# Budgeting in Europe:

## Did the domestic budget process change after Maastricht?

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*Abstract*

This paper is part of a broader project that considers whether Maastricht changed the way that European Union Member States make budgets. It has four parts. 1) It first examines the development of domestic fiscal rules the past decade. Von Hagen (1992) provides a detailed data set collected in 1991, the year twelve Member States signed the Maastricht Treaty. The dataset serves as the baseline for this study. Hallerberg, Strauch, and von Hagen (2001) conducted a similar survey that provides data for fiscal rules in the current fifteen Member States in 2001, or at the beginning of Stage III of EMU. I find that some parts of the budget process have been strengthened in all countries. In aggregate, however, the amount of change is not the same: While some countries like Belgium initiated significant reforms, others like Germany and Portugal did not make similar improvements. 2) In order to understand the development of the budget rules, a theoretical framework of budgeting in parliamentary democracies is necessary. I begin with a discussion of the common pool resource problem that plagues budgeting. This problem arises when decision-makers do not consider the full tax implications of their spending decisions. Centralization of the budget process reduces the problem, and in practice there are two ways to achieve this centralization. One involves *delegation* to a finance minister. The second solution involves detailed fiscal rules in the form of a *commitment* to a fiscal contract. 3) Once this theoretical framework is in place, one can evaluate whether European Union states made changes to their budget systems consistent with either *delegation* or *commitment.* I find that countries that adopt fiscal rules most consistent with a country's expected form of fiscal governance have better fiscal performance than countries that do not. 4) I conclude with a consideration of how Maastricht does, or does not, reinforce budget discipline in European Union countries. The effects of the European Union-level rules have been asymmetric. They reinforce budget systems in countries where *commitment* to fiscal contracts are in place. They have much less effect in *delegation* states, or in countries that rely on the discretion of the finance minister to keep the budget in order.

*Introduction*

Fiscal rules have gained considerable prominence in OECD countries over the past decade, and very much so in Europe. Policymakers and voters became concerned with the large and persistent fiscal deficits and rising public debts that emerged in most OECD countries during the past 30 years.

There is now widespread agreement in both the academic and policy communities that the institutional framework of public budget processes affects budgetary outcomes. The context of European monetary integration has heightened policy interest in the effects of fiscal rules, as it was feared that a lack of fiscal discipline in some member states could undermine the stability of the common currency. At the European level, the rules of the Excessive Deficit Procedure of the Maastricht Treaty and the Stability and Growth Pact are a prominent example for governments turning to rules constraining and guiding fiscal policies in an attempt to improve fiscal performance. At the domestic level, Economic and Monetary Union may have spurred countries to reform their budget systems. While the Excessive Deficit Procedure provides a framework to punish states that exceed a deficit ceiling of 3% of GDP, the Procedure does not dictate *how* states are to maintain fiscal discipline.

This paper examines the development of domestic fiscal rules the past decade. Von Hagen (1992) uses data collected in 1991, the year twelve Member States signed the Maastricht Treaty. The dataset serves as the baseline for this study. Hallerberg, Strauch, and von Hagen (2001) conducted a similar survey that provides data for fiscal rules in the current fifteen Member States in 2001.[1]

I use the more recent data to update the fiscal indices presented in von Hagen (1992). I find that some parts of the budget process have been strengthened in all countries. The framework that supports the Stability and Growth Pact requires Member States to submit either Stability Programmes (if they are members of EMU) or Convergence Programmes (if they are outside of EMU), and these plans now mean that there are long-term budget plans in every country. In aggregate, however, the amount of change is not the same in all countries: While some countries like Belgium initiated significant reforms, others like Germany and Portugal did not make similar improvements.

The second part of the essay examines the effectiveness of these fiscal rules. It also reviews a theoretical framework to evaluate in which country some fiscal rules should be more effective than others. Focusing on the coordination of budgeting decisions among the various agents in the budget process – the members of cabinet, the members of parliament, and the administration implementing the budget – it discusses two ideal forms of fiscal governance conducive to greater fiscal discipline, a form of *delegation* and a mode of *commitment*. *Delegation* involves vesting the Finance Minister with significant decision-making powers over public monies. Under *commitment* a group of agents with similar decision-making rights enters an agreement to commit themselves strictly to budgetary norms, i.e., targets for budget aggregates set for one or several years.

