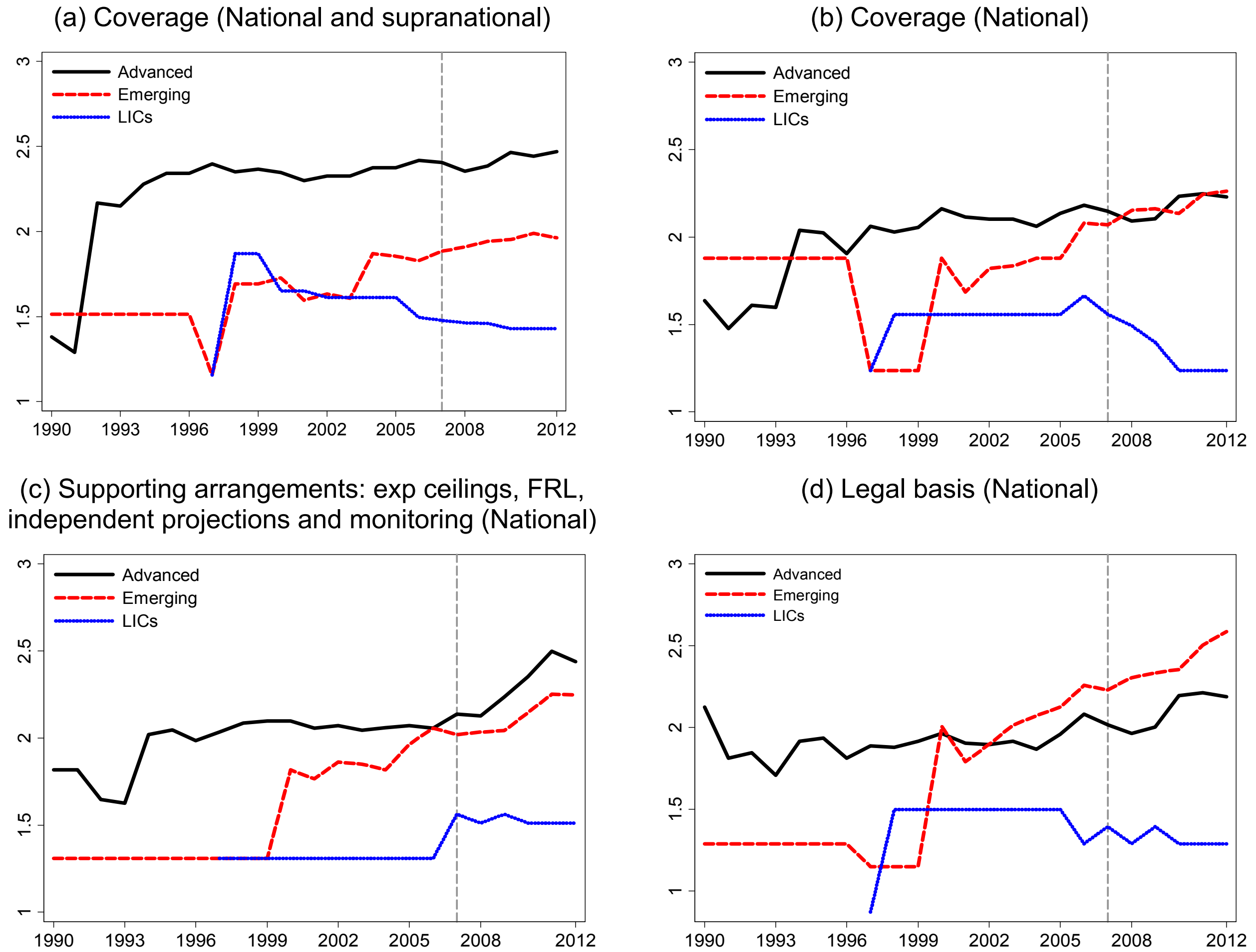


Source: IMF staff assessment and calculations.

Fiscal rules sub-indices by key characteristics

Analyzing key characteristics of fiscal rules gives a similar picture (Figure 16). The coverage of fiscal rules has broadened, particularly for emerging economies during the last decade. Supporting procedures such as the monitoring of budget implementation by an independent body have become more widespread in advanced and emerging economies, particularly after the onset of the recent global crisis. Other characteristics such as a strong legal basis or a formal enforcement procedure have also been more common across country groups.

Figure 16. Selected Fiscal Rules Sub-indices by Key Characteristics
(Index ranging from zero to five)



Source: IMF staff assessment and calculations.

D. Robustness Checks: Alternative Weighting and Aggregation

The overall fiscal rule index is robust to alternative weighting scheme, including random weights. Deriving fiscal rules indices as above assumes that the different characteristics of the rules are equally important. However, this may not be the case and rather depend on country-specific circumstances. The legal basis of a rule may not be as important as its coverage or its flexibility. Given the absence of a strong theoretical base to assign different weights across the characteristics, we test the robustness of the indices to different weighting assumptions using the random weights technique (see also Sutherland and others, 2005 and European Commission, 2006). Introducing such uncertainty on the weights does not lead to sizeable changes of the indices (see Appendix 3 for more details on the random weight).

