DO BUDGET INSTITUTIONS MATTER?
FISCAL CONSOLIDATION IN THE NEW EU MEMBER STATES

Carlos Mulas-Granados,[*] Jorge Onrubia[**] and Javier Salinas-Jiménez[***]

1   Introduction

On 1 May 2004, eight central and eastern European countries (Lithuania, Latvia, Estonia, the Czech Republic, Slovakia, Slovenia, Poland and Hungary) joined the European Union. Two small island states, Cyprus and Malta, were also incorporated, while two other countries belonging to the erstwhile zone of Soviet influence, Bulgaria and Romania, joined at the beginning of 2007.

Prior to achieving full membership, the majority of these countries had to implement difficult and intensive economic and institutional reforms, aimed at fulfilling the three principal requirements for their accession: to conclude and complete the transition to a market economy, to develop institutions favouring democracy and the defence of human rights, and to fully incorporate EU legislation.

A considerable part of the reforms undertaken by these countries were, in addition, related to their complete transition towards a market economy and their full integration into the EU internal market. Similarly, the majority of the new member states implemented economic and budgetary reforms aimed at progressively meeting the Maastricht criteria, with a view to future integration into the euro, an objective which has to date only been achieved by Slovenia.

Despite the efforts made, advances toward fiscal consolidation should be considered as somewhat modest. Most progress was made during the second half of the 1990s, in which the average public deficit fell from 4.6 to 2.4 per cent. Prior to accession, the public deficit rose, to then fall by a further percentage point at the end of the study period.

————————

[*]   Complutense University of Madrid.

[**]   Complutense University of Madrid.

Corresponding author: Jorge Onrubia. E-mail: jorge.onrubia@ccee.ucm.es

[***]   Institute for Fiscal Studies (Spain) and University of Extremadura.

The fiscal adjustments undertaken varied considerably between countries. On the revenue side, most made significant efforts to increase their public revenue, using two main strategies. One was the massive privatization of public companies inherited from the old planned economy model, while the second was the broadening of the taxable bases corresponding to previously established income taxes, in addition to the introduction of value added taxes, the improvement of tax collection systems and the implementation of intensive plans to combat tax evasion.

With regard to public expenditure, improvement proved difficult to achieve. The strong social pressures inherent in the transition from totalitarian states to democratic societies caused expenditure on public services to double, on average. In fact, in some cases, such as those of Latvia, Slovakia or Slovenia, social security reforms were minimal, despite the repeated recommendations of the European authorities (European Commission, 2001).

In conclusion, it should be emphasised that while some candidate countries consolidated their public finances to an acceptable degree, others still have important reforms pending. Furthermore, significant differences can be observed in the adjustment strategies designed and applied in the different states. Thus, while various countries, such as Bulgaria, decided to make shorter, sharper adjustments, others opted to implement them more slowly and gradually. In addition, it is clear that some countries, such as the Czech Republic or Slovakia, designed their consolidation processes on the basis of strategies which were generally aimed at improving revenue collection. Others, such as Hungary, Lithuania or Poland opted instead for expenditure-based adjustments.

In order to explain the differences observed in fiscal adjustment strategies, the literature has typically referred to institutional factors related to the forms of fiscal governance,[1] or to factors of a political and economic nature. From among the latter, the literature has almost invariably highlighted the influence of the economic cycle, the accumulated level of debt and the tone of monetary policy, together with the role of the electoral calendar, the ideology of the party in government and the degree of fragmentation in decision-making.[2]

Bearing in mind that the new EU member states underwent, from the 1990s onwards, their first phases of fiscal adjustment while simultaneously consolidating their transition to a market economy and configuring their budget institutions, we believe that a first approximation to the study of fiscal adjustments in these countries should give priority to the institutional approach, since institutional factors,

----

[1]   See Hallerberg (2004) for a review of the literature on fiscal institutions. In addition, see Hallerberg, Strauch and von Hagen (2004); von Hagen, Hallet and Strauch (2001); Persson and Tabellini (1999); and Hallerberg and von Hagen (1997).

[2]   See Mulas-Granados (2006) for a comprehensive review of the literature on fiscal adjustments, and for a systematic empirical analysis of the role that such factors have played in the fiscal adjustments of the EU-15. countries. See also Perotti and Kontopoulos (2002); Alesina, Cohen and Roubini (1992); Grilli, Masciandaro and Tabellini (1991); and Roubini and Sachs (1989).

predictably, were paramount in designing the various adjustment strategies throughout this period.

Consequently, the objective of the present study is to determine the influence that the recently reformed budgetary institutions in these countries may have had upon the results of budgetary consolidation, as observed in their public finances. Although these newly formed budgetary institutions may not yet be completely consolidated, we want to test if such "fresh" institutions have started to shape fiscal outcomes in new member states, as "old" EU-15 institutions did in the past. To answer this question, this article performs an empirical analysis of a sample of new EU member states (those who joined in 2004 and 2007) for the period 1993-2004.[3]

This article is structured as follows. Section 2 describes the most recent fiscal developments in the new member states. Section 3 analyses the budgetary processes which configure their fiscal institutions. Section 4 constructs the indexes associated with these budgetary institutions. Section 5 deals with the possible influence that political decentralization may have had on the budgetary institutions of these countries. Section 6 presents the econometric model, as well as the results of various estimations of the relationship between budgetary procedures and the levels of fiscal discipline achieved by the various countries considered. Finally, Section 7 provides a summary of the main results and a discussion of their most important implications.

2   Fiscal consolidation episodes in the new member states

This section analyses the budgetary consolidation episodes undertaken between 1993 and 2004 in the new EU member states. Tables 1 and 2 present descriptive statistics for the budget balance and the annual variation of public expenditure (both expressed as a percentage of GDP) for the countries studied.

As the tables show, while the average budget balance has remained stable, ranging from –2.5 to –4.2 per cent of GDP, important differences exist between the countries in the sample. Some of them, such as the Czech Republic, Bulgaria or Slovakia, have recorded budget deficits above 10 per cent of GDP, while others, such as Estonia, have experienced considerable surpluses in some financial years. This period reveals a continuous reduction of total public expenditure as a proportion of GDP between 1994 and 2004, with the exception of 1999 and 2002. Again, public expenditure behaviour is highly heterogeneous, with spending cuts above 10 percent of GDP in countries such as Slovakia, the Czech Republic and Bulgaria, and increases in this ratio above 5 percentage points in Lithuania, Slovakia and the Czech Republic.

Let us define fiscal adjustment episodes as those years in which the budget balance improved by at least 0.5 per cent of GDP with respect to the preceding

––––––––––

[3]   With the exception of Malta and Cyprus, due to their relatively small economic size and the lack of consistent budgetary data throughout the period selected.

Table 1

Public Finances in the New EU Member States, 1994-2004

Year	General Government Budget Balance *(average) (percent of GDP)*	Standard Deviation	Range (min/max)
1994	−2.9	3.8	From −8.3 (HUN) to 5.5 (EST)
1995	−3.8	4.0	From −13.4 (CZE) to 0.5 (EST)
1996	−4.2	3.9	From −13.3(BUL)a 0.3 (SLV)
1997	−2.5	2.7	From −6.2 (SLK) to 1.7 (EST)
1998	−2.4	2.2	From −5.4 (ROM) to 1.0 (BUL)
1999	−3.6	2.2	From −7.1 (SLK) to 0.1 (BUL)
2000	−3.5	3.3	From −12.3 (SLK) to −0.5(EST)
2001	−3.1	2.0	From −6.0 (SLK) to 0.3 (EST)
2002	−3.4	3.1	From −9.2 (HUN) to 1.3 (EST)
2003	−3.1	4.2	From −12.6 (CZE) to 3.1 (EST)
2004	−2.6	2.4	From −5.7 (POL) to 1.7 (BUL)

Year	Change in Public Expenditure *(average) (percent of GDP)*	Standard Deviation	Range (min/max)
1994	−2.5	2.8	From −21 (SLK) to 6.4 (LIT)
1995	−0.1	3.7	From −6.5 (HUN) to 6.9 (CZE)
1996	−0.7	5.0	From −11.6 (CZE) to 7.4 (SLK)
1997	−1.4	4.6	From −13.5 (BUL) to 3.5 (SLK)
1998	−0.1	2.8	From −4.2 (SLK) to 4.5 (LAT)
1999	0.5	2.1	From −3.9 (SLK) to 3.3 (EST)
2000	−0.8	3.1	From −4.5 (LIT) to 4.0 (SLV)
2001	−1.0	3.4	From −8.4 (SLK) to 3.1 (POL)
2002	0.2	1.6	From −1.3 (BUL) to 3.9 (HUN)
2003	−0.7	4.7	From −11.7 (SLK) to 7.6 (CZE)
2004	−0.3	3.1	From −7.8 (CZE) to 3.7 (POL)

Sources: Authors' compilation from AMECO Database (2005) and International Monetary Fund Reports.
Notes: All the figures refer to Public Administrations as a whole. BUL: Bulgaria; CZE: Czech Republic; EST: Estonia; HUN: Hungary; LAT: Latvia; LIT: Lithuania; POL: Poland; ROM: Romania; SKA: Slovakia; SLV: Slovenia.

year.[4] Table 2 shows that, throughout the period, important fiscal adjustment episodes occurred, of varying duration and intensity among countries. Together with the variation in terms of simple budget balance, this table also displays the figures for the primary deficit or surplus and the reductions in public debt, all expressed in terms of GDP.

As the most important studies in this field indicate, any government faced with the necessity of reducing its budget deficit must design a four-dimensional fiscal adjustment strategy.[5] Thus, it must decide: 1) the size of the adjustment it wishes to undertake; 2) when the adjustment is to begin; 3) its expected duration; and 4) which budget items will be affected (*i.e.* the composition of the adjustment).

The size and duration of fiscal consolidations are very important, since short and intensive consolidations may produce a recession. This occurs when the private sector does not compensate quickly enough for the reduction in demand caused by a restrictive fiscal policy. By contrast, if fiscal consolidations are slow and sustained they may have extremely negative political results for the government responsible. Additionally, the duration of the consolidations is closely linked to their composition, insofar as adjustments which are fundamentally based on cuts in the government wage bill and public transfers are expected to last longer and be more successful than those based on an increase in public revenue and a reduction in public investment (Alesina and Ardagna, 1998).

