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ALL'ORIGINALE DI COPIA (Artt. 19 e 47 D.P.R. 28 dicembre 2000, n. 445 e s.m.i.)**

Il sottoscritto Sandro Brunelli

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consapevole

- delle sanzioni penali, nel caso di dichiarazioni mendaci, di formazione o uso di atti falsi, richiamate dall'art. 76 del D.P.R. 28 dicembre 2000, n. 445;
- che si decade dai benefici eventualmente conseguenti al provvedimento emanato sulla base della dichiarazione non veritiera qualora dal controllo effettuato dall'Amministrazione emerga la non veridicità del contenuto della dichiarazione (artt. 71 e 75 del <sup>1</sup>~~SEP~~D.P.R. 28/12/2000, n. 445);

con riferimento alla pubblicazione:

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Lo studio nonostante frutto di riflessioni comuni, risultante anche da una scrittura congiunta di buona parte del lavoro, specificatamente per la sua stesura può essere così ripartito:

- Paragrafo 1 (*Astract*): Testarmata
- Paragrafo 2 (*Introduction*): Testarmata
- Paragrafo 3 (*Quality of Public Finance*): Giosi
- Paragrafo 4 (*The dimensions of fiscal governance*): Giosi
- Paragrafo 5 (*Methods*): Testarmata
- Paragrafo 6 (*An assessment of European Commission Indexes*): Brunelli
- Paragrafo 7 (*An overall index of fiscal governcance*): Brunelli
  - a. Case of Spain: Testarmata
  - b. Case of Hungary: Testarmata
  - c. Case of Ireland: Brunelli
  - d. Case of Italy: Giosi
- Paragrafo 8 (*Conclusions*): Testarmata

L'elaborazione statistica dei dati mediante l'utilizzo di apposite software è dovuta a B. Staglianò.

Il sottoscritto dichiara di essere informato, ai sensi e per gli effetti del Decreto Legislativo 196/2003, che i dati personali raccolti saranno trattati, anche con strumenti informatici, esclusivamente nell'ambito del procedimento per il quale la presente dichiarazione viene resa.

Letto, confermato e sottoscritto.  
Roma, 6/4/2018

Il dichiarante  
Sandro Brunelli

# The dimensions of fiscal governance as the cornerstone of public finance sustainability: A general framework

Author(s): Alessandro Giosi (Department of Business Government Philosophy, University of Rome)...Show all authors

Abstract: Recently many European countries have incurred crises in public finance despite the fact that EU institutions have pushed the national governments toward the sustainability of public finance with compulsory and voluntary rules regarding fiscal governance. This paper investigates the relations between the quality of fiscal governance and the financial virtuosity of national fiscal policy. We proposed a general framework for analyzing the fiscal governance issue and we empirically tested the correlation between the dimensions of fiscal governance and the budgetary performance of EU countries. The results showed a positive correlation between the quality of fiscal governance in the EU countries and financial surplus in the period concerned. However further investigations are needed and an effort should be made to collect uniform data on fiscal governance in the European Union.

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**THE DIMENSIONS OF FISCAL GOVERNANCE AS THE CORNERSTONE  
OF PUBLIC FINANCE SUSTAINABILITY:  
A GENERAL FRAMEWORK**

Alessandro Giosi, Silvia Testarmata,  
Sandro Brunelli and Bianca Staglianò\*

**ABSTRACT.** Recently many European countries have incurred crises in public finance despite the fact that EU institutions have pushed the national governments toward the sustainability of public finance with compulsory and voluntary rules regarding fiscal governance. This paper investigates the relations between the quality of fiscal governance and the financial virtuosity of national fiscal policy. We proposed a general framework for analyzing the fiscal governance issue and we empirically tested the correlation between the dimensions of fiscal governance and the budgetary performance of EU countries. The results showed a positive correlation between the quality of fiscal governance in the EU countries and financial surplus in the period concerned. However further investigations are needed and an effort should be made to collect uniform data on fiscal governance in the European Union.

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## INTRODUCTION

According to the European Commission (2008), *fiscal governance* is a cornerstone of the quality of public finance. Fiscal governance, or domestic fiscal frameworks, can be defined as those rules, regulations, and procedures that influence how budgetary policy is planned, approved, carried out, and monitored. Thereby, good fiscal governance may enhance the stability of sound budgetary positions and support structural reforms in the medium to long term.

Many empirical studies showed the relation between the dimensions of fiscal governance (including national numerical fiscal rules, independent fiscal institutions, medium-term budgetary frameworks, and budgeting procedures) and the financial virtuosity of national fiscal policy. Particularly, the European Commission thoroughly investigated the single dimensions composing fiscal governance through qualitative and quantitative research. However, in the academic literature there are few managerial studies investigating fiscal governance.

This paper proposes a general framework for analyzing fiscal governance. First, we provide an assessment of the academic literature on fiscal governance. Second, we propose an empirical analysis of fiscal governance in the European Union based on the datasets recently collected by the European Commission and the OECD. Then, we analyze the indexes defined by the European Commission for the measurement of the single dimensions of fiscal governance, highlighting their relations according to a managerial approach. Finally, we define a synthetic index of fiscal governance that can be used to evaluate the quality of the “national budgetary systems” in terms of public finance sustainability.

## THE QUALITY OF PUBLIC FINANCE

The concept of Quality of Public Finance (QPF) has steadily increased in importance. It focuses on the role that public finance and fiscal policy can play to sustain economic growth, employment, and competitiveness according to the European Union strategy (European Commission, 2010c). The tie between fiscal policy and macro-economic variables has led the QPF in the economic field and, as a consequence, the QPF has been linked to the Broad Economic Policies Guidelines (BEPGs) issued by Ecofin Council in support of the

macro-economic coordination process. So, until 2004 the QPF had taken a secondary role in the evaluation process of the Stability and Convergence Programmes (SCPs).

This appears to be a contradiction if we analyze the definition of QPF. In fact, QPF is known more as a long term public finance sustainability strategy than as a taxation system and policy of public expenditure that allows a country to stabilize the economy, respond promptly to economic shocks, and assure the correct functioning of the goods, service, and labor markets (Afonso, Erbert, Schuknect & Thone, 2005; Barrios & Schaechter, 2008). In this context “the allocation of resources and the efficient and effective use of those resources in relation to identified strategic priorities” (European Commission, 2004a, p. 7) appear as a fundamental issue. Therefore, the concept of QPF includes the public policy evaluation field and encompasses, on one hand, the relationship between public expenditure and economic growth and, on the other, the correlations between fiscal policy and public policy targets (European Commission, 2004b, pp. 186-201). Therefore, the observance of the European fiscal rules does not close the financial planning process. Indeed, the budget has, at least, three main functions (Atkinson & Van de Noord, 2001; Schick, 2002; Diamond, 2003):

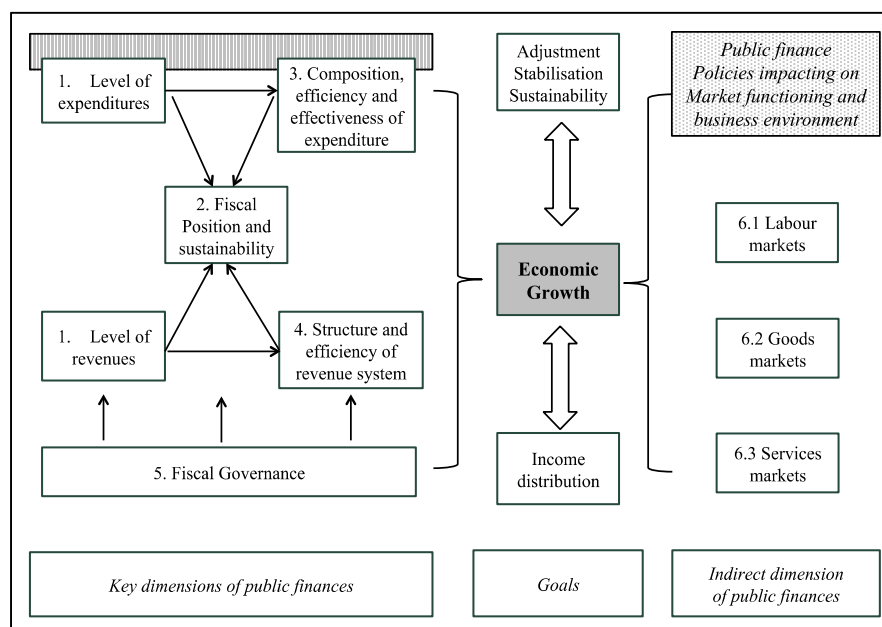
- ensure fiscal discipline and close-to-balance trend;
- allow the allocation of resources according to strategic priorities;
- ensure an efficient and effective use of public resources.

It is evident that a traditional input base budget does not appear to be in line with the needs of the QPF, which requires a shift toward program budget and output-outcome budget. These budgets enhance the accountability of the public policy targets and strengthen the tie between resource allocation and performance (Schick, 2007 and 2003; Dutta & Reichelstein, 2005; Scheers, Sterck & Bouckaert, 2005; Blondal, 2003a and 2003b).