Whilst having multiple fiscal rules may be more binding than a single rule, it may come at a cost of diminishing marginal gain of an additional rule. We define a second set of indices taking into account the possible decreasing marginal gain of additional fiscal rules. These indices are the weighted sums of the different types of fiscal rules in place. To define the weights, the following hierarchy of fiscal rules is assumed beginning with the one most directly linked to the debt sustainability objectives: the debt rule; budget balance rule; expenditure rule; and the revenue rule. A weight of one is assigned to the most binding rule, a weight of ½ to the second most binding rule, a weight of ¼ to the third most binding rule, and a weight of ⅛ to the less binding rule.[22]

Table 9. Spearman's Rank Correlation Coefficients for Various Aggregate Indices
(Simple correlation coefficients in parentheses)

	Standard. sum	Standard. sum (decreasing marginal gain)	Principal component analysis (PCA)	PCA (decreasing marginal gain)	Index incl. flexibility	Index based on different rules aggregation	Lower weight to supranational rules
Standard. sum	1 (1)						
Standard. sum (decreasing marginal gain)	0.96* (0.97*)	1 (1)					
Principal component analysis (PCA)	0.97* (0.97*)	0.98* (0.99*)	1 (1)				
PCA (decreasing marginal gain)	0.91* (0.92*)	0.95* (0.95*)	0.94* (0.93*)	1 (1)			
Index incl. flexibility	0.97* (0.97*)	0.94* (0.94*)	0.94* (0.95*)	0.89* (0.90*)	1 (1)		
Index based on different rules aggregation	0.97* (0.91*)	0.93* (0.85*)	0.92* (0.92*)	0.85* (0.82*)	0.96* (0.93*)	1 (1)	
Lower weight to supranational rules	0.91* (0.91*)	0.91* (0.94*)	0.89* (0.92*)	0.93* (0.92*)	0.89* (0.86*)	0.89* (0.76*)	1 (1)

Source: IMF staff calculations.
*Significant at 1 percent.

Indices obtained through various aggregation methods and assumptions are highly correlated (Table 9). In addition to summing up standardized variables, we also generated the overall fiscal rules index with a principal component analysis (PCA), capturing at least 80 percent of the original data variance. Spearman's rank correlation coefficients as well as simple correlation coefficients indicate that the baseline fiscal rules overall index

[22] Only three weights (1, ½, and ¼) or two weights (1 and ½) are assigned for countries with three or two rules respectively. The European Commission applies a similar weighting scheme by assigning a weight of one to the rule with the higher fiscal rules index score and a weight of ½ to the other lower-score rule. The variable capturing the number of fiscal rules in place is excluded for this robustness check.

(standardized sum) and the indices obtained through alternative methods such as the approach assuming decreasing return from additional fiscal rules, the PCA, and the PCA assuming decreasing return from additional fiscal rules are highly correlated. As indicated in Chapter VI.B, we also define an index that includes rules' flexibility features for the robustness check, which is highly correlated with the baseline fiscal rules index. Lastly, Table 9 illustrates that combining different types of rule (Figure 12) or different characteristics (Figure 13) to define the overall index, or hypothetically reducing by three quarters the weight of supranational rules in estimating the overall index yield similar indices.

E. Fiscal Rules and Fiscal Performance: Avenues for Future Work

The fiscal rules indices developed in this paper provide opportunities for future empirical work, including to assessing their effectiveness. Previous empirical studies suggest that national fiscal rules have been generally associated with improved fiscal performance. The most comprehensive analyses have focused on national fiscal rules in EU member states (Debrun and others, 2008; European Commission, 2006; Deroose, Moulin, and Wierts, 2006; Debrun and Kumar, 2007). However, these empirical studies also highlight the need to interpret the results with caution because of potential omitted variable bias and reverse causality. Iara and Wolff (2011) assess the impact that rules have on spreads for euro area members. The dataset provided here provides a basis to expand this type of empirical work, including analyzing the effectiveness of fiscal rules, as it accounts for the most recent developments during the crisis, includes the entire Fund membership in terms of coverage, and explicitly distinguishes between national and supranational rules.

A first, and preliminary, look at the data suggests that fiscal rules with more encompassing design features are associated with better fiscal performance. Appendix 3 provides some scatter plots with simple correlations between the overall fiscal rules index and changes in public debt, the key fiscal indicator for debt sustainability. The data broadly suggest a significantly negative correlation for national fiscal rules, in line with the literature.

VII. Conclusions

The use of fiscal rules has become more wide-spread, including to anchoring the fiscal exit from the crisis. Three "waves" can be observed. The first surge occurred in the early and mid-1990s in part responding to bank and debt crises as well as consolidation needs to qualify for the euro area. The second wave was driven largely by emerging economies in the early 2000s when many adopted more than one rule and reformed fiscal frameworks in responses to experience with fiscal excesses. The third wave is a response to the recent crisis. A number of countries, especially in the euro area are complementing the supranational rules with national ones while other economies are "upgrading" their fiscal frameworks and rules. Most countries now have several rules in place, often combining the objectives of

sustainability with the need for flexibility to account for economic shocks (via budget balance rules that correct for the cycle).