To reduce the public deficit, any government has five options: 1) to increase public revenue more than public expenditure: 2) to increase public revenue and freeze expenditure; 3) to increase public revenue and reduce expenditure; 4) to freeze public revenue and reduce expenditure; and 5) to reduce revenue less than expenditure. Basically, consolidations founded on the first two adjustment strategies may be called "revenue-based adjustments", and those based on the last two "expenditure-based adjustments". The third possibility is, in reality, an intermediate alternative, and thus may be termed a "mixed strategy".

––––––––––

[4]   The threshold for the selection of adjustment episodes varies in the literature, ranging from improvements in the budgetary balance of at least 0.5 per cent of GDP (Gupta, Clements, Baldacci and Mulas-Granados, 2005) to improvements of 1.5 per cent of GDP (von Hagen, Hallet and Strauch, 2001). Following the most important studies of this question, we have defined fiscal consolidation episodes as those where the amelioration of the budget balance was at least 0.5 per cent of GDP for two consecutive years. Most OECD studies use cyclically-adjusted figures to select adjustment episodes, and they calculate the cyclical component based on the trend output gap. Only Afonso *et al.* (2006) has applied the same technique to new member states. Nevertheless, other authors as Zápal *et al.* (2006) avoid using cyclically-adjusted data given the specific characteristics of these countries. We are also reluctant to calculate cyclically-adjusted figures based on trend figures calculated with the HP-filter due to two factors: first, these economies came from socialist systems and the initial shock in their output at the beginning of the nineties would potentially bias any trend estimation for the first years in the sample; and second, if you only focus on the mid-nineties onwards, the time-series of data are too short to apply the HP-technique without biasing the estimations for the last 3 years (which in this case represent an important part of the sample). Therefore, we follow Zápal (2006) and select adjustment episodes in New Member States using non-cyclically-adjusted data, and we will later use the GDP growth as a right-hand side variable to control the effect that output has on fiscal variables.

[5]   Giavazzi and Pagano (1990); Alesina and Perotti (1995); Alesina and Ardagna (1998); von Hagen, Hallet and Strauch (2001); and Mulas-Granados (2006).

Table 2

Fiscal Adjustment Episodes - Type and Intensity According to Criteria
(percent of GDP)

Country		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bulgaria	TYPE				2	1						3
	▽ GGBB				10.7	3.6				0.2	0.2	2.1
	▽ GGPBB	3.6				0.1					0.1	1.8
	▽ GGD		51.6		44.8	21.9		6.9	9.9	13.6	7.9	4.0
Czech Rep.	TYPE	2		2	3		3					2
	▽ GGBB	18.8		10.3	0.7		1.3	0.1				7.8
	▽ GGPBB	18.5		10.4	0.7		1.1	0.0				7.7
	▽ GGD	1.6	3.2	2.0								
Estonia	TYPE				2			2	2	1	3	
	▽ GGBB				3.4			3.3	0.8	1.1	1.7	
	▽ GGPBB				3.4			3.2	0.7	1.2	1.7	
	▽ GGD	2.3	1.7	0.3	1.2	0.7		1.3	0.3			0.5
Hungary	TYPE		2	2				1			2	2
	▽ GGBB		3.2	2.0		0.4		1.7			3.0	0.8
	▽ GGPBB	0.8	5.6	1.5	0.2			0.4			3.1	1.0
	▽ GGD	3.1	2.2	12.6	7.3	2.3	0.7	5.5	1.9			
Latvia	TYPE			2	1			2	2		1	
	▽ GGBB			1.6	1.9			2.1	0.7		1.2	
	▽ GGPBB			1.9	1.3			2.3	0.7		1.2	
	▽ GGD	0.5	1.1	1.1	1.6					0.8		
Lithuania	TYPE		1		1			2	2	2		
	▽ GGBB		1.7		2.4			3.0	0.6	0.5		
	▽ GGPBB		1.9		2.3			3.2	0.5	0.3		
	▽ GGD	0.1		3.5					0.9	0.5	1.0	0.3
Poland	TYPE					2						
	▽ GGBB	0.4			0.2	2.4		0.4			0.3	
	▽ GGPBB	3.1			0.1		0.1	0.5			0.5	
	▽ GGD	21.2	16.9	2.9	1.8	5.2		1.5	1.0			
Romania	TYPE						1		2	2		1
	▽ GGBB						1.8		0.8	0.7	0.3	0.6
	▽ GGPBB				1.6	0.8	2.4					0.1
	▽ GGD					0.5		0.6	2.5	0.6	0.6	
Slovakia	TYPE	2	2		1	2			2		2	
	▽ GGBB	25.1	5.3		1.2	2.5			6.3	0.3	1.9	
	▽ GGPBB	25.7	4.2		0.9	2.7			6.2		0.8	
	▽ GGD	3.5	1.4						1.2	5.4	0.7	
Slovenia	TYPE								3			
	▽ GGBB		0.2	0.3		0.4	0.2		0.7	0.4	0.4	
	▽ GGPBB			0.4		0.5	0.3		0.7	0.3	0.2	
	▽ GGD				1.2						0.1	

Country		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Cyprus	TYPE	1				1		1				2
	▽ GGBB	1.1				1.1		2.0	0.1			2.1
	▽ GGPBB	1.2						2.3	0.1			2.1
	▽ GGD	4.9	1.7									
Malta	TYPE		3				1	3		1		1
	▽ GGBB		1.1				1.9	2.2		0.7		5.3
	▽ GGPBB		1.1				2.4	2.6		0.9		5.6
	▽ GGD											

Source: Own elaboration.
TYPE of Adjustment: 1. Fiscal adjustment (+0.5 per cent GDP) based on an increase in public revenue; 2. Fiscal adjustment (+0.5 per cent GDP) based on public expenditure cuts; 3. Mixed fiscal adjustment (+0.5 per cent GDP) (neither the increase in public revenue nor public expenditure cuts explain by themselves >2/3 of the adjustment).
▽ GGBB: Annual change in the General Government Budget Balance (in percent of GDP, net lending (+) or net borrowing (–) General Government. ESA 95).
▽ GGPBB: Annual change in the General Government Primary Budget Balance (in percent of GDP; net lending/borrowing minus interest payment. ESA 95)
▽ GGD: Annual change in the General Government Debt (in percent of GDP. ESA 1995).

Table 3

Characteristics of the Fiscal Adjustment Processes, 1994-2004

Country	Period	Duration	Size	Composition
Bulgaria	1997-1998	2	14.3	Based on expenditure (1st year) and on revenue (2nd year)
Czech Republic	1996-1997	2	11.0	Based on expenditure (1st year) and mixed (2nd year)
Estonia	2000–2003	4	8.0	Based on expenditure (1st and 2nd year), on income (3rd year) and mixed (4th year)
Hungary	1995-1996	2	5.2	Based on expenditure
	2003-2004	2	3.8	Based on expenditure
Latvia	1996–1997	2	3.5	Based on expenditure (1st year) and on revenue (2nd year)
	2000-2001	2	2.8	Based on expenditure
Lithuania	2000–2002	3	4.1	Based on expenditure
Poland		0		
Romania	2001-2002	2	1.5	Based on expenditure
Slovakia	1994-1995	2	30.4	Based on expenditure
	1997–1998	2	3.7	Based on expenditure (1st year) and on revenue (2nd year)
Slovenia		0		
Total/average	11 episodes	2.27 years	8.0	

Source: Own elaboration.
Note: in terms of annual reduction of public deficit greater than 0.5 of GDP for at least two years.

Table 2 shows that between 1994 and 2004 eleven fiscal adjustment episodes can be identified in our sample (thirteen including Malta) when the criterion adopted is the annual reduction of public deficit greater than 0.5 of GDP for at least two years. Table 3 shows that Slovakia and Latvia performed two adjustments, while the remaining countries only undertook one. When cross-country comparisons are made, these adjustment episodes differed in terms of timing, duration, size and comparison. The majority of adjustment episodes lasted for only two years, with the exceptions of Estonia (four years) and Lithuania (three years). On average, such adjustments reduced the deficit by 8.0 percentage points of GDP, although if we exclude the extreme value (30.4 per cent) displayed by Slovakia in the early years of the period, this average value falls to 5.8 per cent. However, dispersion is considerable within the sample (the standard deviation is 5.0), as both intensive and more modest adjustment processes existed.

Finally, it must be emphasised that the majority of the 40 annual adjustment in our sample were expenditure-based (25 years, or 62.5 per cent of the total), while 10 (25 per cent) were revenue-based, and only 5 (12.5 per cent) followed a mixed strategy. If we focus our attention on the 11 consolidation episodes (including at least two consecutive years) we observe instead 6 pure expenditure-based adjustments. The five remaining episodes includes different combinations. While Bulgaria (1997-98), Latvia (1996-97) and Slovakia (1997-98) combine expenditure-based adjustments in the first year with revenue-based adjustments in the second year, the Czech Republic (1996-97) firstly adopted an adjustment based on expenditure and after one mixed. In the longest episode (2000-03), Estonia combined the three types of fiscal adjustment.

Note that selecting episodes according to the criteria that we have specified above turns out to provide very similar results to those reported by Zápal *et al.* (2006), although they use a slightly different sample and definition of adjustment episodes. Any how, this experience of fiscal consolidation in the new member states differs substantially from the experience of fiscal adjustments in the EU-15, where most consolidation episodes were revenue-based rather than expenditure-based (Mulas-Granados, 2006). The differences in economic and welfare state development between both groups of countries probably account for the observed divergence in fiscal adjustment strategies (Purfield, 2003).

3   Fiscal institutions in the new member states

The most relevant studies in the field of budget institutions identify three consecutive phases in the annual budget process:[6] the budget planning phase, the discussion and parliamentary approval phase and the execution phase, which includes possible amendments to the budget approved by the

―――――――

[6]   Von Hagen (1992); von Hagen and Harden (1994); Halleberg *et al.* (2001); Gleich (2003) and Yalloutinen (2004).