As a consequence of the relationship between fiscal policy and public policy targets, the QPF has influenced the reform of the Stability and Growth Pact carried out in 2005 and the current reform under discussion. Indeed, political bodies have given high attention both to QPF and to its individual components, both in the preventive and corrective phases (e.g. European Council 2010a, 2005; Ecofin Council, 2010a, 2010c, 2005). Following the debate, the European

Commission published a model that could constitute the referential framework (Barrios & Schaechter, 2008) which is useful in the context of the multilateral surveillance procedures (European Commission, 2008, p. 132), both preventive (Stability and Convergence Programme – SCP) and corrective (Excessive Deficit Procedure – EDP). According to this model, the European Commission regards QPF as a complex and multi-dimensional concept that can replace the fragmented and mono-dimensional approach often used in literature (see Figure 1).

**FIGURE 1**  
**The Quality of Public Finance – A Multidimensional Framework**



Source: European Commission, 2008, p. 132.

If we simplify the European model, excluding the sixth dimension concerning the indirect effect that market functioning could have on the economic growth due to the fiscal policy, the five fundamental dimensions of the QPF would be as follows:

- the size of government in terms of public expenditure and fiscal pressure levels;
- the fiscal position and the long term sustainability of public finance;
- the composition, efficiency, and effectiveness of public expenditure;
- the efficiency of the tax (or revenue) system; and
- the fiscal governance.

We will demonstrate the dimensions of sustainability of public finance, efficiency of the tax system, size of government, and composition, efficiency and effectiveness of public expenditures, focusing particularly on fiscal governance insofar as it is most closely linked to the issues of financial management and performance evaluation.

The relations between fiscal position and long term sustainability are at the core of the QPF multidimensional model. Scholars have identified six transmission channels between fiscal position and long term growth (Tanzi & Chalk, 2002), giving evidence of the private investments crowding out growth, and the negative impact of unsustainable fiscal positions on the expectations of the economic agents. In addition, an unaccountable fiscal policy of one member would interfere with centralized monetary policymaking and spill over into other members of the monetary union (European Central Bank, 2004).

Regarding the structure and the efficiency of revenue system, even if there is evidence that the shift from labor to consumption taxation has a positive effect on growth, the question of the relation between taxation and growth is very complex (see Heady, 2005, for a mapping of different types of taxes and drivers of growth and Padovano & Galli, 2001, 2002, for an analysis of the effects of the different direct taxes). As a matter of fact, the objective of a tax system is to raise funds for public services and goods and to reallocate incomes, addressing externalities and supporting specific public policy targets (European Commission, 2008). Each country has its own specific context, so across EU members the revenue structure varies greatly (Eurostat, 2007; OECD, 2007).



As regards the relation between the size of government and long term sustainability of public finance, in general terms a high level of public expenditure implies an enlargement of fiscal pressure with negative effects on private investments, consumers' behavior, and inputs productivity. Even though economists have found negative correlations between size of government and economic growth over time (Afonso & Furceri, 2008; Dar & Khalhali, 2002; Foelster & Henrekson, 1999), it must be considered that the question is very complex. First, public expenditure is affected by electoral cycles and political systems, so it tends to be time inconsistent and biased toward a higher deficit (Alt & Lassen, 2006; Personn & Tabellini, 2002 and 1999). Moreover, the size of government reflects political choices related to social cohesion and, in turn, different welfare models and public service provisions (European Commission, 2008). In addition, it must be considered that public expenditure represents an economy stabilization factor (Martinez-Mongay, 2002).

The debate becomes more complex if we consider not only the level of public expenditure, but also its composition. In this context it has been already noted that, even if there is agreement on the productivity of certain types of expenditures (R&D, infrastructure and education), the percentage of public expenditure classified as productive is estimated by scholars to be between 5% and 44% of GDP (European Commission, 2004b). Moreover, a reallocation of public resources cannot be a strategy sufficient to improve QPF; it needs to be supplemented by a more efficient use of resources. As a result, assessing the efficiency and effectiveness of public expenditure is a focal point of the QPF, because it establishes the relationships among inputs (public resources), outputs (efficiency) and outcomes (effectiveness) which, in turn, imply the adoption of performance management tools (Crain & O'Roark, 2004).

Generally speaking, the introduction of performance management tools has been one of the most widespread international trends in public management (Boyne & Brewer 2010; Moynihan & Pandey, 2010; Moynihan, 2006; Andrews, Boyne & Walker, 2006; Pollitt, 2006; Boyne, Meier, O'Toole & Walker, 2005; Coates, 2004; Pollitt & Bouckaert, 2004; Behn, 2003; Talbot, 2000) since the birth of New Public Management (NPM). This issue has been widely studied also in practice (Andrews, Boyne, Meier, O'Toole & Walker, 2005; Andrews, Boyne & Walker, 2009; Dalehite 2008; Boyne & Chen, 2007; Chun &

Rainey 2005; Forbes & Lynn 2005). To evaluate the efficiency and effectiveness of public expenditures at the European level the classic IOO (input-output-outcome) model is used. For many years, scholars focused their empirical analysis only on the measurement of technical efficiency through parametric (Sutherland, Price, Joumard & Nicq, 2007) and non-parametric (Verhoven, Gunnarsson & Carcillo, 2007; Afonso & Aubyn, 2006) statistical models, because information concerning economic efficiency and effectiveness useful to statistical and econometric analysis was unavailable. Moreover, the debate among statistical authorities highlights some limitations of the IOO model. In particular, the evaluation of the efficiency and effectiveness of public service provisions must be considered to be a quality aspect. In this regard, Eurostat identified three evaluation methods (Eurostat, 2001) according to the Aktinson report (Aktinson, 2005 – a first version was published in 2001). Therefore, evaluating the performance of providing public service implies different levels of efficiency and effectiveness that need to be identified in relation to different levels of accountability according to the planning and control processes (Brunelli, Giosi & Testarmata, 2010).

### THE DIMENSIONS OF FISCAL GOVERNANCE

According to the European framework of QPF, fiscal governance is a dimension composed of other dimensions. Fiscal governance can be defined as “the institutional side of fiscal policy as it comprises the set of rules and procedures determining how public budgets are prepared, carried out and monitored” (European Commission, 2008, p. 128). Fiscal governance allows the EU countries to achieve sound fiscal positions and supports structural reforms in the medium and long term. In addition, fiscal governance encompasses all the elements limiting the trend of deficit enlargement (*deficit bias*) caused by policy-makers’ behavior (Buti & van De Nord, 2004; European Commission, 2006b; von Hagen & Hallerberg, 1999; Alesina & Perotti, 1994). These behaviors reflect the *common pool problem* in which agents do not consider all the costs of their decisions. Then, the problem is to define a system of financial and reputational incentives and costs in order to push government to adopt sustainable fiscal policies.

In this context, fiscal governance plays an essential role and completes the European fiscal rules based on the SCP and EDP (Pina

& Venes, 2011). To some extent, national fiscal governance seems to be a focal point to make the European surveillance procedures effective, particularly with regard to the preventive arm (European Council, 2010a, 2010b; European Commission, 2010b; Ecofin Council, 2010b; European Council Secretariat, 2010). The effectiveness of the stability convergence programmes, in fact, depends on the relations between the national fiscal framework and the European one and their reciprocal influences.

Many empirical studies have shown direct relations between the dimensions of fiscal governance and sound fiscal positions of the EU countries (European Commission, 2010a, 2009a, 2008, 2007, 2006a; Hallerberg, 2004; Poterba & von Hagen, 1999; von Hagen & Harden, 1994). At the beginning, fiscal governance was composed of the numerical fiscal rules, the independent fiscal institutions, and the Medium Term Budgetary Frameworks (MTBFs). Subsequently, the framework has been enlarged, encompassing the budgeting procedures according to the consideration of the forthcoming European semester. As yet, however, there are no analyses considering a general framework with respect to fiscal governance and its effects on the sustainability of public finance. Therefore, in the following paragraphs, we depict the dimensions of fiscal governance, providing a more general framework for understanding the European economic and fiscal policy debate.

### **Numerical Fiscal Rules**

Fiscal rules have been defined as a permanent constraint on the fiscal policy expressed by a performance synthetic index or with reference to an intermediate aggregate, such as current expenses, capital expenditures, or primary balance (Hallerberg, Strauch & Hagen von, 2007). The European Commission has conducted a survey to monitor the implementation of numerical fiscal rules by member states. This survey, conducted in 2006 and updated in 2009, was based on a specific questionnaire investigating the common characteristics of the fiscal rules applied by EU countries, based on statutory rules and political agreements. In sum, the survey identified 60 fiscal rules in force in 2006 and 67 in 2008 (European Commission, 2009a). However, the European Commission has stressed that there were no significant improvements in the fiscal rules (European Commission, 2009a, pp. 87-93) and MTBF (European Commission, 2009a, p. 95) adopted by EU countries with

respect to the previous survey. Moreover, the results give evidence of a positive correlation between the use of fiscal rules and the improvement in the Primary Cyclical Adjusted Budget Balance (Krogstrup & Wälti, 2008).