The "next-generation" fiscal rules tend to be more complex, creating new challenges. While the use of budget balance rules that adjust for the economic cycle explicitly considers the stabilization objective of fiscal policy, they also bring greater challenges in terms of design—in particular estimating the output gap—and communication. Communication policies seem so far slow to respond, but a number of countries has started to put greater emphasis on the use of independent fiscal councils as monitoring and assessment devices to fill this gap.

While design features of fiscal rules continue to differ across countries, convergence has started in some areas. Most fiscal rules have at a minimum a statutory basis but anchoring national fiscal rules in the constitution (or other durable legislation) is part of the commitments under the EU "Fiscal Compact." Until recently few fiscal rules included well-specified escape clauses, but countries adopting or changing rules in the recent years have defined clearer trigger points. Automatic correction mechanisms and sanctions are not yet wide-spread, but the former is another required feature of fiscal rules to be adopted under the "Fiscal Compact."

Consequently, the design features and supporting arrangements of fiscal rules have become more encompassing in particular in response to the crisis. Using an index that summarizes the number of fiscal rules and their key elements, the paper finds that countries in the top quartile have at least two numerical rules in place and share many supporting features, such as a monitoring mechanism of compliance outside the government and coverage of the general government. This applies to advanced and emerging economies.

References

Baunsgaard, T., M. Villafuerte, M. Poplawski-Rebeiro, C. Richmond (2012), "Fiscal Frameworks for Resource Rich Developing Countries," IMF Staff Discussion Note SDN/12/04, (Washington: International Monetary Fund).

Bodmer, F. (2006), "The Swiss Debt Brake: How it Works and What Can Go Wrong," Schweizerische Zeitschrift für Volkswirtschaft und Statistik, Vol. 142 (3) pp. 307–330.

Bornhorst, F., N. Budina, G. Callegari, A. El Ganainy, R. Gomez Sirera, A. Lemgruber, A. Schaechter, and J. Beom Shin, 2010, "A Status Update on Exit Strategies," IMF Working Paper 10/272 (Washington: International Monetary Fund).

Calmfors, L. (2012), " The Swedish Fiscal Policy Council: Watchdog with a Broad Remit," January 31, 2012, CESifo Working Paper Series No. 3725.

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws," in: Ter-Minassian, T. and M. S. Kumar (eds.), Promoting Fiscal Discipline, pp. 58–77 (Washington, DC: International Monetary Fund).

Debrun, X. and M. S. Kumar (2007), "Fiscal Rules, Fiscal Councils and All That: Commitment Devices, Signaling Tools or Smokescreens?" in: Banca d'Italia (eds.) *Fiscal Policy: Current Issues and Challenges*, Papers presented at the Banca d'Italia workshop held in Perugia, 29–31 March 2007, pp. 479–512.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M. S. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union," *Economic Policy*, April 2008, pp. 299–362.

Debrun, X., Gérard, M., and Harris, J., 2011, "Fiscal Policies in Crisis Mode: Has the Time for Fiscal Councils Come at Last?" paper presented at the DG ECFIN Workshop on Fiscal Policies during the Crisis (Brussels, November 30, 2011).

Deroose, S., Moulin, L. and Wierts, P. (2006), "National Expenditure Rules and Expenditure Outcomes: Empirical Evidence for EU Member States," Wirtschaftspolitische Blaetter, 1/2006, pp. 27–42.

van Eden, H., D. Emery, and P. Khemani (2012), "Developing Legal Frameworks to Promote Fiscal Responsibility—Design Matters," (forthcoming).

European Commission, *Fiscal Rules Database,* (Brussels).

European Commission (2006), Public Finance Report in EMU—2006. Part III: National Numerical Fiscal Rules and Institutions for Sound Public Finances, European Economy No. 3/2006, (Brussels: European Commission).

German Federal Ministry of Finance (2011), "Compendium on the Federation's Budget Rule as set out in Article 115 of the Basic Law," http://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Oeffentliche_Finanzen/Schuldenbremse/2012-06-14-kompendium-en.html

Iara, A., and G.B. Wolff, 2011, "Rules and Risk in the Euro Area: Does Rules-Based National Fiscal Governance Contain Sovereign Bond Spreads?" European Economy Economic Papers 433, December (Brussels: European Commission).

International Monetary Fund (2011), *Fiscal Monitor. Addressing Fiscal Challenges to Reduce Economic Risks*, September (Washington, DC).

Kopits, G. (2004), "Overview of Fiscal Policy Rules in Emerging Markets," in: Kopits, G. (ed.) Rules-Based Fiscal Policy in Emerging Markets. Background, Analysis, and Prospects, pp. 1–11 (Palgrave).