Parliament.[7] Each of these phases includes the main procedures that affect the configuration of the budget institution of each country. The allocation of competencies and the way in which they are exercised by the Finance Minister, the executive and the legislature are also crucial aspects of the budget institution. These characteristics will be quantitatively evaluated, using the indexes proposed in the following section.

In the planning and design phase the fundamental role is played by the executive. From the construction of the pluriannual macroeconomic and budgetary frameworks to the allocation of funds, the decision-making capacity lies between the Finance Minister and the collegial body to which he/she belongs, *i.e.* the Council of Ministers. The competencies allocated in this phase and, complementarily, the residual decision-making powers, reflect the different options for institutional design which, at their extremes, range from a strong Finance Minister (*i.e.* with the power to lead the budget project presented to Parliament) to a collegial system of negotiation. In this phase, technical instruments and tax regulations which favour fiscal discipline can be incorporated into the budget institution, which is especially important for those new member states whose objective is to join EMU. Thus, the design of Pre-Accession Economic Programmes, similar to the Stability and Convergence Programmes required of the euro-countries, offers a test of the "quality" of the instruments incorporated into the budget process.

In the discussion and parliamentary approval phase, the relevant agents are, by definition, the political parties. Nevertheless, we cannot ignore the residual power which the parliamentary system gives to the executive and, in particular, to the Finance Minister. Thus, the evaluation of the budget process should consider the effective capacity of the Finance Minister to maintain, following its debate in Parliament, the project as initially presented.

In the execution phase, the predominant role is once again played by the Finance Minister. An accurate description of the budget institution must take into account his/her powers to control the execution of the budgetary allocations, which may even include the establishment of spending limits. In fact, in recent decades the literature regarding fiscal discipline has demonstrated the importance of this phase, since it permits last-minute amendments to the budget approved by Parliament. The Finance Minister's veto power over Parliament's proposals for increases in budget allocations and transfers between budgetary items has proved essential to guarantee fiscal discipline in the medium term.[8]

––––––––––

[7] The literature on the institutional aspects of fiscal consolidations does not usually consider the control of budget execution as a specific phase. Although from a macroeconomic point of view this is an essential function within budget management, its influence upon the development of fiscal policy lacks sufficient weight for it to be included in this approximation.

[8] The interactions between the decision-making powers of the Finance Minister and of Parliament become strongly evident in this phase of execution. On occasion, the concentration of the competences of Parliament with regard to budgetary amendments has been argued to be positive. However, the experience of the last two decades has, in many countries, demonstrated the importance of the Finance Minister's power to control the budget. The principal explanation is that the assumption of responsibility for the financial panorama by Members of Parliament is hardly credible, given that they are not judged at the polls, at least in the short term, for the failures of budgetary policy.

Table 4

Budgetary Planning and Programming Phase - Values of Variables, by Country

Pluriannual Fiscal Frameworks

Country	A.1.1 Type of Regulation	A.1.2 Time Horizon	A.1.3 Responsible	A.1.4 Scope	A.1.5. Review	A.1.6 Extra Budgetary Funds	A.1.7 Type of Pluriannual Budgeting
Czech Republic	2	1	2	2	3	1	1
Estonia	2	2	2	2	3	3	2
Latvia	2	3	2	2	3	2	2
Lithuania	2	4	2	1	3	2	2
Hungary	2	4	3	3	3	2	1
Poland	2	4	1	3	3	2	2
Slovenia	2	3	2	3	3	1	2
Slovakia	2	4	1	3	3	2	1
Romania	2	4	2	3	3	2	1
Bulgaria	2	4	2	3	3	2	2

Fiscal Rules

Country	A.2.1 Contents	A.2.2 Limits	A.2.3 Adjustment of Inflation	A.2.4 Binding Limits	A.2.5 Punitive Mechanisms	A.2.6 Financial Limits
Czech Republic	0.5	1	2	1.5	0	0
Estonia	1.5	1	2	1.5	0	1
Latvia	3	1	2	1.5	0	0
Lithuania	3	0 – 1 (99)	2	1.5	0	0
Hungary	3.5	0	2	1.5	0	0
Poland	2	0 – 1 (00)	1	1.5	0	1
Slovenia	1.5	1	0	1.5	0	1
Slovakia	3	1	2	1	0	0
Romania	1.5	0 – 1 (03)	2	1.5	0	0
Bulgaria	1.5	0 – 2 (99)	1	2.5	0	0

Country	Pluriannual Budgeting			Role of Finance Minister in Planning and Budgeting			
	A.3.1	A.3.2	A.3.3	A.4.1	A.4.2	A.4.3	A.4.4
	Integration with PFF	Review of Deviations	Joint Designed	Proposal of PFF by FM	Negotiation in Cabinet	Resolution of Disagreements	Leadership of the FM
Czech Republic	1	0	2	3	3	0	1
Estonia	2	1	3	3	3	0	2
Latvia	2	0	1	3	1	1	1
Lithuania	2	2	2	1 – 2 (00)	3 – 2 (00)	0	2
Hungary	2	2	3	2	4 – 2 (98) – 3 (03)	1	3 – 1 (98)
Poland	2	0	3	1 – 2 (99)	3	1	2
Slovenia	1	0	3	3	4	1	2
Slovakia	2	1	1	2	2	0	1
Rumania	2	1	0.5	1 – 3 (03)	3	0	2 – 3 (00)
Bulgaria	2	2	2	1 – 3 (99)	3	0	1

Table 5

Parliamentary Discussion and Approval Phase - Values of the Variables, by Country

Country	Role of Parliament in the Legislative Approval Phase					
	B.1.1 Power to Amend	B.1.2 Limits to Amend	B.1.3 Volume of Modifications	B.1.4 Voting Overall Bill	B.1.5 Approval Time Limit	B.1.6 Budget Applied (Non-approval)
Czech Republic	0	1	1	1	0	1 – 0 (01)
Estonia	0	2	3	0	1	0
Latvia	0	2	0	0	0	0
Lithuania	0	2	1	0	1	0
Hungary	0	1	4	0	1	1
Poland	0	0 – 1 (99)	0	0	0	1
Slovenia	0	3	3	1	1	0
Slovakia	0	0	0	0	1	1
Rumania	0	0 – 1 (03)	2	0	1	0 – 1 (03)
Bulgaria	0	0	4	1	1	0

Note: The year in which the variable modifies its previous value is given in parentheses.
Source: Own elaboration, using the information provided by the websites of the institutions of each country and by the survey performed by Yalloutinen (2004).

Table 6

Budget Execution Phase - Values of the Variables, by Country

Country	The Role of the Finance Minister in the Budget Execution Phase					
	C.1.1	C.1.2	C.1.3	C.1.4	C.1.5	C.1.6
	Capacity to Reduce Allocations	Authorization for Disposition of Funds	Capacity to Limit Payments	Possibility of Making Transfers	Possibility of Introducing Modifications	Incorporation of Unspent Funds
Czech Republic	0	0	1	1	0	0 – 1 (01)
Estonia	1	1	1	3	0	1
Latvia	2	0	0	3	0	1
Lithuania	0	1	0	2.5	1	2 – 1 (01)
Hungary	0	0	0	2.5	2	0
Poland	1	1	1	2 – 3 (99)	0	1
Slovenia	0	0	1	1.5	2	2
Slovakia	1	0	1	2	0	1
Rumania	0	1	0	2.5	0	2
Bulgaria	2	1	1	2	0	2

Note: The year in which the variable modifies its previous value is given in parentheses.
Source: Own elaboration, using the information provided by the websites of the institutions of each country and by the survey performed by Yalloutinen (2004).

Appendix I presents an ordered list of the different variables considered in each of the three stages of the budget process. Tables 4, 5 and 6 show the values taken by all these variables for the countries studied. The existence of significant changes in the values caused by important reforms is marked with a specific reference to the year in which the reform took place.

4   Indexes for the budget institutions in the new member states

Since the pioneering work by von Hagen (1992), various studies have attempted to gather together the qualitative aspects which define budget institutions, understood in their broadest sense, in a numerical index or indexes. Allowing for (sometimes considerable) differences, all the proposals for this type of index are based on the systematisation of the information available regarding the characteristics and functioning of all those processes, rules, agreements and protocols which govern a given country's budget process. Thus, most studies have

gathered together in their indexes all the information available for the different phases of the budget process.

Following and expending this line of research, we propose a series of indexes which incorporate into the essential formulation of von Hagen's (1992) indexes some additional elements that we believe may be relevant to understand the role of the budget institution in the countries studied.

Firstly, we define three indexes, which capture the three phases of the budget process: the budgetary planning and programming phase, the parliamentary discussion and approval phase, and the execution phase. These three indexes are then aggregated into an overall index which allows us to establish a ranking of budget institutions. In this aggregation, the three phases considered are weighted equally. In contrast to the proposal made by Gleich (2003), we have opted for an equal distribution of the weights assigned to each process because we believe that this reduces the discretionary bias which the configuration of this type of qualitative indexes inherently generates. Furthermore, we believe there exists no justification for placing more importance upon certain aspects of the budget process, since all information is equally relevant for our analysis.

To standardise this weight, we decided to linearly distribute the value of 10 points assigned to each of the three principal budget phases among the total variables, each of which had previously been equalised at the maximum value they could potentially attain, so that they contributed equally to each of the procedures included for each phase. The corresponding coefficient of each variable is then applied directly to the values which comprise the established quantification range. These ranges adopt higher or lower values, depending on the greater or lesser influence which each has upon budgetary discipline.

With regard to the values of each variable, we tried to reduce their variability. As a general rule, in those cases with dichotomic values, the pair 1-0 was chosen if the worst behaviour is in direct contradiction to budgetary discipline, and a 2-1 pair type if the worst behaviour is not directly opposed to this essential aspect of fiscal policy. For those situations where we believe that discrimination is significant, we introduced intermediate values, even if they exceeded 2. Whatever the case, our aim was to minimise the discretionality associated to an excessive number of categories for each variable, or by the unjustified differentiation of the maximum values that these may attain.