An interesting issue is that scholars consider the effectiveness of the fiscal rules to be a function of its characteristics, i.e., how the framework of fiscal rules is designed, with particular attention to their legal basis, monitoring mechanisms, and enforcement procedures (Ricciuti, 2008; Inman, 1996). This implies that the fiscal rules framework constitutes an important dimension to make fiscal policy effective and ensure political commitment with the aim of avoiding pro-cyclical policies by influencing budgetary policies (Brzozowski & Siwińska-Gorzela, 2010; Ayuso-i-Casals, Deroose, Flores & Moulin, 2009; Deroose & Kastrop, 2008; Debrun, Moulin, Turrini, Ayuso-i-Casals & Kumar, 2008; Anderson & Minarik, 2006; Rose, 2006).

### **Independent Fiscal Institutions**

The second element of fiscal governance is the independent fiscal institutions that are instrumental in improving fiscal policy making by providing positive and/or normative analysis, assessments, and recommendations in the area of fiscal policy. Independent fiscal institutions are defined as nonpartisan public bodies, other than the central bank, government, or parliament, that prepare macroeconomic forecasts for the budget, monitor fiscal performance, and/or advise the government on fiscal policy matters (Ayuso-i-Casals et al., 2009). These institutions are primarily financed by public funds and are functionally independent vis-à-vis fiscal authorities.

The relevance of fiscal institutions is due to the fact that they may provide macroeconomic forecasts for budget preparation that do not suffer from the optimistic biases often found in official government forecasts; they may impartially monitor the implementation of budget plans and the respect of budgetary objectives; they may raise awareness about short and long-term costs and benefits of budgetary measures both among policy-makers and the public, and finally they can assess whether fiscal measures are appropriate in terms of respect of rules, sustainability of public finances, and stability-oriented fiscal policies (Hallerberg & Wolff, 2008; Jounng & Larsch, 2006). Therefore, the presence of independent fiscal institutions, particularly for forecasting, makes the design of annual and multiyear

budgets more credible (Hagen von, 2010; Wehner, 2006). Obviously the influence of independent fiscal institutions on government behavior through the creation of reputational costs will be lower if these independent institutions have only advisory and monitoring tasks, e.g. the analysis of long-term sustainability, the financial evaluation of policy measures, or the assessment of compliance with the fiscal rules imposed by national frameworks, and do not result in binding inputs to government planning (Hallerberg & Yläoutinen, 2010).

The European Commission carried out a survey of independent fiscal institutions in 2006 and updated it in 2008. The survey considered as independent fiscal institutions those entities that produce ongoing analysis and recommendations in the matter of fiscal policy (European Commission, 2009b). The empirical results show, except in Italy, a good diffusion of independent fiscal institutions involved in the forecasting phase, even though in most cases the government is free to base its fiscal policy on its own forecast without giving any rationale for its assumptions. The descriptive analysis conducted by the European Commission shows that the independent institutions contribute to the public community and media debate on the issue of fiscal policy. Even though the EU countries having independent fiscal institutions exhibited better budget performance during the last fifteen years, the difficulty in carrying out statistical analysis led the European Commission to consider the independent bodies as an exogenous variable.

### **Medium Term Budgetary Frameworks**

The third element of fiscal governance is the medium term budgetary frameworks (MTBFs). The MTBFs define the multi-annual framework of fiscal policy and are composed of a strategic plan reflecting public policies and a financial forecast document setting forth budgetary projections related to a specific macro-economic and public finance scenario (Lonti & Woods, 2008; European Commission, 2007; Moulin & Wierds, 2006).

An appropriate MTBF makes the fiscal rules more reliable and leads the decision-making process by offering an alternative to the short term orientation that has often led policy makers to accept deficits (Persson & Svensson, 1989). The MTBF, on the one hand, forces the government to make a commitment at least on the trend of public expenditure macro-aggregates, and on the other hand, it

makes it more difficult to hide or understate the financial effects of new public policies. In addition, an adequate MTBF provides the framework within which the annual fiscal policy takes place. Obviously, an MTBF does not seem complete if the forecasts focus just on the trend of total public expenditures or on a multi-annual projection of a performance indicator of fiscal policy. An appropriate MTBF needs an in-depth functional analysis of public expenditures which, in turn, needs to be classified with reference to programs, public policies, and, eventually, ministers' activities. The European Stability and Convergence Programme (SCP) is an MTBF in itself. However, it needs to establish one-to-one relations with a national MTBF, so that the targets set in Europe will become binding and operative through the annual budgets, as in the case of European Semester (European Commission, 2010a).

However, to be effective the MTBF needs to be designed according to some characteristics generally accepted in literature. First, the MTBF should be based on reliable macro-economic forecasts and prudent assumptions. This stems from the fact that overly optimistic macro-economic forecasts, making available additional resources, generate upward pressure on public expenditures in the multi-annual spending plans (Moulin & Wiertz, 2006; Larch & Salto, 2005). Some methods can be used to limit the effect of overly optimistic forecasts too.

Second, clear and strict rules must be set to avoid the constraints of government deficit bias on the MTBF. In this regard, to foster a high degree of political commitment the MTBF should involve all levels of government that are active participants in public policy implementation, and national parliament and establish a relation with the annual budget law. The budget law, in fact, should be consistent with the previously approved multi-year policy framework. In other words, the annual budget should consider the practical application of an MTBF; otherwise the MTBF would be revised according to the short term national fiscal policy. In fact, if the definition of the annual budget required an update of MTBF, the MTBF approved in past years would be less restrictive. Obviously, MTBF revisions can be accepted, but only in exceptional cases resulting from extraordinary changes in the environment.

Thirdly, in Europe we can distinguish between flexible and fixed MTBFs. The flexible frameworks allow an annual comprehensive

review of the medium-term objectives depending on economic and policy changes approved by the government, while the fixed frameworks set a more or less detailed series of public finance and aggregate budget objectives for a predetermined period. The fixed frameworks provide stronger guarantees against the use of pro-cyclical policies, especially in periods of economic expansion, and ensure a greater dependence of the annual budget from the medium-term planning.

Finally, the MTBF can be distinguished according to the details of the financial projections contained therein. In this regard, it should be underlined that the MTBF has to follow the constraints of the annual budget. Therefore, the MTBF should delineate the medium-long term strategic objectives that are the basis of operational planning and resources allocation. This allows the government to move in a well-defined framework in which the administrative action must take place. In this context, however, the MTBF leadership style must be defined; this style may be more or less participatory, depending on the strength and weight of the Treasury and the Prime Minister.

### **Budgeting Procedures**

The budgeting procedures constitute the last dimension of fiscal governance. There is a strong link between budgeting procedures and the other dimensions of the fiscal governance (Ranalli & Giosi, 2011) because budgeting procedures are used in the preparation, approval and execution of the budget (European Commission, 2007, p. 132). An abundant empirical literature exists on the effectiveness of budgetary procedures in improving fiscal performance (e.g., Fabrizio & Mody, 2006; Poterba & von Hagen, 1999). Scholars have noted that the characteristics of budgeting procedures have influenced public expenditure efficiency and the capability to achieve the budgetary targets fixed ex-ante (Blondal, 2004, 2003a, 2003b; Carlin, 2003). These characteristics are the prudent economic assumptions underlying the budget projections, the use of financial planning tools extending over a multi-year horizon, the use of techniques tending to centralize the budget process and focus on results rather than on inputs, and the use of procedures to ensure an adequate level of transparency.

The European Commission carried out an analysis of the European budgeting procedures based on the data available in the

OECD database “International budget practices and procedure” (OECD, 2003), using an index composed of seven characteristics (European Commission, 2007, pp. 131-145). These are as follows:

- **Budget transparency** with elements ensuring government accountability for its policies. Transparency is synthesized in the completeness, clarity, and timeliness of financial information and disclosure of public policies implemented by government and public administration (Alt & Lassen 2006; OECD, 2002; IMF, 2001);
- **Multiannual planning horizon**, referring to the elements that commit the government to predefined policies and behavior with the aim of strengthening the quality of budgeting procedures and evaluating, *ex-ante* and *ex-post*, the fiscal policy;
- **Centralization of the budget processes**, including those elements of the budgetary procedures that limit the impact of the common pool resource problem, mainly related to a “delegated” framework, where spending decisions are fragmented between autonomous cost centers that internalize the benefits without the associated costs related to an increase in public debt, or, alternatively, to an increase of taxation required to finance such expenses (Gleich, 2003; Hagen von, Hallet & Strauch, 2002; Hagen von, Hallet & Strauch, 2001);
- **Centralization during execution**, including special procedures enabling the budgetary authority to intervene in the line ministries’ management of the budget. It should be emphasized that the centralization of the budget must be seen as a control variable to monitor the effectiveness of other characteristics of budgeting procedures, such as top-down budgeting and performance management, which require a greater budgetary flexibility in the implementation of expenditure plans already approved;
- **Prudent economic assumptions**, assuring the reliability of budgetary procedures and sound fiscal positions flowing from the budget and to avoid over-optimistic macroeconomic forecasts and projections. These anomalies, as already noted, appear to be limited by the involvement of independent fiscal institutions through budgeting procedures and the adoption of accounting



techniques aimed at basing the budget definition on a less positive scenario and using the reserve funds;