Kopits, G. and S. Symansky (1998), *Fiscal Rules*, IMF Occasional Paper 162.

Kumar, M., E. Baldacci, A. Schaechter, A., C. Caceres, D. Kim, X. Debrun, J. Escolano, J. Jonas, P. Karam, I. Yakadina, and R. Zymek (2009), *Fiscal Rules—Anchoring Expectations for Sustainable Public Finances*, IMF staff paper, http://www.imf.org/external/np/pp/eng/2009/121609.pdf (Washington, DC: International Monetary Fund).

Lienert, I. (2010), "Should Advanced Countries Adopt a Fiscal Responsibility Law?," IMF Working Paper 10/254 (Washington: International Monetary Fund).

Ljungman, G. (2008), "Expenditure Ceilings—A Survey," IMF Working Paper 08/282 (Washington: International Monetary Fund).

Rogoff, K. (1990), "Equilibrium Political Budget Cycles," *NBER Working Paper 2428.*

Ruggiero, E. (2012), "Togo: A Framework for Growth-Supporting Fiscal Rules," forthcoming (Washington, DC: International Monetary Fund).

Sommer, M. (2011), "Budget Institutions for Federal Fiscal Consolidation", United States Article IV Consultations, IMF Country Report No. 11/202, pp. 68-76 (Washington, DC: International Monetary Fund).

Sutherland, D., R. Price, and I. Joumard (2005), "Fiscal Rules for Sub-Central Governments: Design and Impact," OECD Working Paper (COM/CTPA/ECO/GOV/WP(2006)/1 (Paris: Organization for Economic Co-Operation and Development).

Tornell, A. and P.R. Lane (1999). "The Voracity Effect" The American Economic Review , Vol. 89, No. 1, pp. 22-46.

Appendix 1. Escape Clauses: Country Examples

Country	Description of Escape Clauses
Brazil (since 2000)	Real GDP growth below 1 percent over four quarters, and natural disaster but can only be invoked with Congressional approval.
Colombia (since 2011)	In case of extraordinary events threatening the macroeconomic stability of the country, enforcement of the fiscal rule may be temporarily suspended, subject to the favorable opinion of CONFIS (an internal fiscal council headed by the Finance Minister).
Germany (since 2010)	Natural disasters or unusual emergency situation which are outside government control and have major impact on the financial position of the government. Absolute majority of parliament is needed to trigger the escape clause. Parliament must approve an amortization plan with a specified timeframe for reducing the accumulated deviation. Until 2010, escape clause in case of a "distortion of the macroeconomic equilibrium."
Jamaica (since 2010)	The targets may be exceeded on the grounds of national security, national emergency, or such other exceptional grounds, as the Minister may specify in an order subject to affirmative resolution.
Mauritius (since 2008)	Temporary deviations in case of emergencies and large public investment projects.
Mexico (since 2006)	If non-oil revenues are below their potential due to a negative output gap, there can be a deficit equivalent to the shortfall.
Panama (since 2008)	If real GDP grows by less than 1 percent, the non-financial public sector deficit ceiling can be relaxed to 3 percent of GDP in the first year, followed by a gradual transition to the original ceiling (1 percent of GDP) within 3 years.
Peru (since 2000)	If real GDP declines or in case of other emergencies, declared by the Congress at the request of the Executive, the deficit ceiling can be relaxed up to 2.5 percent of GDP. The Executive must specify deficit and expenditure ceilings to be applied during the exception period. In both cases a minimum adjustment of 0.5 percent of GDP is required until the 1 percent deficit ceiling is reached.
Romania (since 2010)	In case of a government change, the new government will announce whether its program is consistent with the Medium-Term Budgetary Framework (MTBF) and if not the Ministry of Finance will prepare a revised MTBF, to be approved by parliament and subject to the review and opinion of the Fiscal Council.
Slovakia (since 2012)	Escape clauses for a major recession, banking system bailout, natural disaster, and international guarantee schemes.
Spain (since 2002)	In case of natural disasters, exceptional slowdown, exceptional budget deficits are accompanied by a medium-term financial plan to correct this situation within the next 3 years (to be approved by a majority vote by the parliament).
Switzerland (since 2003)	The government can approve by supermajority a budget deviating from the budget balance rule in "exceptional circumstances," which are defined in Budget Law as natural disaster, severe recession, and changes in accounting methods.
EU member states/ euro area (since 2005)	An excessive deficit procedure may not be opened when the 3 percent deficit limit is exceeded only temporarily and exceptionally, and the deficit is close to the deficit limit (both conditions need to apply). Deadlines for excessive deficit correction can be extended in case of adverse economic developments.
WAEMU (since 2000)	Temporary and pronounced shortfall of real GDP (at least 3 percentage points below the average of the previous 3 years) and budget revenue (at least 10 percentage points below the average of the previous 3 years average).

Source: National authorities; and IMF staff assessment.