On the basis of these criteria, we define the following indexes for each process:

a) Institutional index for the design phase (budget planning and programming):

$$I_t^{DES} = \frac{1}{4}\left(\sum_{i=1}^{7} v_{i}^{PFF}{}_t \cdot w_{v_i^{PFF}} + \sum_{i=1}^{6} v_{i}^{FR}{}_t \cdot w_{v_i^{FR}} + \sum_{i=1}^{3} v_{i}^{INT}{}_t \cdot w_{v_i^{INT}} + \sum_{i=1}^{4} v_{i}^{ROLFM}{}_t \cdot w_{v_i^{ROLFM}} \right) \quad (1)$$

where v_i is each of the variables which intervene in the four sub-processes of the first phase of budget design (*PFF* for the pluriannual fiscal frameworks, *FR* for the

fiscal rules, *INT* for the integration between the pluriannual frameworks and annual budgeting, and *ROLFM* for the role played by the Finance Minister in this phase). While $w(v_i)$ represents the weighting assigned to each variable within these four sub-processes, so that the sum of weights equals 10 if all the variables take their maximum value. The weight established for each of the four sub-processes is identical;

b) Institutional index of the parliamentary discussion and approval phase:

$$I_t^{APPR} = \sum_{i=1}^{6} v_i^{APPR}{}_t \cdot w_{v_i^{APPR}} \tag{2}$$

where the weightings $w(v_i)^{APPR}$ assign the same weights to the six variables;

c) Institutional index of the budget execution phase:

$$I_t^{EXE} = \sum_{i=1}^{6} v_i^{EXE}{}_t \cdot w_{v_i^{EXE}} \tag{3}$$

in which the weights assigned to the six variables considered, $w(v_i)^{EXE}$, are equal. The values of the weightings incorporated into each of the processes we have just defined are included in the tables of Annex I.

Tables 7 and 8 display the quantification obtained for the three indexes proposed and for the whole sample. Table 7 offers information for the overall index, which results from the aggregation of the three basic indexes, each weighted at 1/3, while Table 8 disaggregates the index corresponding to the approval phase into the two indices contemplated:[9]

$$I_t^{BPP} = \frac{1}{3}\left(\sum_{i=1}^{7} v_i^{PFF}{}_t \cdot w_{v_i^{PFF}} + \sum_{i=1}^{6} v_i^{FR}{}_t \cdot w_{v_i^{FR}} + \sum_{i=1}^{3} v_i^{INT}{}_t \cdot w_{v_i^{INT}} \right) \tag{4}$$

$$I_t^{ROLFM} = \sum_{i=1}^{7} v_i^{ROLFM}{}_t \cdot w_{v_i^{ROLFM}} \tag{5}$$

Table 9 shows the ranking of the ten countries in our sample for the two alternative indexes. The number 1 corresponds to the maximum value computed in the corresponding index and represents the governance model of the budget institution which, in accordance with the criteria established, most favours fiscal discipline. Insofar as our two alternative indexes have been constructed on the basis of the concept of "the decision-making power of the Finance Minister", this maximum value reflects the budget institution design with which the Finance Minister feels strongest. This table also shows similar rankings to those obtained by Gleich (2003) and Yalloutinen (2004).

─────────

[9] To calculate the overall index in this second alternative, we have assigned an identical weight (0.25) to the four principal indices examined.

Table 7

Values of the Indices Defining the Budget Institution, by Country (Alternative 1)

Country	Basic Indices			Global
	INDEX(1)(DES)	INDEX(1)(APPR)	INDEX(1)(EXE)	INDEX(1)
Czech Republic	4.40	4.30 – 2.64 (01)	2.22 – 3.06 (01)	3.64 – 3.37(01)
Estonia	6.69	4.03	6.67	5,79
Latvia	5.53	1.11	4.17	3,60
Lithuania	5.99 – 6.20 (99)	3.19	5.56 – 4.72 (01)	4.91 – 4.98(99) – 4.70 (01)
Hungary	7.70 – 6.97 (98)	5.56	3.06	5.44 – 5.19(98) – 5.25(03)
Poland	6.28 – 6.44 (99) – 6.64 (00)	1.67 – 2.22 (99)	6.11 – 6.67 (99)	4.69 – 5.11(99) – 5.18 (00)
Slovenia	6.19	6.25	5.83	6,09
Slovakia	5.22	3.33	4.44	4,33
Romania	5.12 – 5.32 (00) – 5.85 (03)	2.50 – 4.72 (03)	4.72	4.11 – 4.18(00) – 5.10 (03)
Bulgaria	5.79 – 6.52 (99)	5.00	7.78	6.19 – 6.43 (99)

Note: The year in which the variable modifies its previous value is given in parentheses.
Source: Authors' compilation, using the information provided by the websites of the institutions of each country and by the survey performed by Yalloutinen (2004).

Table 8

Values of the Indices Defining the Budget Institution, by Country (Alternative 2)

Country	Basic Indices				Global
	INDEX(2) (BPP)	INDEX(2) (ROLFM)	INDEX(2) (APPR)	INDEX(2) (EXE)	INDEX(2)
Czech Republic	4.34	4.58	4.31 – 2.64 (01)	2.22 – 3.06 (01)	3.86 - 3.65 (01)
Estonia	7.11	5.42	4.03	6.67	5.81
Latvia	5.43	5.83	1.11	4.17	4.14
Lithuania	6.59 – 6.87 (99)	4.17	3.19	5.56 – 4.72 (01)	4.88 – 4.95 (99) – 4.74 (01)
Hungary	7.35	8.75 – 5.83 (98) – 6.46 (03)	5.56	3.06	6.18 – 5.45 (98) – 5.61 (03)
Poland	6.15 - 6.43 (00)	6.67 – 7.29 (99)	1.67 – 2.22 (99)	6.11 – 6.67 (99)	5.15 – 5.58 (99) – 5.65 (00)
Slovenia	5.41	8.54	6.25	5.83	6.51
Slovakia	5.85	3.33	3.33	4.44	4.24
Romania	5.43 – 5.71 (03)	4.17 – 5.00 (00) – 6.25 (03)	2.50 – 4.72 (03)	4.72	4.21 – 4.41(00) – 5.35(03)
Bulgaria	6.61 – 7.17 (99)	3.33 – 4.58 (99)	5.00	7.78	5.68 – 6.13 (99)

Note: The year in which the variable modifies its previous value is given in parentheses.
Source: Authors' compilation, using the information provided by the websites of the institutions of each country and by the survey performed by Yalloutinen (2004).

Table 9

Ranking of Indices Evaluating the Budget Institution

Country	INDEX[1]	INDEX[2]	Gleich Index	Yalloutinen Index
Czech Republic	9	10	5	10
Estonia	3	3	1	6
Latvia	10	9	2	7
Lithuania	5	7	6	8
Hungary	4	4	9	2
Poland	6	5	7	5
Slovenia	2	1	3	1
Slovakia	7	8	4	8
Romania	8	6	10	6
Bulgaria	1	2	8	3

Note:
[1] In those countries displaying various values, the average weighted value has been calculated, according to the number of years.
[2] The ranking of the Gleich and Yalloutinen indices is that established by the authors in their studies.

As can be observed, there are important similarities between the three rankings, especially in the case of our second ranking and that of Yalloutinen (2004). There are also some similarities with the ranking by Gleich (2003), especially if we exclude the cases of the Czech Republic, Hungary, Latvia and Bulgaria. Our indexes place the Czech Republic in the penultimate and final position, respectively (as in Yalloutinen's study), while Gleich's work places them in an intermediate position. Similar differences apply for the other countries, although none is particularly striking.

Using the information supplied by our principal indexes, we test whether the characterisation of each country's budget institution matches the prediction made in the previous section regarding the form of governance of the budget process. On the one hand, as shown in Table 4, Slovenia and Hungary are the two countries whose institutional variables clearly behave as predicted by the delegation approach. If we observe the role played by the Finance Minister, not only in the design phase (Table 4), but also in the phases of parliamentary approval (Table 5) and execution (Table 6), it is evident that both countries are paradigmatic examples of the

delegation approach. This is so because the most important variables that determine the "strong" role of the Finance Minister are present in both countries, and coincide with those which require the cession of authority characteristic of the delegation model. Estonia and Lithuania also display values fairly representative of the delegation model, although it seems that their electoral systems have forced them to adopt certain typical features of the compromise model. Romania, since the significant reforms of the year 2000 and, above all, 2003, may also be considered to be in transition towards the delegation approach.

At the other extreme are countries such as Estonia, which have been immersed in electoral processes resulting in continuous pacts to form coalition governments, thereby generating fiscal processes very close to the compromise approach. The Czech Republic and Poland are two other cases in which the role of the Finance Minister has been largely conditioned by the formation of alliances for government. In the remaining countries, the initial instability of their political systems have produced characteristics typical of what we define as the "feudal" model, with highly fragmented scenarios of budgetary decision-making and difficulties in taking into account the long term consequences of fiscal policy decisions.

Whatever the case, it must be remembered that our study has concentrated on a set of Eastern and Central European countries which have all emerged from the former Soviet bloc. This has given rise to the rapid introduction of democratic political institutions and the construction, practically *ex novo*, of a public sector based on principles and criteria which have prevailed for many decades in developed market economy countries. Thus, the institutional framework of these countries is an evolutionary one, which prevents us from undertaking a characterisation as robust as that of other research, notably the recent study performed by Hallerberg, Strauch and von Hagen (2004) for the 15 countries which were members of the European Union prior to its widening in May 2005.

As time goes by, this exercise will become more robust. But we nevertheless believe that these informational weaknesses, related to the ongoing process of institution building in the new member states, must not impede attempts to understand the effect that these newly born institutions have had on the fiscal outcomes of the last decade.

5   The impact of decentralisation on fiscal policy

The influence of public sector decentralisation on fiscal outcomes at the national level is undeniable and has been systematically confirmed in empirical studies. As a consequence, most scholars in the field affirm that the adoption of fiscal rules capable of coordinating the fiscal policy of the various levels of government is crucial for budgetary discipline (Balassone, Franco and Zotteri, 2003, 2004).