[1] The 2001 questionnaire did not overlap completely with von Hagen (1992). The author conducted a follow-up survey for the EU 15 in summer and fall 2002 that insured that there are answers for all items asked in the 1991 survey.

Hallerberg and von Hagen (1999) and Hallerberg (2003) show that both modes of fiscal governance exist in EU member states and have produced better fiscal outcomes than alternative modes that do not achieve appropriate coordination of budgetary decisions. I deconstruct the Von Hagen (1992) index according to whether a fiscal rule is more effective under different forms of fiscal governance. In the empirical analysis, I find that states that adopt rules that fit their form of fiscal governance perform better than states that do not have similar rules. This result holds both for the period 1981-94, or when Maastricht's guidelines would not have had an effect, and 1998-2001 after the beginning of Stage III of EMU.

There is a clear implication of this work for the design of fiscal rules at the European Union level. There is no "one-size-fits-all" set of rules that are equally effective across member states. The almost obsessive focus on strict rules complements, and reinforces, existing practices in *commitment* states like Belgium and the Netherlands, but has little effect in *delegation* states where finance minister discretion rather than strict adherence to rules promotes fiscal discipline.

*European Union Construction of the Fiscal Rules Index, 1991*

What is known in the literature as the common pool resource (CPR) problem arises in every budget process. The root of the problem is that decision-makers consider the full (positive) benefit of additional spending but do not internalize the full (negative) tax burden. An agricultural minister, for example, may consider the full benefits of subsidies to farmers as well as the full costs to farmers, which in practice represent only a small fraction of total taxpayers in a typical industrialized country. Similarly, a member of parliament may focus only on the benefits and costs of building a new bridge across the Thames for her electoral district in London only. The implications of the CPR problem for budget realizations are higher expenditures than the ministers themselves would want in aggregate and, in a multi-period setting where deficit-financing is available, higher deficits (Hallerberg and von Hagen 1999; Velasco 2000).

Fiscal rules matter because they structure the decision-making process and affect the severity of the CPR problem. Rules that allow reciprocity among decision-makers lead to "log rolls" and increase the CPR problem. Collective cabinet decision-making, for example, allows ministers to support each other's favorite projects. Such rules lead to "universalism," or the outcome that there is something for everyone in the budget. Other sets of rules, however, encourage decision-makers to consider the full tax implications of their decisions. They also limit the possibilities for reciprocity among decision-makers.

Von Hagen (1992) creates an index that measures the extent to which fiscal rules reduce the common pool resource problem. The index is based upon the following stages of the budget: structure of negotiations within parliament, structure of the parliamentary process, informativeness of the budget draft, flexibility of budget execution, and the long-term planning constraint. I update this index based on the data provided in Hallerberg, Strauch, and von Hagen (2001). The rationale for the categorizations as well as the figures for 1991 and 2001 are discussed below. While not part of the index, I also present comparative data for each time period on the type of restrictions national governments place on sub-national governments. The Maastricht definitions for deficits and debts cover general government realizations, not simply central government, and the increased scrutiny of sub-national government finance may have led to a change in the relationship among the different levels of government.

A word should also be added about the cases before moving into the discussion of fiscal rules in 1991 and 2001. Von Hagen (1992) catalogs the fiscal rules in place in the countries that were European Community members at the time. Three countries acceded to the Union in 1995, and two of the three are now members of the eurozone. In order to conduct a comparison of the fiscal rules in all current Member States, I add data from the early 1990's for the three accession countries that do not appear in Von Hagen (1992).[2]

*Structure of Negotiations within Government*

This initial index from von Hagen (1992) considers how the government determines its budget proposal. The theoretical motivation is to examine how easily cabinet ministers can pass budgets that are what they consider ideal for their ministry. If ministers consider the full spending benefits and full tax benefits on their ministries only, then the CPR problem would be severe if the total budget is equal to a simple aggregation of ministerial budget.

Four different aspects of the decision-making process within government may prevent this outcome. The first questions concerns whether there is a general constraint on the budget before the cabinet considers it. The tighter this constraint, the higher the score for a given country. The constraints range from no constraint at all, which we score a zero, to pre-established levels of both total spending and the budget balance as a percent of GDP, which we score a four.[3] Table 1 indicates that there has been a clear change in the use of such constraints at the governmental decision-making stage. In 1991, roughly half of the states had no or weak constraints, and only three countries received the highest mark. By 2001, however, 10 of the 15 had imposed more specific constraints, with over half now receiving the highest mark. The Maastricht process, which requires states to have budget deficits no larger than 3% of GDP, as well as the Stability and Growth Pact, which establishes that states should have budget balances "close to balance or in surplus," may have led to more consideration of such constraints at the government stage of the budget process.