Appendix 2. New Fiscal Rules Adopted since 2010

Country	Description of Rules
Austria	Parliament passed on December 7, 2011, an amendment to the federal budget law stipulating that, from 2017 onward, the structural deficit at the federal level (including social insurance) shall not exceed 0.35 percent of GDP. The amendment is conceptually similar to the German debt brake rule but has so far not been able to be anchored in the constitution. Operational details are still being prepared in separate laws and regulations.
Colombia	A structural budget balance rule for the central government was approved by Congress in June 2011. It sets a path that lowers the structural deficit to 2.3 percent of GDP by 2014 and provides a ceiling of 1 percent of GDP effective in 2022. The rule allows for fiscal expansion when the expected output growth rate is at least 2 percentage points lower than the long-term rate and creates a sovereign wealth fund.
Ecuador	A new expenditure rule was adopted in 2010 and took effect in 2011, but the existing budget balance and debt rules were dropped. The expenditure rule states that current expenditure cannot be higher than permanent income including oil revenue. External financing and oil revenues are to be used only to finance public investment.
Italy	A constitutional amendment was approved in April 2012 that introduces the principle of a balanced budget in structural terms with details and implementation principles to be specified in secondary legislation by end-February 2013.
Hungary	A debt rule, included in the Constitution, will come into effect in 2016 and require cutting the government debt-to-GDP ratio annually until it falls to below 50 precent of GDP. Debt reduction can be suspended when real GDP contracts.
Japan	The Fiscal Management Strategy, which includes a pay-as-you-go rule, was adopted in 2010 (by cabinet decision). The rule implies that any measure that involves increases in expenditure or decreases in revenue needs to be compensated for by permanent reductions in expenditures or permanent revenue-raising measures. A Medium-Term Fiscal Framework, including a limit on expenditure, was also introduced. 1/
Namibia	An expenditure rule took effect in 2010 that caps the ratio of expenditures to GDP at 30 percent.
Poland	A new expenditure rule (from 2011) limits the increase in central government discretionary spending and all newly enacted spending to 1 percent in real terms (based on consumer price index inflation) (defined in 2011 budget law).
Portugal	The new budgetary framework law (May 2011) approved a fiscal rule establishing that the general government structural balance cannot be less than the medium-term objective in the Stability and Growth Pact. It also includes requirements for a correction of the multiannual plan whenever deviations from the target occurs. The rule will come into effect in 2015.
Romania	From 2010 general government expenditure growth should not exceed projected nominal GDP for three years until the budget balance is in surplus. Moreover, personnel expenditure limits are binding for two years.
Serbia	In October 2010, fiscal responsibility provisions were introduced in the budget system law from 2009. These include numerical fiscal rules and the adoption of a fiscal council. The fiscal rules comprise a budget balance rule that corrects for past deficit deviations and allows a partial operation of automatic fiscal stabilizers. A debt rule provides a ceiling on general government debt of 45 percent of GDP.
Slovak Republic	In December 2011, a constitutional bill was adopted, taking effect March 1, 2012, which caps public debt at 60 percent of GDP. Automatic adjustment mechanisms take effect when the debt-to-GDP ratio reaches 50 percent. The bill also calls for setting up a Fiscal Council to monitor and evaluate fiscal performance.
Spain	A constitutional amendment (2011) and its corresponding organic legislation (2012) require that the structural deficit for all levels of government stay within the limits set by the European Union, and set debt limits for each level of government. The rules will enter into force from 2020, with transition rules in effect until then. The amendment also introduces expenditure ceilings and constrains growth in expenditure for all levels of government.
United Kingdom	The new cyclically adjusted budget balance rule, from 2010, aims to achieve cyclically adjusted current balance by the end of the rolling five-year forecast period (currently by FY2016/17). The new debt rule (from 2010) targets a falling public sector net-debt-to-GDP ratio by FY2015/16.
United States	Statutory pay-as-you-go rules for revenue and mandatory spending were reinstated in February 2010 but are subject to important exemptions. In August 2011, Congress enacted discretionary spending caps, saving about $900 billion over the next decade. Additional automatic spending cuts (sequesters) are scheduled to take effect from January 2013 to produce savings of US$1.2 trillion over a decade, with one-half coming from defense spending and the other half from domestic programs, excluding Social Security, Medicaid, parts of Medicare, and certain other entitlement programs. 1/

Source: National authorities; and IMF staff assessment.

1/ The pay-as-you go rules are not codified (counted) in the dataset of this report as they are considered to be procedural rather than numerical rules.