- **Top-down budgeting techniques**, avoiding the disadvantages of the bottom-up methodology in which a trend toward the expansion of public spending is due to the fact that ministerial requests are quantified in an amount greater than that actually necessary because the ministries have no incentives to reduce their funding requests (Kim & Park, 2006). In top-down budgeting, the definition of budget objectives is widely linked to the implementations of the ceiling expenses, and spending review tools are used both in the budgeting discussion made by the government and in the approval procedure made by Parliament with the aim to reduce the spending trend associated with the bottom-up budgeting. In general, the top-down budget techniques include the application of mandatory spending limits, fixed at Ministry or public policy levels, determined in relation to the political priorities set out in the strategic planning. The public budget will be then divided among programs, and spending review tools are used by the Ministries that have a greater autonomy with regard to resource allocations;
- **Performance budgeting**, using a result-oriented budget rather than an input-based budget. Performance budgeting strengthens the links between the resources provided for the program and its output or outcome, to assure the quality of public finance and improve the effectiveness and efficiency of public expenditures. Performance budgeting appears particularly important in light of the medium- to long term financial pressures linked to the sustainability of public finances, and improvement of public expenditure effectiveness and efficiency, in micro and macroeconomic terms (Robinson & Brumby, 2005; Joumard, Kongsrud, Nam & Price, 2004). It should be noted that performance budgeting is a financial and accounting dimension of an organizational accountability process that requires, once the budgetary objectives are defined, an increase in autonomy in the management of resources. In sum, the control over the input moves from the political to the managerial level, to enable managers to redirect resources in a more expeditious way in relation to the needs of the public administration activity, realizing, in practice, the separation between ownership and

control of resources. Obviously this requires that the system is homogeneous and there is a coincidence of interests. In particular, performance budgeting should ensure that the programs most profitable for managers are also the most politically desirable; otherwise opportunistic behavior and no coincidence of the objectives will occur in the public sector.

The characteristics under investigation show that the budgeting procedures analysis encompasses the general arrangement of the national budget institutions and is strongly linked to other dimensions of the fiscal governance.

### METHODS

The methods used to provide a general framework for analyzing fiscal governance are a systematic literature research and an empirical analysis. The literature analysis investigates the financial management and accounting research in public administration and provides an assessment of the academic literature on fiscal governance. The empirical analysis concerns the fiscal governance in the European Union. This analysis is based on the datasets recently collected by the European Commission and OECD (European Commission 2009b; OECD, 2003, 2008) concerning the main dimensions of fiscal governance (numerical fiscal rules, independent fiscal institutions, MTBFs, and budgeting procedures) and supported by a descriptive statistical analysis to verify some hypotheses coming from the theoretical background. For this reasoning, we formulate the following hypotheses:

H<sub>1</sub>: there is an overlap among the characteristics of the fiscal governance dimensions

H<sub>2</sub>: there is a correlation between the quality of fiscal governance and budget performance

With this aim, we first analyzed the indexes defined by the European Commission (2007, 2008) for the measurement of the single dimensions of the fiscal governance highlighting their relations according to a managerial approach. We then defined a synthetic index of fiscal governance, including its dimensions and their characteristics, to evaluate the quality of the “national budgetary systems” in terms of public finance sustainability.

In particular, we noted that analysis is based on the official data provided by the European Commission. Therefore, the data concerning the various dimensions of fiscal governance were collected in different years. The data concerning numerical fiscal rules, independent bodies, and MTBFs were collected in 2008, whereas the data regarding the budgeting procedures were collected in 2003. The latter were based on the OECD dataset published in 2003 (OECD, 2003) and used by the European Commission analysis in 2007 (European Commission, 2007), although the OECD published a new release in 2008 using 2007 data (OECD, 2008). In addition, the sample for the Fiscal Governance (FG) index was composed of the 17 EU countries for which all the data concerning the fiscal governance dimensions was available.

## RESULTS AND DISCUSSION

### An Assessment of European Commission Indexes

A relevant part of this research has been construction of a general index to assess the quality of fiscal governance in EU countries. With this aim we started our analysis from the indexes set by the European Commission to analyze the dimensions of fiscal governance. In particular they are the fiscal rule index, the MTBFs index, and the budgeting procedures index. Each index was composed of several characteristics, represented by some specific questions taken from the questionnaires collected in 2008 and statistically analyzed. We briefly outlined the main characteristics of the European Commission indexes; then we provided a descriptive analysis of the possible relations among the individual characteristics of these indexes.

On the basis of the six characteristics of fiscal rules (coverage of fiscal rule; statutory base of the rule; nature of the body in charge of monitoring the respect of the rule; nature of the body in charge of enforcement of the rule; enforcement mechanisms of the rule; media visibility of the rule), the fiscal rules index was determined by assigning to each characteristic a value between 0 and 4 depending on the information contained in the questionnaire. These scores were then standardized because of the high number of different quality aspects considered for each attribute. This allowed the European Commission to derive a standard value for each desirable characteristic between 0 and 1. The results showed a positive correlation between fiscal rules and sound fiscal position. At this

stage, the European Commission did not take into account the fact that the fiscal rules adopted were not of the same types. A fiscal rule in fact could be related to a different category: it can be an expenditure rule, a budget balance rule, a revenue rule, or a debt rule.

As regards the MTBFs, the European Commission identified five desirable characteristics: existence of a domestic medium-term budgetary framework; connectedness between the multi-annual budgetary targets and preparation of the annual budget; involvement of national parliaments in the preparation of the medium-term budgetary plans; existence of coordination mechanisms between general government layers prior to setting the medium-term budgetary targets for all government tiers; and monitoring and enforcement mechanisms of multi-annual budgetary targets. For each of these characteristics the European Commission assigned a value between 0 and 2 depending on how the EU country's situation resembles the optimal and desirable situation. The results showed that countries with a high score on the MTBF quality index have better budget performance and fiscal discipline.

In regard to the budgeting procedures, the European Commission identified seven characteristics (transparency, multiannual planning horizon, centralization of the budget process, centralization during execution, top-down budgeting, prudent economic assumption, and performance budgeting). For each characteristic of the budgeting procedures the European Commission defined an index through selected OECD dataset questions linked with some aspects considered relevant on the basis of existing literature (Ayuso-i-Casals, Hernandez, Moulin & Turrini, 2007), but without giving evidence of the questions chosen. Table 1 shows the aspects connected with each characteristic.

The European Commission assigned a score between 0 (lowest) to 5 (highest) to each selected question. Additionally, the European Commission defined a series of "compound indexes" such as the overall degree of centralization, the overall quality index and an overall index. These indexes were constructed using an un-weighted average of the indexes of individual characteristics of budgeting procedures, but standardized to take into account differences between countries. These correlations express the importance of

**TABLE 1**  
**Characteristics of Budgeting Procedures**  
**and EU Commission Relevant Aspects under Investigation**

Index	EU Commission aspects under investigation
<i>Transparency</i>	Timeliness of general government account; disclosure of macroeconomic assumptions; follow up on recommendations from national audit body; time for the auditor and legislator to scrutinize the budget; existence of multi-year cost estimates for net spending; comprehensiveness of the budget information that included off-budget funds
<i>Multiannual planning horizon</i>	Existence of national medium term budget targets; the legal basis for the medium term budgetary framework; the identification of deviations between medium term targets and annual budget; existence of multi-year expenditure estimates and macroeconomic forecasts
<i>Centralization of the budget processes</i>	Power of Prime Minister (or Secretary of the Treasury) to limit Parliament's amendments to the budget
<i>Centralization during execution</i>	Power of the central budget authority to withhold funds during implementation of the budget; existing restrictions in changes in expenditures outside the budgeting procedure; participation of the central budget authority in the evaluation of the budget implementation
<i>Use of top-down budgeting techniques*</i>	Information about the link between the medium-term framework and the annual budget process; sequence of voting in Parliament; degree of flexibility of the line ministers/agency managers within their budget area
<i>Prudent economic assumptions</i>	Delegation of forecasting to independent institutions; the review of the macro economic assumptions by independent institutions; the existence of budget reserves and the formal rules for their use
<i>Performance budgeting</i>	Regular presentation of non-financial performance data in the budget document; the responsibility for achieving the performance targets; the monitoring of the performance against targets; use of performance indicators in determining budget allocations

Notes: \* For this index the EU Commission considered the information of the OECD dataset incomplete.

Source: Our elaboration on EU Commission analysis.

proper structuring of (strategic and financial) planning systems and results-oriented operational planning, which will be coordinated by the government, including the fiscal rules, and developed in the medium to long term.

Finally, we determined that the sample fragmentation prevents the determination of causality relations between the characteristics of independent fiscal institutions and budget outcomes. As a result, no index of independent fiscal institutions has been defined. Therefore, the European Commission carried out exclusively a qualitative analysis, showing that in the majority of cases the independent fiscal institutions were established a long time ago and have not been affected by institutional reforms. Hence the independent fiscal institutions could be assumed to be exogenous variables.

To summarize, Table 2 shows the empirical evidence provided by the European Commission's analysis concerning the characteristics of numerical fiscal rules, MTBFs, and budgeting procedures in the main EU countries. The results are presented by ranking the EU countries according to their score on each index.