The second question considers the agenda-setting power of the finance minister in government. If the minister simply collects bids from spending ministers, the score on agenda setting equals zero, while the highest score is given to countries where the finance minister (or prime minister) simply determines the budget parameters for the spending ministers. In 1991, the average score was 2.1, and only France and Luxembourg received the highest scores. By 2001, eight had increased the power of the finance minister relative to other ministers while two countries (the Netherlands and the UK) experienced a slight weakening.

The third question focuses on the scope of budget norms in the setting of the agenda. If the only norm concerned either expenditures or the deficit only, the country received a zero. A four was given where the scope was broad. Once again, there is a clear improvement from 1991 to 2001. Based on the answers from the 2001 survey, all countries receive a four in 2001. This is

[2] Unpublished work by von Hagen and Harden for Austria and Finland as well as Molander's (1992) study of Sweden provide the needed information. The author thanks personnel at the Finnish Finance Ministry for double-checking all the 1991 numbers for Finland.

[3] Exact scoring for the general constraint: 0 none 1 B/Y 2 B/Y and D/Y 3 G/Y or Golden Rule 4 G/Y, D/Y.

(probably) due to the broadness of budget norms that are now required at the European Union level.

The final question concerns the structure of budget negotiations, and this again relates to the involvement of the finance minister. If all ministers are involved in budget negotiations, then the country earns the lowest score, while if the negotiations take place bi-laterally between a spending minister and the minister of finance the country receives a four. In this case, there is

## Table 1: Structure of Negotiations within Government

| Country | General Constraint | | Agenda Setting | | Budget Norms | | Structure of Negot | | Sum | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 |
| Austria | 0 | **4** | 2 | **4** | 0 | **4** | 2 | 2 | 4 | **14** |
| Belgium | 0 | **4** | 1 | **2** | 0 | **4** | 0 | **2** | 1 | **12** |
| Denmark | 4 | 4 | 3 | **4** | 1.33 | **4** | 4 | *2* | 12.33 | **14** |
| Finland | 1 | **4** | 2 | 2 | 0 | **4** | 2 | 2 | 5 | **12** |
| France | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 16 | 16 |
| Germany | 3 | 3 | 1 | **2** | 4 | 4 | 4 | 2 | 12 | *11* |
| Greece | 0 | **2** | 1 | **4** | 0 | **4** | 0 | **4** | 1 | **14** |
| Ireland | 2 | **4** | 1 | **4** | 0 | **4** | 0 | **2** | 3 | **14** |
| Italy | 2 | **4** | 1 | **4** | 2.66 | **4** | 2 | **4** | 7.66 | **16** |
| Luxembourg | 3 | 3 | 4 | 4 | 4 | 4 | 0 | 0 | 11 | 11 |
| Netherlands | 1 | **3** | 3 | *2* | 2.66 | **4** | 4 | *2* | 10.66 | 11 |
| Portugal | 1 | **4** | 2 | 2 | 2.66 | **4** | 4 | *2* | 9.66 | **12** |
| Spain | 0 | **3** | 2 | **4** | 4 | 4 | 0 | **4** | 6 | **15** |
| Sweden | 0 | **3** | 0 | **3** | 1.33 | **4** | 4 | 4 | 5.33 | **14** |
| UK | 4 | 4 | 3 | *2* | 4 | 4 | 4 | 4 | 15 | *14* |
| **Average** | 1.7 | **3.5** | 2.0 | **3.1** | 2.0 | **4.0** | 2.3 | **2.7** | 8.0 | **13.3** |

Note: Changes from 1991 to 2001 that increase the index appear in **bold,** while changes that decrease the index appear in *italics.* Data are from Von Hagen (1992) and Hallerberg, Strauch, and von Hagen (2001).

not an overall trend to observe, with the average score improving from 2.0 to 2.4. Yet the aggregate number obscures change within a majority of Member States—five centralize the structure of negotiations while four decentralize it.