Appendix 3. Country Coverage

List of countries which had national and/or supranational fiscal rules in effect during 1985 to end-March 2012 (or with clearly specified transition regimes)

Advanced Economies	Emerging Economies	Low-income Countries
Australia	Antigua and Barbuda[1/]	Armenia
Austria	Argentina[2/]	Benin[1/]
Belgium[1/]	Botswana	Burkina Faso[1/]
Canada[2/]	Brazil	Cameroon[1/]
Cyprus[1/]	Bulgaria	Cape Verde
Czech Republic	Chile	Central African Republic[1/]
Denmark	Colombia	Chad[1/]
Estonia	Costa Rica	Congo[1/]
Finland	Ecuador	Cote d'Ivoire[1/]
France	Equatorial Guinea[1/]	Dominica[1/]
Germany	Hungary	Gabon[1/]
Greece[1/]	India[2/]	Grenada[1/]
Hong Kong SAR	Indonesia	Guinea Bissau[1/]
Iceland[2/]	Jamaica	Kenya
Ireland[1/]	Latvia[1/]	Kosovo
Israel	Lithuania	Mali[1/]
Italy[1/]	Malta[1/]	Niger[1/]
Japan	Mauritius	Nigeria
Luxembourg	Mexico	Senegal[1/]
Netherlands	Namibia	Togo[1/]
New Zealand	Pakistan	
Norway	Panama	
Portugal[1/]	Peru	
Russia[2/]	Poland	
Slovak Republic[1/]	Romania	
Slovenia[1/]	Serbia	
Spain	Sri Lanka	
Sweden	St. Kitts and Nevis[1/]	
Switzerland	St. Lucia[1/]	
United Kingdom	St. Vincent and the Grenadines[1/]	
United States		

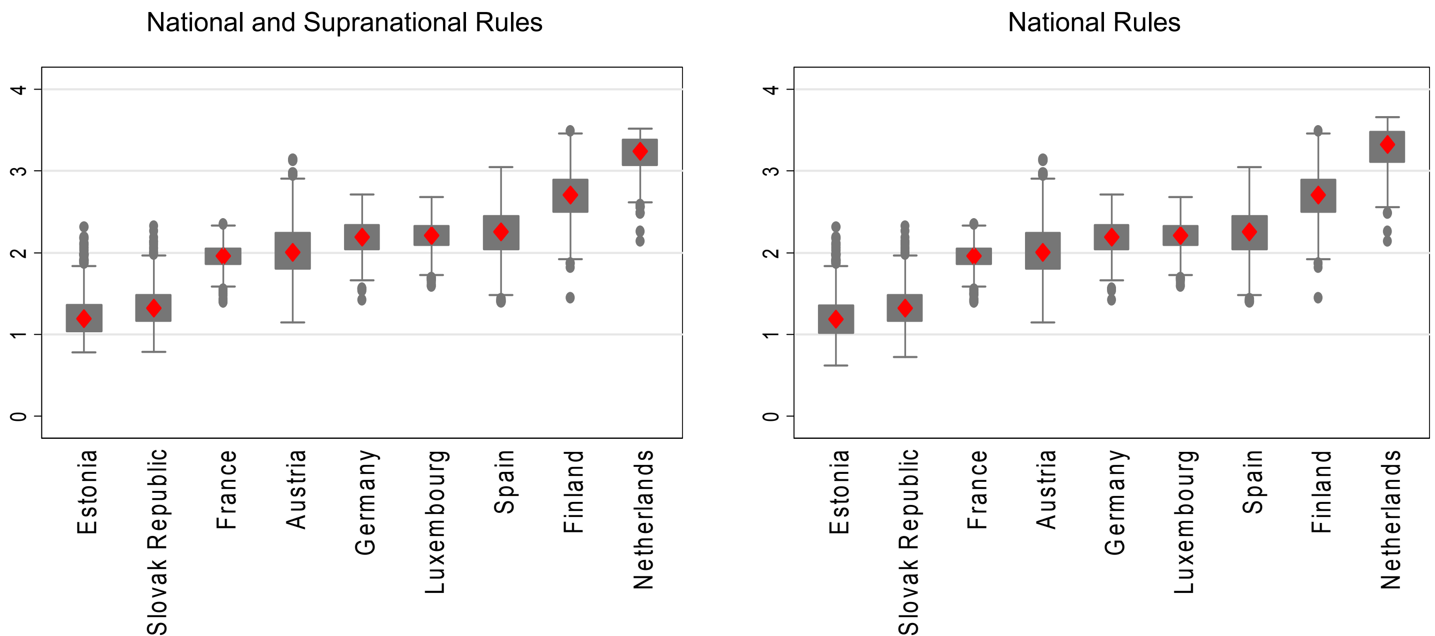
[1/] Countries with only supranational rules in effect by end-March 2012.
[2/] Countries that had rules in effect at some point during 1985 and end-March 2012 but no longer at end-March 2012.

Appendix 4. Fiscal Rules Index Using Random Weights

The random weights technique is used as a robustness check. Similar to Sutherland, Price, and Joumard (2005) and European Commission (2006) we introduce uncertainty on the weights used to construct the indices. The random weights technique uses 1,000 sets of randomly-generated weights to generate 1,000 fiscal rule overall indices. The random weights are drawn from uniformly distributed random observations between zero and one and are normalized to sum to the total number of indicators in each index. The property of the assumed uniform distribution implies that the mean value of each synthetic indicator is asymptotically equivalent the indicator assuming equal weights across the components as in the previous paragraph (un-weighted sum).