In spite of this evidence, most new member states where decentralisation of spending has taken place have not yet coordinated their fiscal policies between the different levels of government. For example, in the Czech Republic there exists no specific legal rule to coordinate the distinct levels of government with spending capacities. However, the national government retains control over the revenue of regional governments, insofar as the latter are substantially dependent upon transfers from the central government; local governments, in turn, must inform the central government every six months of the evolution of the budget. In addition, although borrowing restrictions for local councils were eliminated in 2001, a sanctions mechanism exists for cases where solvency is at risk.

The Baltic states employ different types of controls, although no explicit coordination rules exist. For example, in Estonia legal limits govern the financial obligations which subcentral governments may incur. The principal restriction is local governments' borrowing limit of 60 per cent of their annual revenue, while debt service payments must not exceed 20 per cent of the total revenue (net of transfers from the central government). Latvia introduced the legal obligation for all local councils to supply regular budgetary information to the Ministry of Finance. These local governments have full powers to assume debt, respecting the limits established in the annual Budget Law. The accumulated volumes are evaluated by a central body accountable to the central government. An internal mechanism of financing through borrowing, which provides for state loans to local councils, has existed since 1998. Finally, Lithuania established the legal obligation for local governments to provide balanced budgets (with no public deficit), although during each financial year councils with financing necessities may choose to receive loan financing from the state.

In Hungary, the Local Authorities Law established a series of restrictions upon local government borrowing. Furthermore, a series of rules exist for the incorporation of local budgets into the pluriannual budgetary framework designed by the Ministry of Finance. These rules concern the sources of financing, through both taxation and central government transfers. In general, the limitations are not particularly operative. With regard to Poland and Hungary, there exists no specific legal framework for fiscal policy coordination. The existing rules are focused on limiting local borrowing, and establish successive limits which prohibit further borrowing when the figure of 60 per cent is exceeded.

Similarly, no legal framework exists in the Republic of Slovenia for the coordination of budgetary policies between levels of government. However, the Ministry of Finance must authorize local government borrowing, the maximum level of which is also limited by law, and this practice has proved to be quite effective. Slovakia, has adopted a similar model, in which the lack of specific legal rules regarding coordination is compensated for by Finance Ministry controls over local government borrowing.

In the last two countries to join the European Union, Romania and Bulgaria, there currently exist legal frameworks designed to coordinate the budgetary policies of their various levels of government. In the case of Romania, a Local Government

Table 10

**Pre-accession Economic Programmes
and Influence of Decentralization upon Fiscal Policy**

Country	Pre-accession Economic Programmes	Decentralization-coordination Index
Czech Republic	3.0	2.0
Estonia	4.0	3.0
Latvia	4.0	2.0
Lithuania	5.0	4.0
Hungary	6.0	2.0
Poland	7.0	2.0
Slovenia	7.0	3.0
Slovakia	4.0	3.0
Romania	6.0	2.0 – 4.0 (2003)
Bulgaria	5.0	3.0 – 4.0 (2000)

Source: For the PEPs, Yalloutinen (2004). Author's compilation for the Decentralization-coordination index.

Finances Law was passed in 2002; this establishes the limitations and determinants of financing via borrowing, transfers and taxation, between the central government and local authorities. Furthermore, this measure establishes a borrowing limit of 20 per cent of the total annual revenue of each local budget. Bulgaria recently formalised an agreement between the national government and subcentral levels; this established overall limits for the distribution of annual revenue and expenditure, together with legal restrictions on borrowing by subcentral governments, which must in all cases be approved by the Ministry of Finance.

Summing up, since the influence that public sector decentralization may have had on fiscal policy could be important in the countries of our sample, we decided to include in the model of the following section a variable that controls for this factor. To this end, we constructed an index which permits us to establish a ranking of the existing coordination between levels of government, using the information available and taking into account the degree of decentralization shown by the public sector in each country. The values of this variable are shown in Table 10.

6 Empirical analysis and results

In order to evaluate the extent to which the budget institutions of the new EU member states, described in the two previous sections, explain the fiscal adjustments observed, we estimate the following equation:

$$Y_{i,t} = \beta_0 + \beta_1 \cdot GDP_{i,t} + \beta_2 \cdot UNEM_{i,t} + \beta_3 \cdot I_{i,t}^{DES} + \beta_4 \cdot I_{i,t}^{APPR} + \beta_5 \cdot I_{i,t}^{EXE} + \beta_6 \cdot X_{i,t}^{INST} +$$
$$+ \beta_7 \cdot PAEP_{i,t} + \beta_8 \cdot DECENT_{i,t}\varepsilon_{i,t} \tag{6}$$

where $Y_{i,t}$ is the dependent variable which represents the result of the fiscal policy implemented in country *i* in year *t*. Following the literature on fiscal adjustments, we measure this fiscal result by the annual total General Government budget balance and the primary budget balance ($GGBB_{i,t}$ or $GGPBB_{i,t}$, respectively). This means that any improvement in either of these balances implies that a fiscal consolidation has taken place in country *i* in year *t*.

On the right hand side of the equation, we include as independent variables the three institutional indexes calculated in previous sections: $I_{i,t}^{DES}$, $I_{i,t}^{APPR}$ and $I_{i,t}^{EXE}$, and a generic institutional variable, $X_{i,t}^{INST}$, to capture any remaining institutional design which may influence fiscal policy outcomes. In the alternative estimations we perform we also include the components into which the index of the first phase of budgetary design, $I_{i,t}^{DES}$, can be divided, namely the "technical" index $I_{i,t}^{BPP}$ which includes budget planning and programming processes, and the index which proxies the role of the Finance Minister at this stage, $I_{i,t}^{ROLFM}$.

In addition, we include two economic variables to control for the effect of the cycle on fiscal policy. We use those which are most common in the literature, namely GDP growth rate ($GDP_{i,t}$) and the unemployment rate ($UNEM_{i,t}$). While it is true that a high inverse correlation is to be expected between the two variables, we have opted for their simultaneous inclusion, given that in transition economies labour market adjustments and economic growth do not display a clear pattern of behaviour. As we shall see, the results obtained justify this decision.

Finally, we include two other important control variables aimed at capturing the context in which these countries implemented their fiscal adjustments. The first variable controls for subjection to Pre-Accession Economic Programmes ($PAEP_{i,t}$). Although the basic objective of the PAEPs was not the institutional coordination of the fiscal policies of the candidate countries, they entailed a prior commitment towards the fiscal discipline that these countries were required to enforce following accession to the EU, in addition to presenting their Convergence Programmes. To represent the role played by the PAEPs, we use the specific index proposed by

Yalloutinen (2004).[10] The second variable is related to the existence of a framework for fiscal policy coordination between different levels of governments in the presence of fiscal decentralisation ($DECENTR_{t,i}$). The values of both control variables are given in Table 10.

We now present our initial hypotheses for all the variables of the model. Firstly, we expect the institutional indexes to have a positive effect on the budget balance. Thus, we expect β_3, β_4 and β_5 to have positive signs. Secondly, we expect an increase in the annual rate of growth of real GDP ($\Delta GDP_{i,t}$) to lead to an improvement in the budget balance, through the functioning of the automatic stabilisers, regardless of the form in which this is incorporated into the model. Furthermore, it is foreseeable that an increase in the unemployment rate ($\Delta UNEM_{i,t}$) will negatively affect both public revenue from taxation and social protection expenditure, thereby worsening the budgetary balance, which will cause β_2 to be lower than zero. Lastly, the signs of the other two control variables, $PAEP_{i,t}$ and $DECENTR_{t,i}$, should also be positive, as we expect that greater fulfilment of the commitments acquired in the Pre-Accession Economic Programmes, or greater coordination between government levels, will strengthen the budget institution and encourage budgetary discipline.

Following the previous studies in the field,[11] we estimate equation (6) by Ordinary Least Squares (OLS), using all data in our panel with 100 observations, for 10 countries and 10 years (1994-2004). It is worth noting that when performing a longitudinal analysis of this panel, we detected the significant presence of a structural change that divides the sample into two differentiated subperiods. Strictly speaking, this is not a structural change with two clearly defined behaviour patterns, but rather a two-stage change. The first of these extends from 1994 to 1998, when the economic behaviour of the countries in our sample was far more disperse, due to the ongoing processes of democratisation, institution building and transition to a market economy. The period between 1999 and 2004 shows much greater

---

[10] This is a "similarity index" which aims to reflect the degree of integration existing in each country between the PAEPs and the annual budget elaboration process. Concretely, this index measures: a) whether the PAEP is the sole pluriannual budget framework; b) the coincidence of the Ministerial Departments which have the authority to approve both documents; c) the coincidence of the executive organs entrusted with their preparation; d) the coincidence of the accounting rules employed in their elaboration; e) the integration of the respective timetables; and f) the coincidence of objectives between the PAEP and the annual budget. The calculation of the index is performed using a total of 8 points (maximum identification between the two).

[11] This is the method followed by analyses which use a continuous dependent variable, such as the studies by Roubini and Sachs (1989); de Haan and Sturm (1994); Campos and Pradhan (1996); Halleberg and von Hagen (1999); and Hallerberg, Strauch and von Hagen (2004). In general, when the size of the panel data so permits, the authors use more sophisticated estimation techniques (for a review of the different possible techniques, see Gupta, Clements, Baldacci and Mulas-Granados, 2004). However, the only two similar studies undertaken for new EU member countries (Gleich, 2002, 2003; and Yalloutinen, 2004) also utilise OLS. We do not include fixed effects, as this would cancel out the effect of fiscal institutions.

homogeneity in all the economic and fiscal variables of the model. Consequently, we have opted, as other studies of this type have done, to estimate the model for the complete period and the two subperiods.

Table 11 presents the results of the different estimations of the basic model for the complete period 1994-2004. The model was estimated twice, one for each of the two alternative definitions of the dependent variable ($GGBB_{i,t}$ and $GGPBB_{i,t}$). In each case four equations were estimated: the first (1), in which neither of the two accessory institutional variables ($PAEP_{i,t}$ and $DECENTR_{t,i}$) were included; the second (2), in which only $PAEP_{i,t}$ was introduced; the third (3), in which only $DECENTR_{t,i}$ was included; and finally, equation (4) where all variables in the model were estimated at the same time.