Overall, the structure of the government stage of the budget process has improved five points on average, from eight to thirteen. Some of the improvements are fairly dramatic—Austria, Greece, Ireland, and Spain all increase their indices at least nine points. In 2001, the three states with the lowest aggregate index of eleven would still have tied for fifth place overall in 1991.

*Structure of the Parliamentary Process*

The assumption in Von Hagen (1992) is that the easier it is for parliament to amend the government's budget, the more likely the CPR problem can creep into the budget process.

Parliamentarians then have the possibility to insert their pet projects into the government's proposal will increase spending.

The first three questions concern amendments. If parliamentary amendments to the government's budget are limited, the country receives a score of four, while if amendments are not limited the score is zero. If amendments must be offsetting, that is, if any increase in spending requires a concomitant increase in revenues or decrease in spending in another field, then the country is assigned a four, while if the amendments are not required to be offsetting the score is zero. If an amendment can cause the fall of the government, then the country receives a four, while if an amendment cannot lead to a fall in government the score is zero. The rationale on this last item is that the government can threaten to dissolve itself if an amendment is not withdrawn. This threat may increase party discipline within the parties that compose the government. The final question asks whether or not parliament first votes on the total size of the budget before it considers individual items in the budget. The public finance literature has argued that a more top-down approach leads to better fiscal discipline than where the final budget figure is simply the sum of different spending items passed one by one.

Table 2 indicates that, in aggregate, there has been some strengthening of the government vis-à-vis parliament. In terms of specifics, whether or not amendments to the government's budget are limited changed little, with only Greece introducing limitations while Italy, the Netherlands, and Spain loosened limitations. A more notable change concerned offsetting amendments—a majority of states introduced this requirement, and, combined with two states that already had such a requirement in place, ten of fifteen now require offsetting amendments. The change is equally apparent when examining the global vote on the total budget—once again, eight states introduced this requirement that did not have it in 1991. When taken together, the biggest aggregate improvements in the index were in Greece, Germany, Italy, and Sweden. While three countries slipped somewhat, the general trend was for stronger governments.

This is one of the most surprising, and potentially one of the most interesting, findings of this paper. There is no *direct* reason why the Maastricht process should change how parliaments consider government budgets. Nowhere in the Treaties are there articles that dictate how national parliaments should do anything on budgetary matters. Yet there does seem to be an indirect effect of the Maastricht process. The larger states of Germany, Italy, and Spain in particular made revisions, and they brought their indices to the levels already existing in the remaining large countries of France and the United Kingdom. I will return to this point later in the paper when I discuss possible reasons for the patterns in the data.

*Table 2: The Parliamentary Stage*

| Country | Amendments Limited | | Amendments Offsetting | | Amendment Cause Fall | | Global Vote on Total Budget | | One Vote on Expenditure | | Sum Parliament | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 |
| Austria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 |
| Belgium | 0 | 0 | 0 | 0 | 4 | 4 | 0 | **4** | 0 | 0 | 4 | **8** |
| Denmark | 0 | 0 | 4 | *0* | 4 | *0* | 0 | **4** | 4 | 4 | 12 | *8* |
| Finland | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 2 | 2 | 6 | 6 |
| France | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | *0* | 18 | *16* |
| Germany | 0 | 0 | 0 | **4** | 4 | 4 | 0 | **4** | 0 | **2** | 4 | **14** |
| Greece | 0 | **4** | 0 | **4** | 0 | **4** | 0 | **4** | 0 | 0 | 0 | **16** |
| Ireland | 4 | 4 | 0 | **4** | 4 | 4 | 0 | 0 | 0 | **4** | 8 | **16** |
| Italy | 4 | *0* | 0 | **4** | 0 | **4** | 0 | **4** | 2 | 2 | 6 | **14** |
| Luxembourg | 4 | 4 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 8 | 8 |
| Netherlands | 4 | *0* | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 16 | *12* |
| Portugal | 0 | 0 | 0 | 0 | 4 | 4 | 1 | **4** | 0 | 0 | 5 | **8** |
| Spain | 4 | *0* | 0 | **4** | 0 | 0 | 0 | **4** | 0 | 0 | 4 | **8** |
| Sweden | 0 | 0 | 0 | **4** | 4 | 4 | 0 | **4** | 4 | 4 | 8 | **16** |
| UK | 4 | 4 | 0 | **4** | 4 | 4 | 4 | 4 | 4 | 4 | 16 | **20** |
| **Average** | 1.9 | *1.3* | 0.5 | **2.1** | 2.9 | **3.2** | 0.9 | **2.9** | 1.7 | **2.0** | 7.9 | **11.6** |

Note: Changes from 1991 to 2001 that increase the index appear in **bold,** while changes that decrease the index appear in *italics.* Data are from Von Hagen (1992), Hallerberg, Strauch, and von Hagen (2001), and a set of interviews conducted in summer and fall of 2002.