We now proceeded to test our hypotheses through an appropriate analysis of the available data. We identified a critical aspect in the definition of the fiscal rule values. In fact, the European Commission databases covered all the fiscal rules adopted for every country since 1990. For this analysis, we kept only the fiscal rules that are actually still in force in the countries selected. Afterwards we considered a

**TABLE 2**  
**The Ranking of EU Countries**

Country	Fiscal rules	MTBFs	Budgeting Procedures
Austria	14	2	13
Belgium	12	8	11
Czech Republic	8	11	14
Germany	7	9	9
Denmark	2	4	8
Slovak Republic	15	14	6
Spain	3	5	4
Finland	6	3	7

TABLE 2 (Continued)

Country	Fiscal rules	MTBFs	Budgeting Procedures
France	9	13	10
Hungary	13	17	15
Ireland	17	16	17
Italy	10	12	16
The Netherland	4	7	3
Portugal	16	15	12
Sweden	5	1	2
Slovenia	11	10	5
United Kingdom	1	6	1

Note: The table shows the rankings of EU countries according to the indexes set by the European Commission for each of the FG dimension. The EU countries are shown in alphabetic order, however the assigned position in each ranking depends on the score gained by the EU countries on each index (European Commission, Public Finance in EMU, 2007 and 2008).

Source: Our elaboration on EU Commission analysis.

country more important if it had set fiscal rules of different types (expenditure rules, debt rules, revenue rules, budget balance rules) and according to this consideration we weighted the score of each country.

Given this, the first hypothesis tested is the following:

H<sub>1</sub>: there is an overlap among the characteristics of the fiscal governance dimensions

In order to provide a comprehensive framework for the analysis of fiscal governance, we needed to study the relations among the individual characteristics of the indexes concerning the numerical fiscal rules, the MTBFs, and the budgeting procedures. We obviously were compelled to exclude the independent fiscal institutions from the analysis because no indexes are provided by the European Commission. Thus, we separated these indexes into their individual characteristics with the aim to eliminate overlapping measures by highlighting the correlations between individual characteristics, and provide a standard measure of each characteristic useful for the

construction of an overall index of fiscal governance. In particular, we expected an overlap between the characteristics of the budgeting procedures – specifically multiannual planning horizon, prudent economic assumptions, centralization of budgeting procedures and top-down budgeting technique – and the characteristics of the MTBFs and numerical fiscal rules. The results are presented in Table 3.

Contrary to our expectations, the descriptive analysis does not show any significant correlations among the individual characteristics of budgeting procedures above, MTBFs, and fiscal rules. This result is probably due to the fact that the European Commission used an ad hoc questionnaire to collect data for each dimension under investigation, looking at the same characteristics from different points of view. However, some overlapping between other characteristics emerged. In particular, we found that “enforcement bodies,” “noncompliance action,” “media visibility,” and “performance budgeting” presented high correlations with most of the other characteristics. This evidence highlights the fact that those characteristics are somehow “captured” by the others, making them useless duplications. For this reason in the construction of the general index of fiscal governance they will be eliminated. The first hypothesis is, therefore, partially accepted.

### **An Overall Index of Fiscal Governance**

The second hypothesis stated:

H<sub>2</sub>: there is a correlation between the quality of fiscal governance and budget performance.

In order to test H<sub>2</sub>, we needed to assess the quality of fiscal governance in the EU countries. Thereby, we proposed a synthetic index of fiscal governance considering contemporaneously the characteristics of fiscal rules, MTBFs, and the budgeting procedures in the member states. As we have seen in the H<sub>1</sub> testing, some characteristics (enforcement bodies, noncompliance actions, media visibility, and performance budgeting) were correlated with others. Indeed, for the construction of the overall index of fiscal governance (hereafter FG Index) we excluded them. We took into consideration all the questions selected by the European Commission to set up a single index for describing fiscal governance in the European Union. We established our FG Index by taking an un-weighted average of the



**TABLE 3**  
**Correlations among Characteristics of MTBFs, Fiscal Rules and Budgeting Procedures Dimensions**

	MTBFS										FISCAL RULES										BUDGET PROCEDURES									
	National MTBF existence	MTBF and annual budget connectiveness	Top involvement	Example coordination	Monitoring and enforcement	Coverage of GG finances	Statutory base margin	Adjustment body	Monitoring body	Tax mechanism	Enforcement body	Non-compliance actions	Escape clauses	Media visibility	Budget transparency	Multianual planning horizon	Centralization budget process	Centralization during execution	Top-down budgeting	Product economic assumptions	Performance budgeting									
<b>MTBFS</b>	1.00	0.39	0.31	0.49	0.54	0.34	-0.06	0.21	0.30	0.12	0.21	0.39	-0.05	0.42	0.01	0.29	0.15	0.09	0.06	0.40	0.52									
MTBF and annual budget connectiveness		1.00	0.70	0.04	0.28	0.53	0.24	0.35	0.40	0.35	0.29	0.32	0.33	0.60	0.46	-0.01	0.02	0.07	0.35	0.23	0.78									
Top involvement			1.00	-0.32	0.14	0.46	0.36	0.32	0.37	0.18	0.14	0.16	0.37	0.45	0.43	0.19	0.10	0.26	-0.01	0.44	0.41									
Example coordination				1.00	0.38	0.03	-0.19	0.01	-0.05	0.12	0.14	0.15	-0.29	0.17	-0.05	-0.11	-0.19	-0.14	0.20	-0.22	0.16									
Monitoring and enforcement					1.00	0.08	0.48	0.39	0.34	0.36	0.59	0.46	0.60	0.36	-0.16	-0.39	0.11	0.18	-0.14	0.07	0.28									
Coverage of GG finances						1.00	0.16	0.48	0.45	0.27	0.22	0.41	0.07	0.57	0.67	0.63	0.07	-0.42	0.37	0.19	0.58									
Statutory base margin							1.00	0.83	0.73	0.52	0.80	0.32	0.72	0.65	-0.01	-0.28	0.36	0.46	-0.12	0.04	0.13									
Adjustment body								1.00	0.89	0.68	0.85	0.40	0.41	0.81	0.26	0.08	0.40	0.22	0.16	0.12	0.45									
Monitoring and enforcement									1.00	0.49	0.82	0.51	0.27	0.79	0.06	0.12	0.69	0.20	0.20	0.24	0.50									
Escape clauses										1.00	0.74	0.44	0.32	0.44	0.44	-0.16	0.08	0.01	0.28	0.07	0.60									
Media visibility											1.00	0.65	0.45	0.67	-0.01	-0.24	0.45	0.21	0.07	0.08	0.49									
Budget transparency												1.00	0.21	0.51	0.07	0.13	0.40	-0.17	0.19	0.12	0.59									
Multianual planning horizon													1.00	0.38	0.00	-0.38	0.03	0.40	-0.14	0.08	0.07									
Centralization budget process														1.00	0.24	0.22	0.36	0.23	0.39	0.04	0.55									
Centralization during execution															1.00	0.42	-0.26	-0.32	0.49	0.11	0.50									
Top-down budgeting																1.00	0.14	-0.36	0.33	0.20	0.15									
Product economic assumptions																	1.00	0.27	0.17	0.35	0.20									
Performance budgeting																		1.00	-0.37	0.42	-0.10									
																			1.00	-0.32	0.44									
																				1.00	0.33									
																					1.00									

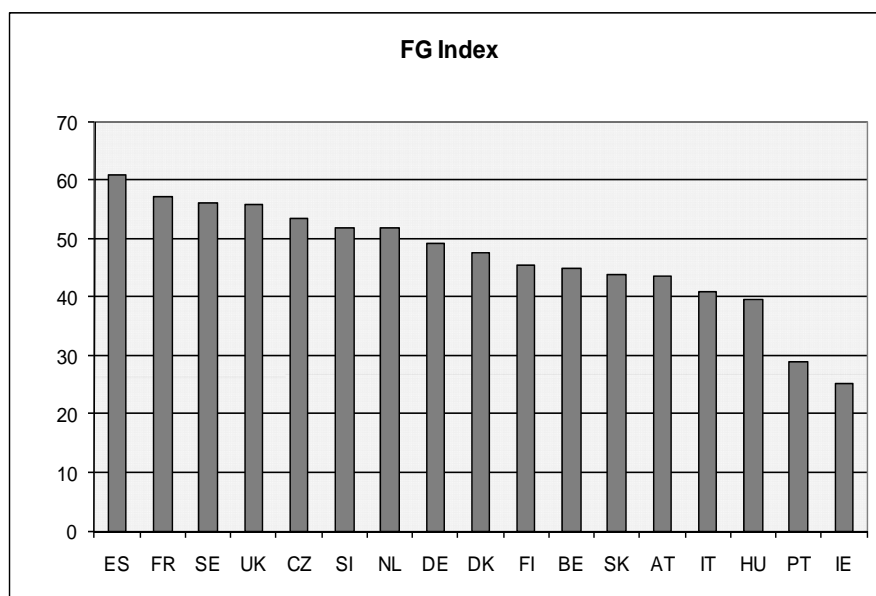
Notes: The table illustrates the correlations between the single characteristics of the FG dimensions to verify if there is an overlap among them and, in case, drop redundant information.

Source: Our elaboration on EU Commission data.

scores that each country achieved in each question, expressed as a percentage of the maximum possible score in order to have an homogeneous set of data. The ranking of each country is shown in the following histogram (see Figure 2).