Results for the four regressions where the total budget balance ($GGBB_{i,t}$) was the dependent variable show the correct expected signs for all economic and institutional variables. In the four estimations, the institutional variable linked to the index of the budget execution process, $I_{i,t}^{EXE}$, is highly significant, while the indexes that control for the design and parliamentary approval processes are not; also significant (but at lower confidence levels) are the effects of GDP growth and the rate of unemployment on the budget balance. Neither of the two accessory institutional variables prove significant; furthermore, in the case of the Pre-Accession Economic Programmes, the sign is the opposite of that expected. For $DECENTR_{t,i}$, however, the sign is the correct one, although its significance level is low.

Results for the four regressions where the primary budget balance ($GGPBB_{i,t}$) was the dependent variable show the following distinctive patterns. Again, the index of budget execution continues to be significant at a 99 per cent confidence level. And now the indexes for the design phase and the parliamentary approval phase suddenly become significant, at a 95 per cent confidence level. Another difference relates to the two economic variables of the model, which cease to be significant. And finally, $DECENTR_{t,i}$ turns to be also significant at a 95 per cent confidence level, thus confirming that the presence of fiscal coordination rules between different levels of government is clearly beneficial for the primary budget balance.

Table 12 reports the results of the different estimations for the period 1999-2004,[12] and shows that the estimations improve substantially for both

---

[12] The results of the estimations corresponding to the first subperiod (1994-98) have been omitted, since they display less significance than those obtained for the complete period. They are available from the authors upon request.

Table 11

Influence of Budget Institutions upon Fiscal Policy Behaviour, 1994-2004

	Dependent Variable = Total Budget Balance (GGBB)				Dependent Variable = Primary Budget Balance (GGPBB)			
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)
Constant	−9.403338 ***	−9.472302 ***	−9.69855 ***	−9.563965 ***	−11.61555 ***	−11.5965 ***	−9.85118 ***	−9.775501 ***
	(−3.83)	(−3.88)	(−3.49)	(−3.37)	(−5.08)	(−5.06)	(−3.87)	(−3.77)
GDP	0.261116 *	0.2535578 *	0.2551103 *	0.2519457 *	−0.0825347	−0.0804475	−0.0466413	−0.0484208
	(1.88)	(1.78)	(1.78)	(1.73)	(−0.71)	(−0.68)	(−0.4)	(−0.42)
UNEM	−0.2383337 **	−0.2243094 **	−0.2348057 **	−0.2237558 **	−0.0802095	−0.0840824	−0.1012949	−0.0950813
	(−2.56)	(−2.43)	(−2.41)	(−2.35)	(−0.86)	(−0.89)	(−1.12)	(−1.05)
I^{DES}	0.392142	0.5656512	0.4223492	0.5681988	1.241783 **	1.193867 **	1.061244 **	1.143257 *
	(0.82)	(1.16)	(0.83)	(1.14)	(2.47)	(2.29)	(2.00)	(2.16)
I^{APPR}	0.007429	0.0185888	−0.022669	0.0084969	0.2619638	0.2588818	0.4418463 **	0.4593713 **
	(0.04)	(0.1)	(−0.1)	(0.04)	(1.55)	(1.51)	(2.13)	(2.14)
I^{EXE}	1.071762 ***	1.077302 ***	1.021724 ***	1.061058 ***	0.8109224 ***	0.8093925 ***	1.109985 ***	1.132103 ***
	(4.28)	(4.27)	(3.45)	(3.4)	(3.05)	(3.02)	(3.87)	(3.86)
PAEP		−0.2262821		−0.2169946		0.0624901		−0.1220189
		(−1.14)		(−0.99)		(0.33)		(−0.57)
DECENTR			0.1739895	0.0556917			−1.039868 **	−1.106389 **
			(0.49)	(0.14)			(−2.45)	−2.41
R^2	0.3126	0.3187	0.3137	0.3188	0.3724	0.3728	0.4082	0.4096
Observations	110	110	110	110	110	110	110	110

t-Student statistics in parentheses. Significance level < 0.01 (***), between 0.01 and 0.05 (**) and between 0.05 and 0.10 (*).

Table 12

Influence of Budget Institutions upon Fiscal Policy Behaviour, 1999-2004

	Dependent Variable = Total Budget Balance (GGBB)				Dependent Variable = Primary Budget Balance (GGPBB)			
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)
Constant	−7.138135 **	−7.212966 **	−7.039309 **	−6.979829 **	−9.358504 ***	−9.223325 ***	−8.716468 **	−8.79714 **
	(−2.46)	(−2.49)	(−2.27)	(−2.20)	(−2.89)	(−2.88)	(−2.55)	(−2.61)
GDP	0.4526499 ***	0.434868 ***	0.4587565 ***	0.4474147 ***	0.2541525 *	0.2862743 **	0.2938257 *	0.3092101 **
	(5.66)	(4.85)	(5.48)	(4.99)	(1.64)	(2.00)	(1.88)	(2.11)
UNEM	−0.3571759 ***	−0.3562241 ***	−0.3563882 ***	−0.3541471 ***	−0.1657357 *	−0.1674551 *	−0.1606182 *	−0.1636581 *
	(−4.08)	(−4.01)	(−4.08)	(−4.01)	(−1.70)	(−1.72)	(−1.67)	(−1.68)
I ^{DES}	−0.5799161	−0.4274885	−0.5969932	−0,4480613	0.4863307	0.21098	0.3753856	0.1733721
	(−1.16)	(−0.89)	(−1.13)	(−0.90)	(0.86)	(0.35)	(0.64)	(0.78)
I ^{APPR}	0.182971	0.1973304	0.197064	0.2341149	0.340486 **	0.3145461 **	0.4320461 ***	0.3817897 **
	(1.53)	(1.59)	(1.33)	(1.40)	(2.62)	(2.16)	(2.67)	(2.04)
I ^{EXE}	1.75032 ***	1.755041 ***	1.766331 ***	1.795191 ***	1.005111 ***	0.9965841 ***	1.109128 ***	1.069981 ***
	(7.40)	(7.38)	(6.93)	(6.98)	(3.22)	(3.17)	(3.55)	(3.41)
PAEP		−0.1665382		−0.190073		0.3008405		0.2578179
		(−0.85)		(−0.88)		(1.21)		(0.98)
DECENTR			−0.0604896	−0.1491725			−0.3929849	−0.272694
			(−0.21)	(−0.45)			(−1.22)	(−0.80)
R ^{2}	0.6571	0.6607	0.6573	0.6616	0.4836	0.4964	0.4910	0.4997
Observations	60	60	60	60	60	60	60	60

t-Student statistics in parentheses. Significance level < 0.01 (***), between 0.01 and 0.05 (**) and between 0.05 and 0.10 (*).

Table 13

Influence of Budget Institutions upon Fiscal Policy Behaviour
Alternative 2, 1994–2004

	Dependent Variable = Total Budget Balance (GGBB)			
	(1a)	(2a)	(3a)	(4a)
Constant	–9.034289 ***	–9.152548 ***	–9.998826 ***	–9.755829 ***
	(–3.67)	*(–7.62)*	*(–3.54)*	*(–5.49)*
GDP	0.2492503 *	0.2485144 *	0.1864273	0.1880955
	(1.83)	*(1.89)*	*(1.32)*	*(1.38)*
UNEM	–0.2506925 ***	–0.2501224 ***	–0.2088098 **	–0.2103473 **
	(–2.75)	*(–2.83)*	*(–2.29)*	*(–2.38)*
I^{BPP}	–0.0269056		0.060459	
	(–0.07)		*(0.17)*	
I^{ROLFM}	0.3602739 **	0.361197 **	0.8540891 ***	0.8492804 ***
	(2.16)	*(2.26)*	*(3.34)*	*(3.51)*
I^{APPR}	–0.039556	–0.0435615	–0.1887558	–0.1816633
	(–0.22)	*(–0.28)*	*(–0.81)*	*(–0.85)*
I^{EXE}	1.171406 ***	1.163697 ***	1.107272 ***	1.120827 ***
	(4.94)	*(4.89)*	*(3.84)*	*(4.08)*
PAEP			–0.691851 ***	–0.6831449 ***
			(–2.72)	*(–2.66)*
DECENTR			0.7179303	0.7262346
			(1.58)	*(1.53)*
R^2	0.338	0.3379	0.3929	0.3927
Observations	110	110	110	110

t-Student statistics in parentheses.
Significance level < 0.01 (***), between 0.01 and 0.05 (**) and between 0.05 and 0.10 (*).

definitions of the dependent variable. When using the total budget balance, $GGBB_{i,t}$, the two macroeconomic variables appear as highly significant and show the expected signs.

With respect to the institutional variables, they generally show the correct signs, and they are especially significant when the dependent variable is the primary budget balance. Finally, the variables that control for Pre-accession Economic Programmes and fiscal coordination are statistically insignificant for this subperiod.

Table 13 presents the results from the estimations of the basic model when we incorporate the second set of budgetary indexes and analyse the entire study period.[13] Once again, the index for the execution phase is highly significant under all specifications. Also, when we introduce the index $I_{i,t}^{ROLFM}$ into the model, both variables prove to be significant simultaneously. This clearly confirms the hypothesis that having a strong Minister of Finance in the design and the execution phases is crucial for maintaining fiscal discipline, because it exerts control over public spending both before and after parliamentary discussions.

Table 14 presents the results from the estimations with the second set of budgetary indexes and for the subperiod 1999-2004 subperiod. Results for both definitions of the dependent variable, $GGBB_{i,t}$ and $GGPBB_{i,t}$, were now quite robust. In this subsample, the estimation of the various models improves considerably, and results resemble those already obtained with the first set of budget indexes. In all columns of Table 14, we see that the two macroeconomic variables of the model are statistically significant. As in all previous estimations, the index for the budgetary execution phase is strongly significant. But contrary to previous results, the indexes that disaggregate the design phase of the budget process show no statistical relevance. Finally, the variables that control for the presence of Pre-Accession Economic Programmes and for the coordination between different levels of government are both strongly significant.