*Informativeness of the Budget Draft*

The questions in this section evaluate the transparency of the budget draft. A less transparent budget makes it easier for budget-makers to hide funds or to obfuscate the true costs of given spending programs.

The first question concerns whether or not special funds are included in the budget draft. If so, the country receives the highest score, a four. If special funds are off-budget, which in practice was the case only in Portugal in 1991, then the country receives a zero. Intermediate values indicate cases where some, but not all, funds are included.[4] The second question concerns whether or not the budget is included in one documents, which countries that have the budget in one document receiving a four and those that do not a zero. The third question asks the respondent to evaluate whether or not she thinks that the budget process in her country is transparent. While certainly a subjective judgment, the question allows us to consider the level of transparency in a way that may not be picked up examining the drafting of the budget only.[5] The fourth question asks whether the budget draft is linked to national accounts. Cases where the

[4] Cases where"some" are included receive a 1, "most" a 2, and "included, but not in the budget draft itself but as an Appendix" a 3.
[5] "hardly transparent" was scored a 0, "not fully transparent" a 2, and "fully transparent" a 4.

draft is linked receive higher scores than cases where the draft is not linked.[6] The final question considers whether government loans appear in the budget draft.[7]

Table 3 indicates that there has been a general increase in the level of transparency, from an average score of 13 out of 20 in 1991 to 16.1 in 2001. Countries with scores of 10 or below in 1991 all made improvements. The most frequent change was the requirement that the budget draft appear as one document; four of five countries that did not include the budget in one draft in 1991 did so by 2001. Similarly, it is now generally the norm that government loans appear in the draft as well—only in Portugal is this definitively not the case. Four countries increased the linkage of their budget drafts with the national accounts. In aggregate, the most transparent countries are small northern European democracies, with the Netherlands and Sweden having perfect scores while Finland is almost perfect as well at 19. The clear outlier in the other direction is now Portugal, which is the only country to have an aggregate score below 10. The remaining southern European countries are closer to the mean.

*Table 3: Informativeness and Transparency of the Budget Draft*

| **Country** | **Special Funds Included** | | **Budget in one Document** | | **Transparency Assessment** | | **Link to National Accounts** | | **Government Loans Included** | | **Total, Transparency** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1991** | **2001** | **1991** | **2001** | **1991** | **2001** | **1991** | **2001** | **1991** | **2001** | **1991** | **2001** |
| Austria | 1 | 1 | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 15 | 15 |
| Belgium | 2 | *1* | 2 | **4** | 2 | 2 | 0 | **4** | 4 | 4 | 10 | **15** |
| Denmark | 2 | 2 | 4 | 4 | 2 | 2 | 1.33 | **2.66** | 4 | 4 | 13.33 | **14.66** |
| Finland | 3 | 3 | 4 | 4 | 2 | **4** | 4 | 4 | 4 | 4 | 17 | **19** |
| France | 4 | 4 | 4 | 4 | 4 | 4 | 2.66 | 2.66 | 0 | **4** | 14.66 | **18.66** |
| Germany | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 17 | 17 |
| Greece | 3 | *2* | 0 | **4** | 4 | *2* | 1.33 | 1.33 | 2 | **4** | 10.33 | **13.33** |
| Ireland | 1 | **4** | 0 | **4** | 2 | 2 | 0 | **4** | 2 | 2 | 5 | **16** |
| Italy | 1 | 1 | 0 | **4** | 0 | **2** | 0 | **1.33** | 4 | 4 | 5 | **12.33** |
| Luxembourg | 4 | *3* | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 20 | *19* |
| Netherlands | 4 | 4 | 4 | 4 | 2 | **4** | 4 | 4 | 4 | 4 | 18 | **20** |
| Portugal | 0 | **2** | 4 | 4 | 2 | 2 | 1.33 | 1.33 | 0 | 0 | 7.33 | **9.33** |
| Spain | 3 | *2* | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 17 | *16* |
| Sweden | 1 | **4** | 0 | **4** | 4 | 4 | 4 | 4 | 0 | **4** | 9 | **20** |
| UK | 4 | 4 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 16 | 16 |
| **Average** | 2.4 | **2.7** | 2.5 | **3.7** | 2.7 | **2.9** | 2.6 | **3.3** | 2.8 | 3.5 | 13.0 | **16.1** |