The results are expressed in percentages. The highest values are achieved by Spain and France (60.74% and 57.02%). This means that

**FIGURE 2**  
**The Fiscal Governance Index**

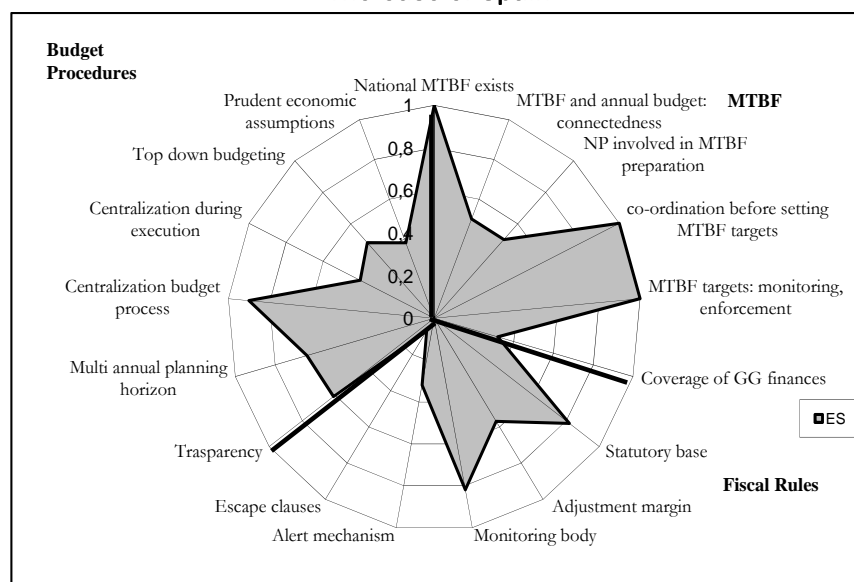


Notes: The FG index is a synthetic indicator of the dimensions composing the Fiscal Governance calculated as un-weighted average of the scores that each country achieved in each question, expressed as a percentage of the maximum possible score in order to have a homogeneous set of data. The ranking of the countries are shown and collected in the following histogram. The index is based on the official data provided by the European Commission. The data concerning numerical fiscal rules, independent bodies, and MTBFs were collected in 2008 (by the European Commission), whereas the data regarding the budgeting procedures were collected in 2003 by the OECD and used in the European Commission's analysis in 2007 (European Commission, 2007). The sample is composed of the 17 EU countries for which all the data concerning the fiscal governance dimensions are available.

on average, if the maximum score for each fiscal governance dimension is equal to 100, they reached about 60. In the last positions are Italy, Hungary, Portugal, and Ireland (between 41% to 25%). From a first analysis, it must be noted that the European countries do not show a good result in the implementation of fiscal governance tools, as required by the European Commission and by the theory. The maximum level of 60% cannot be assumed as satisfactory. Moreover, even if Spain shows the best value and Greece's index cannot be calculated, the PIIGS countries (Portugal, Ireland, Italy, Greece and Spain) are centered in the lowest position.

An insight into the FG index composition is provided by analyzing the results of each characteristic for selected countries. Thus, we proposed the results of four explanatory cases: Spain, Hungary Ireland and Italy. Spain, in the first position, reached its high score thanks to a very positive performance in all the questions linked to the fiscal governance dimensions as shown in Figure 3.

**FIGURE 3**  
**The Case of Spain**



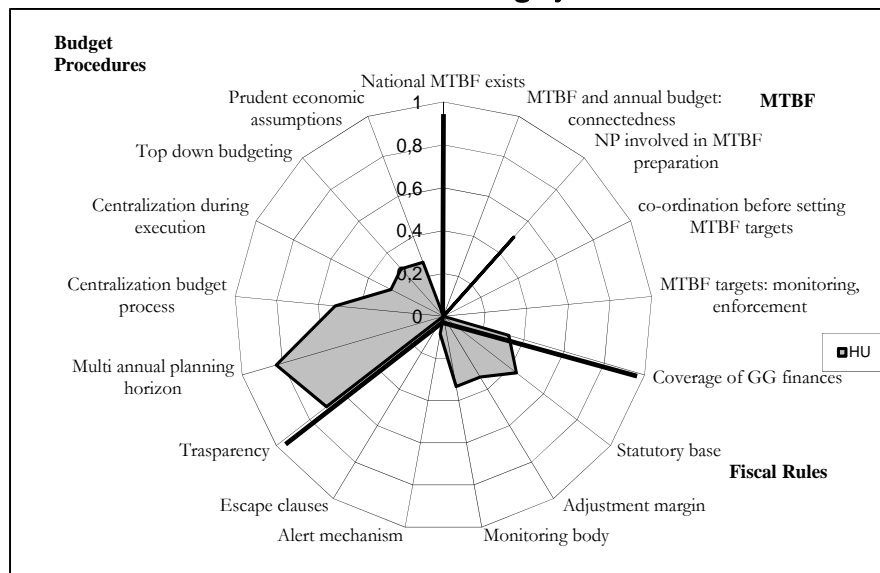
Notes: Spidergraph about the composition of the FG index. This illustration shows clearly the structure of the index by highlighting the score reached for each characteristic of each dimension.

Source: Our elaboration.

As shown in the figure, Spain's good performance in the FG index is due to the highly structured national fiscal framework characterized by the medium term horizon in which different levels of government were involved and coordinated by the central administration. The multi-year targets were enforced by monitoring tools based on fiscal rules and monitoring bodies ensuring a good accountability of the planning system. The fact that the MTBF, enforced by fiscal rules and budgeting procedures, influences directly the annual budget law appears as prerequisite to make fiscal governance actual in the national context. Thus, in the case of a clear link between European fiscal framework and Spain's fiscal governance, the European measures settled at a European level could have a direct impact on Spain's context. At the end, the Spain appears as the less troubled case of the PIIGS countries.

At the bottom of the barrel is Hungary (Figure 4), whose score is determined by an average performance with reference to fiscal rules

**FIGURE 4**  
**The Case of Hungary**



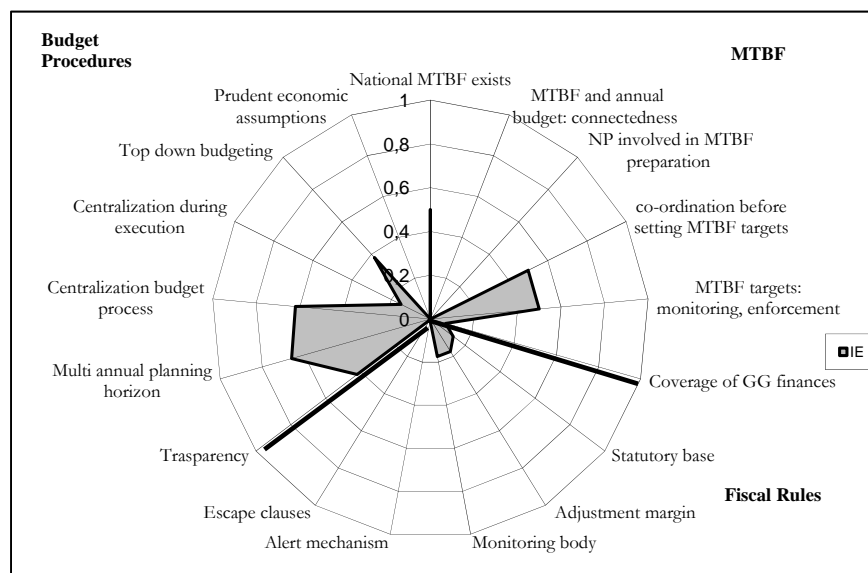
Notes: Spidergraph about the composition of the FG index. This illustration shows the structure of the index by highlighting the score reached for each characteristic of each dimension.

Source: Our elaboration.

and budgeting procedures, and a very negative performance in MTBF. Despite this evidence, Hungary is one of the few countries that improved its budget performance, at least to surplus level, during the financial crisis. This fact can be linked with its recent accession into the European Union.

Ireland exhibited the worst performance among the 17 EU countries. This evidence came from very negative scores in all of the dimensions investigated (except for a few characteristics that composed the MTBF dimension). This is useful as a preliminary explanation of the enduring crisis that hit Ireland, (see Figure 5), Portugal, Greece and Italy.

**FIGURE 5**  
**The Case of Ireland**



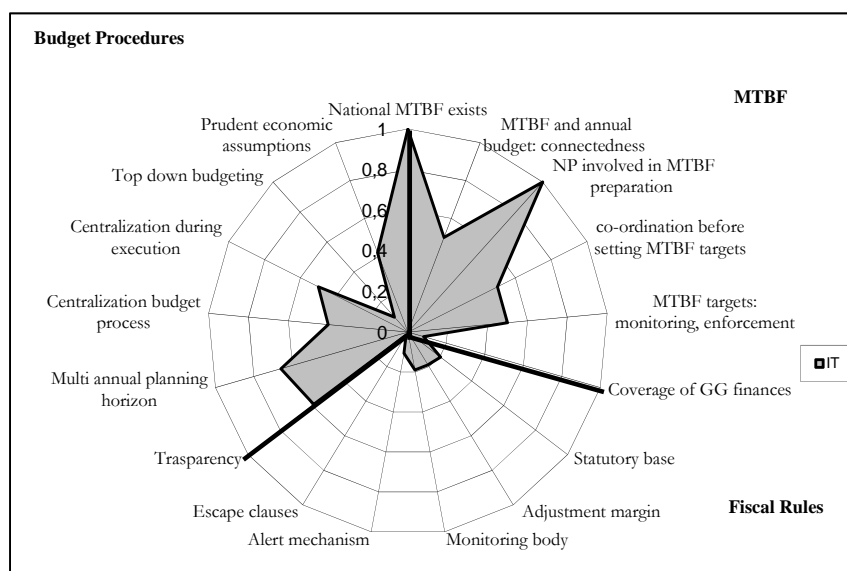
Notes: Spidergraph about the composition of the FG index. This illustration presents clearly the structure of the index by highlighting the score reached for each characteristic of each dimension.