In view of the results reported from the various estimations, the explanatory power of the model is, in general, reasonably satisfactory. Given the lack of data for cyclically-adjusted budget balances beyond the time series used in this article, we believe that the use of two definitions of the dependent variable and several alternative institutional indexes has enriched the analysis. and important conclusions have been obtained.

---

[13] Table 13 only reports results for the model with the budget balance as the dependent variable ($GGBB_{i,t}$). Results for the model with the primary budget balance as the dependent variable ($GGPBB_{i,t}$) showed the adequate signs, but no variable was statistically significant; however, they are available from the authors upon request.

Table 14

Influence of Budget Institutions upon Fiscal Policy Behaviour. Alternative 2 (1999-2004)

	Dependent variable = Total Budget Balance (GGBB)				Dependent variable = Primary Budget Balance (GGPBB)			
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)
Constant	−6.825014 **	−8.783718 ***	−6.135924 **	−8.260421***	−8.78489 ***	−6.472907 ***	−3.391344	−4.719929 ***
	(−2.35)	(−5.88)	(−2.00)	(−4.52)	(−2.71)	(−3.39)	(−1.14)	(−2.67)
GDP	0.4459663 ***	0.4273872 ***	0.4711052 ***	0.4326746 ***	0.2419086	0.2638387 *	0.4609646 ***	0.4369314 ***
	(5.29)	(4.75)	(5.92)	(4.53)	(1.46)	(1.69)	(5.22)	(4.33)
UNEM	−0.3729827 ***	−0.3485169 ***	−0.3761477 ***	−0.3431237 ***	−0.1946926 *	−0.2235711 **	−0.3045873 ***	−0.2839353 ***
	(−4.21)	(−3.81)	(−3.93)	(−3.52)	(−1.88)	(−2.23)	(−3.32)	(−3.07)
I ^{BPP}	−0.385594		−0.3948975		0.4551414		−0.246955	
	(−0.99)		(−1.09)		(1.05)		(−0.64)	
I ^{ROLFM}	−0.2583008 **	−0.1764302	−0.3264503	−0.1132795	−0.0860149	−0.182652	−1.330262 ***	−1.196953 ***
	(−1.72)	(−1.48)	(−1.36)	(−0.44)	(−0.51)	(−1.35)	(−4.83)	(−4.32)
I ^{APPR}	0.1981372	0.1219454	0.2899823 *	0.1983728	0.3682697 ***	0.4582038 ***	0.739659 ***	0.6823696 ***
	(1.64)	(1.03)	(1.80)	(1.24)	(3.01)	(2.92)	(4.64)	(3.75)
I ^{EXE}	1.782738 ***	1.629122 ***	1.890821 ***	1.708898 ***	1.064497 ***	1.245821 ***	1.682558 ***	1.56879 ***
	(7.61)	(6.37)	(7.17)	(6.67)	(3.40)	(4.48)	(6.32)	(6.71)
PAEP			−0.0555973	−0.2103054			1.119228 ***	1.022479 ***
			(−0.18)	(−0.60)			(3.52)	(−2.95)
DECENTR			−0.3410024	−0.2094827			−1.501498 ***	−1.41925 ***
			(−0.96)	(0.60)			(−3.84)	(−3.52)
R^2	0.6605	0.6508	0.6644	0.6565	0.4964	0.4814	0.6272	0.6237
Observations	60	60	60	60	60	60	60	60

t-Student statistics in parentheses. Significance level < 0.01 (***), between 0.01 and 0.05 (**) and between 0.05 and 0.10 (*).

7   Conclusions

This article aimed at analysing the influence of budget institutions on fiscal policy in the countries which joined the EU in 2005 and 2007. Since very few scholars have previously reported results in this area, this study is a pioneering work in its field.[14] One of the distinctive characteristics of our article is the combination of data from various sources, ranging from the OECD, the EU and the IMF, to a variety of analyses from national institutions of each member state in our sample.

The main results of this article confirm that budget institutions, even if recently (re)formed have already had a significant influence on fiscal outcomes in the new EU member states. This has been the case, in spite of the important explanatory power shown by other economic variables (GDP growth and unemployment rate), during the second half of our sample.

Secondly, with regard to the mechanism through which budget institutions affect budgetary balances, our results clearly show that the role of the Finance Minister in the execution phase (and sometimes in the design phase) has been a crucial factor in maintaining sound public finances in the new member states. In fact, this variable displayed strong statistical significance in the 28 different estimations we performed.

The role of the Finance Minister in the execution phase confirms the effectiveness of those institutional designs which halt Parliamentary attempts to modify the budget during the discussion and approval phase. By giving the Finance Minister the power to modify (even through simple transfers) the items initially approved by Parliament, such design guarantees the success of any budgetary consolidation episode, although it may raise some questions related to the democratic deficit in the role assigned to the legislature in those systems.

The fact that the new member states developed their budget institutions at the same time as they consolidated their transition to democratic regimes may explain why eight out of ten opted for forms of fiscal governance which favour *compromise* between the various Ministers with expenditure capacity, instead of stimulating *delegation* and strengthening the role of the Finance Minister. This choice also explains the difficulties they have all experienced in maintaining their past fiscal adjustments and the sizeable statistical impact that any improvement in the index of the Finance Minister's power has had in terms of reducing the public deficit.[15]

----

[14]   Only Gleich (2002, 2003) and Yalloutinen (2004) have published studies to date.

[15]   Hallerberg (2004) summarises the possible options to resolve the problem of fragmentation in budgetary decision-making, which basically range from solutions based upon delegation and the strengthening of the position of the Finance Minister, to rules which reinforce compromise with the fiscal discipline of the entire Cabinet. As our analysis shows, Bulgaria, Estonia, Lithuania, Latvia, Poland, the Czech Republic, Slovakia and Romania have adopted forms of budgetary governance based upon compromise (due principally to their multi-party political systems), and only Slovenia and Hungary have adopted mechanisms based upon delegation (both have majority systems).

Although our analysis should be replicated in the future when more fiscal data is available and institutions have been completely consolidated, we believe that this article has provided abundant evidence to support the argument that recently reformed budget institutions have already had an important influence in shaping fiscal consolidations in the new EU member states. If future research confirms that the role of fiscal institutions in the new member states is at least as important as it has been in the "old" member states, the preliminary conclusions reached by this article would become even more relevant.

APPENDIX 1

Value Range of the Variables for the Budget Institution Indices in Each Country

Institutional Variables, by Budgetary Process Phase (I.1)	Value	W$_{VAR}$	W$_{PROC}$	W$_{GLOBAL}$
A. Planning of fiscal policy and budgetary programming				0.3333
1. *Pluriannual fiscal frameworks*			0.25	
1. Type of regulation of the fiscal framework		0.4761		
a: Regulation by specific legislation	3			
b: Regulation by Annual Budget Law	2			
c: No regulation	1			
2. Time horizon		0.3571		
a: 4 years (including the budget year)	4			
b: 4 years (excluding the budget year)	3			
c: 3 years (including the budget year)	2			
d: 3 years (excluding the budget year)	1			
3. Responsible body and dependence		0.4761		
a: Coordination between the centres responsible for budgeting and economic policy	3			
b: Budgeting Centre (Ministry of Finance):	2			
c: Competence divided between organs of the Ministry of Finance	1			
4. Territorial and functional scope of the pluriannual budgetary frameworks		0.4761		
a: All public sector levels and functions	3			
b: Central government, including Social Security and equivalent funds	2			
c: Central government, excluding Social Security and equivalent funds	1			
5. Sliding review of annual financial years		0.4761		
a: Annual review of pluriannual objectives and automatic extension	3			
b: Annual review of objectives without automatic extension	2			
c: Review of current financial year	1			
6. Unification of the budget and its integration in the pluriannual framework		0.4761		
a: Non-existence of extra-budgetary funds	3			
b: Existence of fully integrated extra-budgetary funds	2			
c: Existence of non-integrated extra-budgetary funds	1			
7. Type of pluriannual budgeting		0.4761		
a: Fully effective, with control of pluriannual execution	3			
b: Orientative for principal budget lines or important programmes	2			
c: Informative	1			
Total maximum score (A.1.)		10.00		

Institutional Variables, by Budgetary Process Phase (I.2)			Value	W$_{VAR}$	W$_{PROC}$	W$_{GLOBAL}$
2.	*Fiscal rules*				0.25	
	1.	Contents of the objectives and general limitations defined in the fiscal rule		0.4166		
		a: Balanced budget, debt stock and disaggregated pluriannual expenditure objectives	4			
		b: Balanced budget, debt stock and disaggregated pluriannual revenue and expenditure objectives	3.5			
		c: Balanced budget, debt stock and annual revenue and expenditure objectives	3			
		d: Balanced budget annual revenue and expenditure objectives	2.5			
		e: Balanced budget and debt stock	2			
		f: Balanced budget and annual expenditure objectives	1.5			
		g: Balanced budget	1			
		h: Budgetary revenue and expenditure levels	0.5			
	2.	Complementary objectives and limits defined in the fiscal rule		0.8333		
		a: Nominal and real expenditure limits for each ministry/department	2			
		b: Nominal expenditure limits for each ministry/department	1			
		c: No limits exist	0			
	3.	Adjustments for inflation		0.8333		
		a: No mechanism exists	2			
		b: For salaries and pensions	1			
		c: General review of the budget	0			
	4.	Binding pluriannual, annual and expenditure limits objectives		0.5555		
		a: Binding pluriannual, annual and expenditure limits objectives	3			
		b: Binding pluriannual and expenditure limits objectives, annual objectives informative	2.5			
		c: Orientative pluriannual objectives and binding annual objectives	2			
		d: Binding expenditure limits	1.5			
		e: Flexibility to exceed expenditure limits with the authorisation of the Executive	1			
	5.	Punitive mechanisms for non-fulfilment of objectives or expenditure limits		1.6666		
		a: Exist	1			
		b: Do not exist	0			
	6.	Limits upon financing through specific liabilities (external debt, international loans)		1.6666		
		a: Exist	1			
		b: Do not exist	0			
	Total maximum score (A.2.)			10.00		