Note: Changes from 1991 to 2001 that increase the index appear in **bold,** while changes that decrease the index appear in *italics.* Data are from Von Hagen (1992), Hallerberg, Strauch, and von Hagen (2001), and a set of interviews conducted in summer and fall of 2002.

*Flexibility of Budget Execution*

This section considers rules on the execution of the budget. A budget may, as proposed and as passed by parliament, be designed to maintain fiscal discipline in a country, but this budget is not

[6] If there is no link the country receives a 0, if a link is "possible" the score is 1.33, if the link exists but is provided in a separate document the score is 2.66, and if the link is directly to the budget draft the score is 4.

[7] If the loans are not included the score is 0, if included in a separate document the score is 2, and if included in the budget draft the score is 4.

enough to ensure fiscal discipline. The easier it is to change the budget during its execution, the easier it is to undermine the discipline in the budget. Conversely, the more inflexible the execution of the budget, the more fiscal discipline.

Von Hagen (1992) asks six questions concerning the execution stage. The first addresses whether or not the finance minister has the power to block expenditures, with affirmative answers receiving a score of four and negative answers a score of zero. The second considers whether spending ministers are subject to cash limits. If they are, it is more difficult for ministers to spend over their budget allocations and the country is scored a four, while if they are not the country is scored a zero. The third asks how easily funds can be transferred between chapters. Countries with unrestricted transfers receive a zero, while countries where the transfers can only be within departments, and even then are subject to the finance minister's consent, receive a top mark of five.[8] The fourth asks how easily the government can change the existing budget law. If it can make changes at its discretion, then it is easy for governments to make constant revisions. The country then receives a zero. If changes to the budget law fall under the same regulations as the ordinary budget, then the country receives a four.[9] The final question concerns carry-over provisions to the following year. If the unused funds have no restrictions on their carry-over, then the country receives the lowest score. If carry-overs are not possible, the country receives a four.

As Table 4 shows, in aggregate there has been less change at this stage of the budget process than at other stages. Moreover, in 1991, the average controls on the execution of the budget were not that high, or 11.08 out of a possible 25. By 2001, the average had increased only to 12.55. Yet the aggregate figures again hide important changes in individual countries as well as in values for the individual indices. Three countries (Italy, Luxembourg, and Sweden) improved at least nine points in the index. On the other hand, two countries (Belgium and Germany) fell at least seven points. Concerning the individual indices, the changes in the power of the finance minister went only one way—six states added the power to block spending during the execution of the budget, which leaves only four finance ministers without this ability. Similarly, three countries added cash limits on ministers, which leave only five countries without such limits. There was also some strengthening of the rules on transfers between chapters, with the most dramatic change in Sweden. The same trend was not evident for the remaining indices. For disbursement approval, budget changes, and carry-over provisions there were fewer changes, and those that were made were more likely to lower the index than to increase it. The drop was especially clear for budget changes, with seven of fifteen now allowing changes mid-year that did not allow them before. In 2001, only four countries required changes to the budget to go through the same procedure as the passage of the ordinary budget. As is the case for the parliamentary index, none of the changes that occurred are mandated by the Excessive Deficit Procedure or by the Maastricht Treaty.

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[8] The full range of possible scores on the transfer of expenditures between chapters are: 0 unrestricted, .8 limited 1.6 require consent of the finance minister 2.4 require consent of parliament 4 only within departments possible 5 only within departments and with consent of the finance minister.

[9] The full range of possible scores on changes in budget law during execution: 0 at the discretion of government; 1 by a new law that is regularly submitted during the fiscal year; 2 at discretion of the finance minister; 3 require consent of both finance minister and parliament; 4 only by budgetary law to be passed under the same regulations as the ordinary budget.