The overall fiscal rules index, which combines different characteristics of the rules, is robust to alternative weighting schemes. Based on 1,000 randomly-generated weights, Appendix Figure 1 illustrates the distribution of 90 percent of the 1,000 generated fiscal rules indices for a selected sample of euro area countries. Altering the weighting of the sub-components does not lead to sizeable changes of the fiscal rules index. [23]

Appendix Figure 1. Distribution of the Overall Fiscal Rules Index, 2012



Source: IMF staff calculations.
The higher limit of each box represents the upper quartile; the lower limit the lower quartile; and the diamond the median of the generated indices. The dots correspond to outliers. The lines stretching above and below each box represents the maximum and minimum, excluding the outliers. These lines go as far as 1.5 times the inter quartile range (the distance between the upper and lower quartile).

[23] The results are similar for other countries and for different type of fiscal rules.

Appendix 5. Fiscal Rules and Fiscal Performance: Some Preliminary Statistical Evidence

Several econometric studies find that fiscal rules are associated with stronger fiscal performance. This includes work mostly on EU countries (Debrun and others, 2008; European Commission, 2006; Deroose, Moulin, and Wierts, 2006; Debrun and Kumar, 2007) and a few studies for emerging economies (Kopits, 2004; Corbacho and Schwartz, 2007). The mains findings are: (i) Tighter and more encompassing fiscal rules are correlated with stronger cyclically adjusted primary balances in EU countries.[24] (ii) Budget balance and debt rules have contributed to better budgetary outcomes than expenditure and revenue rules. (iii) Rules covering wider levels of government have been associated with more fiscal discipline. Some features of the rules such as a strong legal basis and strict enforcement appear to have a beneficial impact on fiscal performance.

The above empirical results need to be interpreted with some caution, however. The positive correlation between fiscal rules and fiscal performance could reflect the effect of omitted variables. A potential omitted variable is the political commitment to fiscal discipline, which would lead to both the adoption of rules and better fiscal performance. Standard estimations would therefore lead to statistical bias by attributing the improvement in fiscal performance to the introduction of rules (Kumar and others, 2009). Reverse causality could also bias the results as fiscal rules could be adopted to "lock in" gains from consolidation. International experience has also shown that fiscal rules cannot substitute a strong commitment to fiscal discipline as these rules can be circumvented, ignored, or simply abandoned overtime.

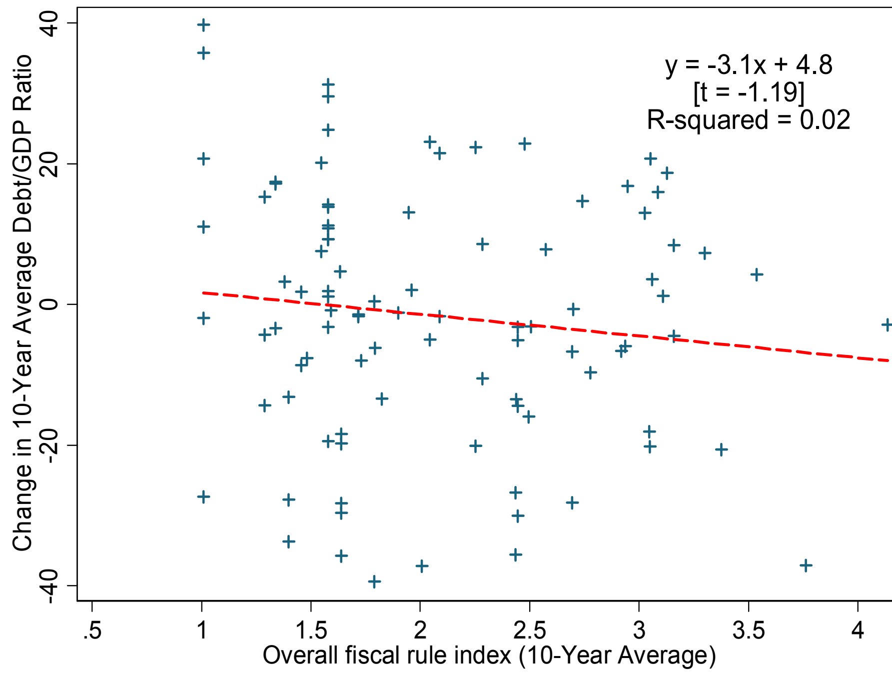
With these empirical caveats in mind, the figures below depict some correlations between our various fiscal rules indices and the change in public debt. The objective is not to establish causal relationships between the two but rather to present simple correlations, indicating whether fiscal rules with more encompassing design features are associated with better fiscal performance, in line with the literature.

National fiscal rules with more comprehensive design features are associated with lower debt accumulation. The correlation is however not significant when both national and supranational are considered. This could reflect the limited changes in supranational rules during the last decade and suggests a higher role of national rules.