Institutional Variables, by Budgetary Process Phase (I.3)	Value	W_{VAR}	W_{PROC}	W_{GLOBAL}
3. *Integration between pluriannual frameworks and annual budgetary programming*			0.25	
1. Determination of the annual budget on the basis of the pluriannual framework		1.6666		
a: Used automatically	2			
b: Used as orientation	1			
c: Not used	0			
2. Review and analysis of annual deviations with regard to the pluriannual framework		1.6666		
a: Fully affects budgeting	2			
b: Deviations analysed separately	1			
c: Does not affect budgeting	0			
3. Relationship between the processes of designing the pluriannual framework and designing the annual budget (timetables, accounting criteria and objectives)		1.1111		
a: Complete coincidence	3			
b: Sufficient coincidence	2			
c: Basic conicidence	1 – 0.5			
d: Independence	0			
Total maximum score (A.3.)		10.00		
4. *Role played by the Finance Minister (FM) in pluriannual planning and budgetary programming*			0.25	
1. Function of the proposal of the pluriannual framework and its objectives by the FM to the government		0.6250		
a: Proposal by the FM of the objectives, and full acceptance by the government	4			
b: Proposal by the FM of the objectives, and negotiation in Cabinet, within the limits established in the initial proposal	3			
c: Proposal by the FM of the basic outlines, and redefinition of objectives and allocations by the sectorial ministers	2			
d: Orientative proposal by the FM	1			
2. Model of negotiation between the FM and the sectorial ministers		0.6250		
a: Bilateral, subject to final approval by the FM, according to limits	4			
b: Bilateral, final decision made by the Council of Ministers	3			
c: Multilateral, in the Council of Ministers, withoug prior agreements	2			
d: External political negotiation in coalition governments	1			
3. Model for the resolution of disagreements between the FM and the sectorial ministers		2.5000		
a: Final decision made by the Prime Minister, following debate in the Council	1			
b: Final decision made by the Council of Ministers	0			
4. Leadership of the Finance Minister in the budget process		0.8333		
a: Full (including powers of veto, reallocation and control of the timetable)	3			
b: Principal (power of veto and control of the timetable)	2			
c: Basic (control of the timetable and directives)	1			
Total maximum score (A.4.)		10.00		

Institutional Variables, by Budgetary Process Phase (II)			**Value**	**W_{VAR}**	**W_{PROC}**	**W_{GLOBAL}**
B.	Parliamentary approval of the budget					0.3333
	1. The role of Parliament				1.00	
	1.	Power to amend the budget presented by government		1.6666		
		a: No	1			
		b: Yes	0			
	2.	Scope of parliamentary power to amend		0.5555		
		a: Without exceeding overall expenditure limits	3			
		b: Balancing any proposal for an increase in expenditure by an increase in revenue	2			
		c: Without increasing the public deficit	1			
		d: Unlimited	0			
	3.	Volume of modifications introduced in debate in Parliament		0.4166		
		a: < 0.1 per cent	4			
		b: < 0.2 per cent	3			
		c: < 0.3 per cent	2			
		d: < 0.5 per cent	1			
		e: > 0.5 per cent	0			
	4.	Voting upon overall bill by Parliament		1.6666		
		a: Before amendments are introduced	1			
		b: Following discussion and approval, where applicable, of the amendments	0			
	5.	Time limit of the process which must result in the approval of the budget		1.6666		
		a: A limit exists	1			
		b: No limit exists	0			
	6.	Content of the budget to be applied in the absence of parliamentary approval		1.6666		
		a: The proposal presented to Parliament is applied provisionally	1			
		b: 1/12 of the last budget approved is applied until the present budget is passed	0			
	Total maximum score (B.1.)			10.00		

Institutional Variables, by Budgetary Process Phase (III)	Value	W$_{VAR}$	W$_{PROC}$	W$_{GLOBAL}$
C. Execution of the annual budget and modifications				0.3333
1. Control by the Finance Minister of the allocations approved			1.00	
1. Capacity to reduce the allocations approved by Parliament		0.8333		
a: Capacity exists	2			
b: Limited capacity	1			
c: No capacity	0			
2. Authorization of the Ministry of Finance for the disposition of funds in the budget		1.6666		
a: Yes	1			
b: No	0			
3. Capacity of the Finance Minister to limit the authorization of payments		1.6666		
a: Yes	1			
b: No	0			
4. Possibility of making transfers between approved budget items		0.5555		
a: No	3			
b: Only in specific cases and if approved by the Finance Minister	2.5			
c: Yes: must be approved by the Finance Minister	2			
d: Yes: some are approved by the Government and others by the Finance Minister	1.5			
e: Yes: approved by the Government	1			
f: Yes: decided by the ministers responsible for the expenditure sector				
5. Possibility of introducing modifications to the budget		0.8333		
a: No	2			
b: Yes, but in exceptional cases	1			
c: Yes	0			
6. Possibility of incorporating unspent funds into the following financial year		0.8333		
a: No	2			
b: Yes, but with limitations	1			
c: Yes	0			
Total maximum score (C.1.)		10.00		

REFERENCES

Afonso, A. Nickel, C. and P.C. Rother (2006), "Fiscal Consolidations in Central and Eastern European Countries", ECB, Working Paper, No. 473.

Alesina, A. and S. Ardagna (1998), "Tales of Fiscal Contractions: Fiscal Adjustments. Why They Can be Expansionary", *Economic Policy*, No. 27, pp. 489-543.

Alesina, A., G.D. Cohen and N. Roubini (1992), "Macroeconomic Policies and Elections in OECD Democracies", *Economics and Politics*, No. 4, pp. 1-30.

Alesina, A. and R. Perotti (1995), "The Political Economy of Budget Deficits", IMF, Staff Papers, Vol. 42, No. 1, pp. 1-31.

Balassone, F., D. Franco and S. Zotteri (2003), "Fiscal Rules for Subnational Governments in the EMU Context", Societa Italiana di Economia Pubblica, Working Paper, No. 196/2003, Pavia.

———————— (2004), "EMU, Fiscal Rules and Fiscal Decentralisation", *Presupuesto y Gasto Público*, No. 35, pp. 63-99.

Campos, E. and S. Pradhan (1996), "Budgetary Institutions and Expenditure Outcomes: Binding Governments to Fiscal Performance", Working Paper, No. 1646, World Bank Policy Research, Washington (D.C.).

De Haan, J. and J.E. Sturm (1994), "Political and Institutional Determinants of Fiscal Policy in the European Community", *Public Choice*, No. 80, pp. 157-72.

European Commission (2001), "Public Finances in EMU", *European Economy*, No. 3.

Giavazzi, F. and M. Pagano (1990), "Can Severe Fiscal Contractions Be Expansionary?", *NBER Macroeconomics Annual*, pp. 75-116.

Gleich, H. (2002), "The Evolution of Budget Institutions in Central and Eastern European Countries"*, doctoral dissertation, University of Bonn.

———————— (2003), "Budget Institutions and Fiscal Performance in Central and Eastern European Countries", European Central Bank, Working Paper, No. 215.

Grilli, V., D. Masciandaro and G. Tabellini (1991), "Institutions and Policies: Political and Monetary Institutions and Public Financial Policies in the Industrial Countries", *Economic Policy*, No. 13, pp. 341-92.

Gupta, S., B. Clements, E. Baldacci and C. Mulas-Granados (2005), "Fiscal Policy Expenditure Composition, and Growth in Low Income Countries", *Journal of International Money and Finance*, No. 24, pp. 441-63.

Hallerberg, M. (2004), *Domestic Budgets in a United Europe. Fiscal Governance from the End of Bretton Woods to EMU*, Ithaca (N.Y.), Cornell University Press.

Hallerberg, M., R. Strauch and J. von Hagen (2001), "The Use and Effectiveness of Budgetary Rules and Norms in EU Member States", report prepared for the Dutch Ministry of Finance by the Institute of European Integration Studies, June 11.

Hallerberg, M., R. Strauch, and J. von Hagen (2004), "The Design of Fiscal Rules and Forms of Governance in European Union Countries", European Central Bank, Working Paper, No. 419.

Halleberg, M. and J. von Hagen (1997), "Electoral Institutions, Cabinet Negotiations and Budget Deficits in the European Union", CEPR, Working Paper, No. 1555.

——————— (1999), "Electoral Institutions, Cabinet Negotiations, and Budget Deficits within the European Union", in J. Poterba and J. von Hagen (eds.), *Fiscal Institutions and Fiscal Performance*, pp. 209-32, Chicago (IL), Chicago University Press.

Mulas-Granados, C. (2006), *Economics, Politics and Budgets: The Political Economy of Fiscal Consolidations in Europe*, Basingstoke (UK), Palgrave-Macmillan.

Perotti, R. and Y. Kontopoulus (2002), "Fragmented Fiscal Policy", *Journal of Public Economics*, No. 82, pp. 191-222.

Persson, T. and G. Tabellini (1999), "Political Economics and Public Finance", in A. Auerbach and M.S. Feldstein (eds.), *Handbook of Public Economics*, *Volume III*, Amsterdam, North Holland.

Purfield, C. (2003), "Fiscal Adjustment in Transition Countries: Evidence from the 1990s", International Monetary Fund, Working Paper, WP/03/36.

Roubini, N. and J.D. Sachs (1989), "Political and Economic Determinants of Budget Deficits in the Industrial Democracies", *European Economic Review*, No. 33, pp. 903-38.

von Hagen, J. (1992), "Budgeting Procedures and Fiscal Performance in the European Communities", Economic Paper, No. 96, Bruxelles, Commission of the European Communities.

von Hagen, J., A.H. Hallett and R. Strauch (2001), "Budgetary Consolidation in EMU", *Economics Papers*, No. 148, Bruxelles, Commission of the European Communities.

von Hagen, J. and I. J. Harden (1994), "Budget Processes and Commitment to Fiscal Discipline", *European Economic Review*, 39: 771-79.

Yalloutinen, S. (2004), **"**Fiscal Institutions in CEECs", doctoral dissertation, University of Jyväskyla, Finland.

Zápal, J. and O. Schneider (2006), "What Are Their Words Worth? The Political Pains of Fiscal Consolidations in the New EU Member States", *Eastern European Economics*, Vol. 44, No. 5, pp. 6-37.