# Table 4: Flexibility of Budget Execution

| Country | MF can Block | | Cash Limits | | Disbursement Approval | | Transfers | | Budget Changes | | Carry-over | | Sum Execution | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 |
| Austria | 4 | 4 | 4 | 4 | 4 | 4 | 2 | **5** | 0 | 0 | 2.66 | 2.66 | 16.66 | **19.66** |
| Belgium | 0 | **4** | 0 | 0 | 4 | *0* | 3.2 | *0* | 4 | *0* | 0 | 0 | 11.2 | *4* |
| Denmark | 0 | **4** | 4 | 4 | 0 | 0 | 2.4 | *0* | 4 | *3* | 0 | 0 | 10.4 | **11** |
| Finland | 0 | 0 | 0 | 0 | 4 | 4 | 5 | **5** | 0 | 0 | 4 | 4 | 13 | 13 |
| France | 4 | 4 | 4 | 4 | 4 | 4 | 3.2 | 3 | 4 | *0* | 1 | 1.33 | 20.2 | *16.33* |
| Germany | 4 | 4 | 4 | 4 | 4 | *0* | 1.6 | *0.8* | 3 | *0* | 2 | **2.66** | 18.6 | *11.46* |
| Greece | 4 | 4 | 4 | 4 | 0 | **4** | 1.6 | 1.6 | 2 | *0* | 3 | *0* | 14.6 | 13.6 |
| Ireland | 0 | **4** | 0 | 0 | 0 | **4** | 4 | *1.6* | 4 | 4 | 3 | *1.3* | 11 | *14.93* |
| Italy | 0 | **4** | 0 | **4** | 0 | **4** | 0 | 0 | 1 | *0* | 0 | 0 | 1 | **12** |
| Luxembourg | 4 | 4 | 0 | **4** | 0 | 0 | 0 | **5** | 4 | 4 | 4 | 4 | 12 | **21** |
| Netherlands | 0 | 0 | 0 | 0 | 4 | *0* | 0 | **1.6** | 0 | 0 | 1 | 1.33 | 5 | *2.93* |
| Portugal | 0 | **4** | 4 | 4 | 4 | *0* | 0 | 0 | 4 | 2 | 2 | *1.3* | 14 | 11.33 |
| Spain | 0 | 0 | 0 | **4** | 0 | 0 | 0.8 | **1.6** | 4 | *0* | 1 | **4** | 5.8 | **9.6** |
| Sweden | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 4 | 4 | 1.33 | 2.66 | 5.33 | **11.66** |
| UK | 0 | **4** | 4 | 4 | 0 | **4** | 2.4 | *1.6* | 4 | 4 | 1 | *0* | 11.4 | **17.6** |
| **Average** | 1.333 | **2.93** | 1.87 | **2.67** | 1.87 | *1.87* | 1.747 | **2.12** | 2.8 | *1.4* | 1.733 | *1.7* | 11.35 | **12.67** |

Note: Changes from 1991 to 2001 that increase the index appear in **bold,** while changes that decrease the index appear in *italics.* Data are from Von Hagen (1992) and Hallerberg, Strauch, and von Hagen (2001).

*Long-term Planning Constraint*

The fifth item concerns the extent to which a country uses multi-annual budget plans. The expectation in von Hagen (1992) is that there may a time-inconsistency problem in budgeting. Over the long-term, decision-makers may all want to have fiscal discipline. In the short-term, however, they have reason to renege and to pass additional spending to win elections, guarantee passage of a key bill in parliament, etc.

The long-term planning index has four components. The first question asks whether there is a multi-annual target, and, if so, what form that target takes. Countries with no targets receive a zero, those that focus on either total expenditures or total taxes receive a two, and those that have total budget size as their target receive a four. The second item concerns the time horizon of the plan, which a two-year plan receiving a one sequentially to a five-year plan that receives a five. The third question concerns the nature of budget forecasts. If they are ad-hoc, the country receives a one, while if they are updated based on a consistent macro-economic model they are scored a four. Finally, and crucially, one wants to know the government's commitment to multi-annual targets. Targets for internal-orientation only receive a one, while strong political commitment (such as plans written into coalition agreements) receives a four.