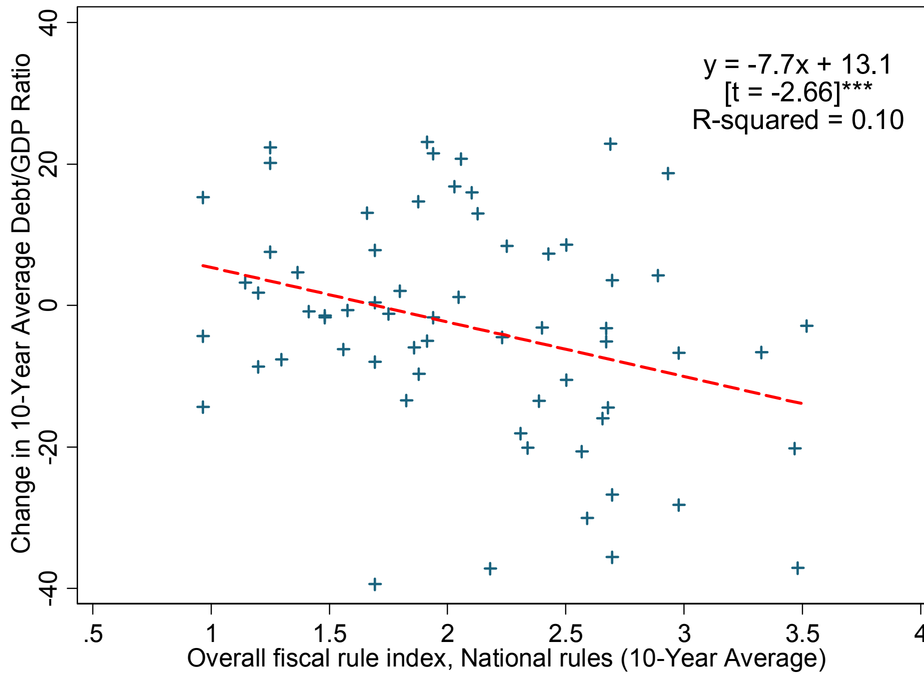
[24] This relationship tends to weaken when fiscal performance is captured by public debt-to-GDP ratio.

Appendix Figure 2. Fiscal Rules and Change in Debt-to-GDP Ratio 1/

National and Supranational Fiscal Rules Index



National Fiscal Rules Index



Source: IMF staff calculations.
1/ Data from 1985-2011 for 79 countries.

Appendix 6. Fiscal Responsibility Laws in Selected Countries: Main Features

Country and Date	Original Law	Procedural Rules	Numerical Targets in FRL 1/	Coverage 2/	Escape Clauses 3/	Sanctions
Argentina: Federal Regime of Fiscal Responsibility (2004) 4/	1999, 2001	Yes	ER; DR	CG	No	Yes
Australia: Charter of Budget Honesty (1998)		Yes	-- 6/	CG	No	No
Brazil: Fiscal Responsibility Law (2000)		Yes	ER; DR	PS	Yes	Yes
Chile: FRL (2006)		Yes	BBR	CG	No	No
Colombia: Original Law on Fiscal Transparency and Responsibility (2003)	1997, 2000	Yes	BBR	NFPS	Yes	No
Ecuador: Fiscal Responsibility Law (2010)	2002, 2005	Yes	ER	PS	No	No
India: Fiscal Responsibility and Budget Management Act (2003)		Yes	BBR	CG	No	No
Jamaica: Fiscal Responsibility Law (2010)	2010	Yes	BBR; DR	CG 5/	Yes	No
Mexico (2006)		Yes	BBR	CG	Yes	Yes
Nigeria (2007)			BBR	CG	No	No
New Zealand: Public Finance (State Sector Management) Bill (2005)	1994	Yes	-- 6/	GG	No	No
Pakistan: Fiscal Responsibility and Debt Limitation Act (2005)		Yes	BBR; DR	CG	Yes	No
Panama: New Fiscal Responsibility Law (2009)	Law No. 2 on Economic Activity Promotion and Fiscal Responsibility (2002)	Yes	BBR; DR	NFPS	Yes	No
Peru: Fiscal Responsibility and Transparency Law (2003)	1999	Yes	BBR; ER	NFPS	Yes	Yes
Romania (2010)		Yes	ER	GG	Yes	Yes
Serbia (2010) FRL provisions introduced in the 2009 Budget System Law		Yes	BBR; DR	GG	No	No
Spain: Budget Stability Law (2007)	2001	Yes	BBR	NFPS	Yes	Yes
Sri Lanka: Fiscal Management Responsibility Act (2003)		Yes	BBR; DR	CG	No	No
United Kingdom: Budget Responsibility and National Audit Act (2011)	Code for Fiscal Stability (1998)	Yes	BBR; DR	PS	No	No

Source: Corbacho and Schwartz (2007); national authorities; and IMF staff assessment.
1/ BBR = budget balance rules; DR = debt rule; ER = expenditure rule;
2/ GG = general government; CG = central government, PS=public sector; NFPS=Non-financial public sector.
3/ Includes only well-specified escape clauses. In India's FRL, for example, the escape clause is very general.
4/ The FRL has de facto been suspended since 2009.
5/ Also includes public bodies.
6/ These countries operate (de facto) rules, which are however not spelled out in the FRL.