Source: Our elaboration.

As regards Italy, the low performance on the FG index is doubtlessly due to the absence of fiscal rules able to correct the

dynamics of public finance during budget execution. In fact, despite fair scores related to the institutional profiles of MTBF, the scores related to the fiscal rules and budget procedures are very low. This evidence suggests the tendency to hold form over substance for what concerns the fiscal policy and a lack of internal control system and independent fiscal bodies (see Figure 6).

**FIGURE 6**  
**The Case of Italy**



Notes: Spidergraph about the composition of the FG index. This illustration indicates the structure of the index highlighting the score reached for each characteristic of each dimension.

Source: Our elaboration.

The FG Index can be used to evaluate the quality of the “national budgetary systems” in terms of public finance sustainability. In this respect, we investigated the relationship between the FG Index and the budget performance of the EU countries. We expected to find a general relation between the level of the FG Index in a country and its budget performance, even if the budget performance can be influenced by other economic, financial and political factors that go beyond the variables directly controlled by EU member states. This

seems actual under the current economic crisis period in which each country faces saving banks, sustaining economic growth, solving adverse unemployment problems and avoiding harmful financial speculation. So, in the short term, it could be that good fiscal governance is a necessary but not sufficient condition to take under control budget performances, while, in the medium term, fiscal governance appears more relevant.

We have chosen the level of surplus (structural balance) and the debt in 2007, 2008, and 2009 as indicators in relation to the GDP. These years have been chosen as the reference years of the financial crisis and subsequent recovery. Moreover, with the aim to take under control the medium term perspective, we analyzed the relation between fiscal governance and the variation of the level of surplus and debt during the time.

At first sight the connection between the value of the FG Index and the budget performance of each country was not always evident, especially with respect to the surplus. In particular, both Spain and the UK, despite their ranking with respect to the FG Index presented a high discrepancy in the level of surplus in 2007, 2008, and 2009 and, consequently, in the level of debt that tended to grow in order to finance primary deficit derived from recovery measures, even though the 2007 starting position was different and could play a political role. In fact, Spain's starting point is characterized by structural surplus and one of the lowest in debts that increased 17% of GDP in three years, while the UK's 2007 starting point was characterized by a structural deficit higher than a 3% threshold and a superior level of debt that showed the worst trend during the time.

Conversely, Hungary presents the opposite situation. Moreover, it is one of the two countries in which the surplus improved between the periods taken into consideration. The data presented is in the European Commission report (2010a) and was used, as well, for the correlation analysis.

A first attempt was a simple correlation analysis. All the 17 countries were included. The results are shown in the data presented in Table 5. From this preliminary analysis we can see that the hypothesis is weakly confirmed. The correlation value among our variables is too low to be considered relevant except for the relation between the Fiscal Governance Index and the change in debt value. Nevertheless, we note that the following:

1. The sign of the relation between fiscal governance and the two performance indicators is confirmed. As a matter of fact the relation between FG index and the surplus is positive, while the relation between FG index and debt is negative.
2. Even if the relation between FG index and the annual surplus does not appear significant, we confirm that the relation with the debt level increased during the time up to -0,32. Even though it is not statistically relevant, its tendency shows that fiscal governance seems to be linked more with the medium term variable. If we consider that the recovery measures endorsed

**TABLE 4**  
**FG Index and Financial Performance in the EU Countries**

EU country	FG Index	Surplus 2007	Debt 2007	Surplus 2008	Debt 2008	Surplus 2009	Debt 2009
Spain	60.74	1.20	36.20	-4.10	39.70	-8.9	53.2
France	57.02	-3.80	63.80	-3.80	67.50	-6.2	77.6
Sweden	56.01	1.60	40.80	1.10	38.30	1.9	42.3
United Kingdom	55.75	-3.90	44.70	-5.20	52.00	-9.5	68.1
Czech Republic	53.46	-2.90	29.00	-4.50	30.00	-5.4	35.4
Slovenia	51.90	-2.90	23.40	-4.80	22.60	-3.7	35.9
The Netherlands	51.67	-1.00	45.50	-0.50	58.20	-3.6	60.9
Germany	49.15	-1.20	65.00	-1.10	66.00	-1.7	73.2
Denmark	47.58	3.10	27.40	3.30	34.20	0.6	41.6
Finland	45.30	2.60	35.20	2.10	34.20	0.4	44
Belgium	44.82	-1.30	84.20	-2.10	89.80	-3.9	96.7
Slovak Republic	43.74	-3.70	29.30	-4.70	27.70	-6.6	35.7
Austria	43.53	-1.60	59.50	-1.70	62.60	-2.4	66.5
Italy	40.94	-3.20	103.50	-3.50	106.10	-4.0	115.8
Hungary	39.44	-5.50	65.90	-4.70	72.90	-2.2	78.3
Portugal	28.98	-3.10	63.60	-3.80	66.30	-8.1	76.8
Ireland	25.26	-1.60	25.00	-7.00	43.90	-9.3	64.0

Notes: Data overview.

Source: FG Index is based on our elaboration. Surplus and deficit data have been taken from: European Commission, Public Finance in Emu 2010.



**TABLE 5**  
**Correlations among FG Index and Financial Performance in the EU Countries**

	FG Index	Surplus 2007	Debt 2007	Surplus 2008	Debt 2008	Surplus 2009	Debt 2009	Δ debt 2007/2009	Δ debt 2007/2008	Δ surplus 2007/2009	Δ surplus 2007/2008
<b>FG Index</b>	1.00	0.22	-0.18	0.24	-0.27	0.16	-0.32	-0.40	-0.40	0.08	0.01
<b>Deficit 2007</b>		1.00	-0.34	0.78	-0.36	0.51	-0.38	-0.08	-0.12	-0.14	-0.22
<b>Debt 2007</b>			1.00	-0.03	0.97	0.06	0.93	-0.05	-0.17	0.43	0.33
<b>Deficit 2008</b>				1.00	-0.09	0.83	-0.20	-0.27	-0.49	0.51	0.32
<b>Debt 2008</b>					1.00	-0.03	0.98	0.19	0.03	0.35	0.24
<b>Deficit 2009</b>						1.00	-0.17	-0.38	-0.62	0.62	0.73
<b>Debt 2009</b>							1.00	0.26	0.19	0.21	0.11
<b>Δ debt 07/09</b>								1.00	0.85	-0.31	-0.37
<b>Δ debt 07/08</b>									1.00	-0.61	-0.61
<b>Δ deficit 07/09</b>										1.00	0.81
<b>Δ deficit 07/08</b>											1.00

Notes: the table shows the correlation results among our FG Index and the two main figures of the budget performance: debt and deficit. The last four columns indicate the correlation with the variation of the budget performance variables during the time.

Source: Our elaboration.

during 2008 were reflected most probably on the 2009 debt level, it is clear that there is an important need for good fiscal governance to manage the medium term effect of recovery measures. This is enforced by the relation between FG index and the variation on the debt level. This means that we can avoid fiscal governance issue in a good time, but we must enforce fiscal governance in bad time in order to take under control the medium effect of the recovery measures.

- Moreover, it can be assumed that the measures aiming at enhancing fiscal governance and the national fiscal framework affect budget performance on the medium term and, then, show

a delayed period to be effective. In addition, as stated in another section of the paper, we started from the European Commission dataset updated between 2007 and 2008. Even though the Commission realized that the European context did not show large improvement in fiscal governance, it can be the case that some countries have adopted small fiscal innovations that produced effect only in 2009.

Keeping in mind the above considerations and in order to find statistically relevant results, a further step carries out the correlation analysis without the UK and Spain considered as outliers countries. In fact, these two countries can be defined as outliers concerning the relation between the FG Index and surplus, in particular in the crisis time of 2008 and 2009. Thus, we considered that their influence could have been detrimental to the analysis given their anomaly with respect to the sample. The results are presented in Table 6. In particular, the correlation with surplus and debt in 2009 identifies a relation between the past position of the member states and their actual budget performance in longitudinal terms.

From the analysis carried out, we could confirm our hypothesis. First of all, both in 2008 and 2009 the FG Index was significantly (positively) correlated with the surplus. We can see a percentage of 42% in 2008 and of 53% in 2009. This means that a positive result of the country in the structural fiscal position was correlated with a high level of FG Index. The low level of correlation in 2007 can be explained by the incidence of the five new fiscal rules (endorsed between 2007 and 2008). The same cannot be said about the debt level; the results show only a weak negative correlation between the two elements under investigation (-0.23 and -0.33). Anyhow, the negative value reflects what we expected (a high value of the FG Index is partially associated with a low level of debt). This relation reflects the trends showed by the entire sample. This means that Spain and the UK had a low debt level and did not affect the relation on the average. Nevertheless, their exclusion reinforces the relation between FG index and the variation of the debt level.

In order to verify if there is some relation between the FG Index and the effect of the financial crisis after 2007, we ran the same correlation analysis with the variation ( $\Delta$  Surplus,  $\Delta$  Debt) of these elements between 2008 and 2007 and between 2009 and 2007. The

**TABLE 6**  
**Correlations among FG Index and Financial Performance in the EU**  
**Countries except Spain and UK**

	FG Index	Surplus 2007	Debt 2007	Surplus 2008	Debt 2008	Surplus 2009	Debt 2009	Δ debt 007/2009	Δ debt 2007/2008	Δ Surplus 2007/2009	Δ Surplus 2007/2008
<b>FG Index</b>	1.00	0.20	-0.12	0.42	-0.23	0.53	-0.33	-0.63	-0.49	0.49	0.48
<b>Deficit 2007</b>		1.00	-0.34	0.86	-0.34	0.65	-0.37	-0.09	-0.05	-0.14	0.04
<b>Debt 2007</b>			1.00	-0.07	0.97	-0.02	0.94	-0.14	-0.04	0.31	0.43
<b>Deficit 2008</b>				1.00	-0.12	0.84	-0.21	-0.43	-0.25	0.24	0.54
<b>Debt 2008</b>					1.00	-0.12	0.98	0.06	0.19	0.19	0.33
<b>Deficit 2009</b>						1.00	-0.22	-0.57	-0.40	0.66	0.57
<b>Debt 2009</b>							1.00	0.20	0.26	0.08	0.18
<b>Δ debt 07/09</b>								1.00	0.87	-0.65	-0.70
<b>Δ debt 07/08</b>									1.00	-0.47	-0.41
<b>Δ deficit 7/09</b>										1.00	0.70
<b>Δ deficit 7/08</b>											1.00

Notes: the table shows the correlation results among our FG Index and the two main figures of the budget performance: debt and deficit. The last four columns indicate the correlation of the FG index with the variation of the budget performance variables during the time.

Source: Our elaboration on EU Commission analysis

results show a high correlation between the FG index and the change in surplus (the effective values are 0.48 and 0.49), and a negative relation with the level of the debt in the years considered (-0.63 and -0.49). This means that a high level on the FG Index is related to a better budget performance on the medium term and better monitoring of the effect produced by the recovery plan. Without Spain and the UK the relation goes up to -0,63 versus -0,40 of the entire sample. This can be explained by the fact that Spain and UK have been affected by the worst European economic situation that led to a deterioration of the structural primary balance and, as a consequence, an increasing of the debt level. Fortunately, the debt level starting point was under the European average. We want to take

distance from the proposition that fiscal governance is pre-conditioned to reach budget balance, but good fiscal governance seems to be a distinctive competence of the countries that better manage economic crisis in the medium term. The problems to be solved in the future by the Euro group are as follows:

1. how national fiscal governance is linked to the European one,
2. how national political leadership leaves part of its power to European political institutions, and
3. how it is possible to define real European economic and monetary policies that require more power from the executive such as the European Commission, European Central Bank and Eurostat and reduce the role played by national political leaders.

### CONCLUSION

The identification of fiscal governance as a cornerstone of the quality of public finance led the European Commission to carry out a broad analysis in which it defined indexes representing three of four dimensions of fiscal governance. This fragmentation in the results created the need for a general overview of the aspects under investigation, and therefore we developed an overall index of fiscal governance based on the European Commission's findings.

The FG Index is composed of three different databases, which we revised and re-edited to obtain the most relevant information, and then analyzed the correlation between single characteristics of fiscal governance dimensions. From the analysis that emerged, four characteristics (enforcement bodies, noncompliance action, media visibility and performance budgeting) showed several correlations among them. This evidence led us to exclude these characteristics in order to calculate the FG Index. The resulting FG Index was used to investigate the possible correlation between the fiscal governance profile in each country and the budget performance, from the start of the financial crisis year (2007) to the recovery year (2009). The results showed, in fact, a positive connection between the level of fiscal governance in the member states and a surplus in the period concerned.

Moreover, the implementation of fiscal governance procedure appears not much developed at national level. This fact can damage the fiscal consolidation of the European countries and make the

European control process more evanescent. In particular, the question of the reliability of long term structural adjustment path and the political commitment on the fixed target, arose after the Greek crisis and the recent question of the sovereign debt crisis that involved, in particular, Italy. The solution of these involved the national budget institutions and their integration with the European financial planning system.

In this regard, the European Commission has for a long time stated that “well designed fiscal rules and institutions support the attainment of sustainable budgetary positions and contribute to the avoidance of pro-cyclical policies in good time” (European Commission, 2006, p. 8). In fact, the effectiveness of the preventive arm requires an evaluation of the quality and efficiency of public expenditure. Indeed, it seems to be important an integration between multi annual programs presented in the SCPs and the national budgeting procedure. This debate gave evidence of how the goal of the European strategy goes through adequate coordination process. In this picture the improvement of the Quality of Public Finance, and, consequently, of the Fiscal Governance, requires the definition of the links among macro-economic planning, financial planning and budgeting procedure, both at the European and national level. Whereas the accent on the quantitative data and accounting fiscal rules focused the question on statistical coordination, along with QPF issue emerged new questions related both to the European economic and strategic coordination and budgeting procedure. The need of tools that clarify the relationship between public finance and economy interdependences, and between European policy and national measures lead to a complex redefinition of the system. The modernization process startup came by the European Commission on September 2010 with the presentation of the s.c. “six packs” and closed, after political debate on the 23 of November 2011. This happened even though the introduction of the European Semester, that reunified the strategic policy document (National Reform Program, NRP) and the accounting data (Stability Convergence Program, SCP), has operated since the 2011.

Also the task force on economic governance, established March 2010 (European Council Secretariat, 2010), states that in the context of harmonization all national fiscal framework should meet the requirements in the following areas no later than 2013: 1) public

accounting system and statistics; 2) numerical fiscal rules; 3) forecasting system; 4) effective medium term budgetary framework; 5) adequate coverage of the general government finances. Above these minimum requirements, a set of non-binding additional standard should be agreed upon, covering notably the use of top down budgetary process, fiscal rules and the role of fiscal council. That is, as our fiscal governance index shows, that the national fiscal governance has to be improved. In sum, the new fiscal governance refers to the following areas (Ecofin Council, 2011):

1. In the preventive arm of the pact has been introduced an expenditure benchmark to enforce medium term objectives. This fact implies that annual expenditure growth should not exceed a reference medium term rate of GDP growth;
2. In the corrective arm of the pact (EDP), has been placed attention to debt criterion, with member states whose debt exceeds 60% of GDP required to undertake policy to reduce it with the rule of one-twentieth;
3. Even in the corrective arm, new and automatic financial sanctions are introduced;
4. A Directive has been set out to ensure that the objectives of the EU budgetary coordination are reflected in the member states' budgetary framework. In line with the task force's recommendation, with the aim to harmonize accounting, statistical and forecasting practices;
5. Surveillance of the economic policy has been reinforced with the introduction of the "excessive imbalance procedure" based on the scoreboard of economic indicators.

However, the six packs were not enough. The crisis of the sovereign debt pushes for further enforcement of fiscal governance. The European Commission has proposed two new regulations aim to be effective in 2012, in order to enhance surveillance of Euro area member states, especially of those subject to an EDP (European Commission, 2011a); and for enhanced surveillance of Euro area member states that are experiencing severe financial disturbance or require financial assistance (European Commission, 2011b). In particular the former regulation improves the fiscal governance and defines new rules: a) member states should define a common budgetary timeline; b) member states shall have in place (preferably

constitutional) numerical fiscal rules based on the budget balance; c) member states shall have in place an independent fiscal council for monitoring the implementation of fiscal rules; d) annually, by October 15, member states shall submit to the European Commission and the Euro group a draft of budgetary plan, before the National Parliament discussion; e) the draft budgetary plan has to be based on an independent macro economic growth forecast

The sudden change of the European policy framework highlights the importance and the topicality of the issue we are debating, even though we facing a serious delay of the European institutions in the decision- making process in respect to the evidence showed by the European Commission and academic analysis. In addition, the recent Fiscal Governance change affects the new financial and economic planning that will be implemented by European countries in 2012-2013, and, only one year later we should evaluate the effectiveness of such policy.

This work should be taken as a starting point for further analysis, since it points out several issues that need to be taken into consideration. First, there is the necessity to have a unique database; this would solve all the homogeneity problems related to the year of publication, time of the survey and any possible discrepancy between different interpretations of the same characteristic. Furthermore, new data should be compiled, because since the last official survey several important changes have happened, for example: the impact of the crisis, the reform of the Stability and Growth Pact, and the introduction of the European Semester, as a new tool for better economic and fiscal governance. The second relevant improvement, in order to obtain a sharper Fiscal Governance Index, should be the weighting of the characteristics composing each index. This will require the arrangement of a set of weights to be assigned, to discriminate between the different aspects composing fiscal governance. As the European Commission has already noted, enough theoretical background and modeling techniques to do so is not available; therefore, this will require considerable effort.

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