Before looking at the figures, one can expect a large improvement in this index because of the Stability and Growth Pact. All states must submit yearly Stability or Convergence Programmes

that provide estimates for the budget balance and for macro-economic developments for a span of five years (t-1 to t+3), and, after submitting the initial Programme, states must submit yearly updates. The nature of the target, therefore, improves to the highest score in all cases, and the length of the plan is a minimum of three (forward-looking) years. States also connect their plans to macro-economic models as a rule.[10]

Table 5 displays the rules in place concerning long-term constraints, and indeed the changes over the past ten years have been fairly dramatic for this index. The numbers in **bold,** which indicate that the value for the sub-index has increased, appear throughout the table. With a possible maximum score of 16, the average has increased from 7.6 to 13.5. The changes are most dramatic for Belgium and for Luxembourg, which moved from the minimum possible score (0) to the maximum possible score (16).

## Table 5: Long-term Planning Constraints

| Country | Multi-annual Target | | Planning Horizon | | Nature of Plan | | Degree of Commitment | | Sum Long-Term | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 |
| Austria | 2 | **4** | 2 | 2 | 1 | **4** | 2 | **3** | 7 | **13** |
| Belgium | 0 | **4** | 0 | **4** | 0 | **4** | 0 | **4** | 0 | **16** |
| Denmark | 2 | **4** | 2 | **3** | 2 | **4** | 2 | 2 | 8 | **13** |
| Finland | 4 | 4 | 3 | 3 | 4 | **4** | 3 | 3 | 14 | 14 |
| France | 0 | **4** | 1 | **2** | 1 | **4** | 1 | **3** | 3 | **13** |
| Germany | 4 | 4 | 3 | 3 | 4 | **4** | 3 | 3 | 14 | 14 |
| Greece | 0 | **4** | 2 | 2 | 1 | **4** | 2 | 2 | 5 | **12** |
| Ireland | 4 | 4 | 4 | *2* | 1 | **4** | 3 | *2* | 12 | 12 |
| Italy | 4 | 4 | 3 | 3 | 1 | **4** | 3 | *2* | 11 | **13** |
| Luxembourg | 0 | **4** | 0 | **4** | 0 | **4** | 0 | **4** | 0 | **16** |
| Netherlands | 4 | **4** | 4 | *3* | 2 | 2 | 4 | 4 | 14 | *13* |
| Portugal | 0 | **4** | 3 | *2* | 1 | **4** | 2 | **4** | 6 | **14** |
| Spain | 0 | **4** | 4 | *3* | 1 | **4** | 1 | **2** | 6 | **13** |
| Sweden | 0 | **4** | 0 | **2** | 1 | **4** | 0 | **4** | 1 | **14** |
| UK | 2 | **4** | 4 | *2* | 4 | 4 | 3 | 3 | 13 | 13 |
| **Average** | 1.7 | **4.0** | 2.3 | **2.7** | 1.6 | **3.9** | 1.9 | **3.0** | 7.6 | **13.5** |

Note: Changes from 1991 to 2001 that increase the index appear in **bold,** while changes that decrease the index appear in *italics.* Data are from Von Hagen (1992) and Hallerberg, Strauch, and von Hagen (2001).

*Relationship between National and Sub-National Governments*

[10] The Netherlands had been a partial exception. Under the Kok (1998-2002) coalition the government initially agreed to base all planning on an assumed 2.25% real growth rate. For 2001, however, the country decided to use a higher forecast of 4% real growth. This year was exceptional, however, so the Netherlands is scored a two for the nature of the constraint.

There is a final category of data that Von Hagen (1992) covers but that does not appear in the formulation of his index that deserves comment, namely the relationship between national and sub-national governments. The Maastricht defines debt as general government debt, not just central government debt, and states may have taken measures to control the running of deficits and debts at the sub-national level. Table 6 compares whether there were balanced budget requirements at the sub-national level, whether the national government can restrict borrowing at the sub-national level, and whether the various levels of government negotiate internal stability pacts that specify the level of debts each level of government is allowed to run in a given year. One can see that the relationship has tightened over ten years. Sweden introduced a balanced budget requirement for local government. Three countries added the ability of the central government to restrict borrowing, while another three added negotiated internal stability pacts. The only two countries that do not have one of these three restrictions on sub-national borrowing in place are Finland and Germany.

## Table 6: Relationship between National and Sub-National Governments

| Country | Balanced Budget Required, Regional Governments | | Central Government Can Limit Borrowing | | Internal Stability Pact Negotiated Between Natl and Subnatl Govt | |
|---|---|---|---|---|---|---|
| | 1991 | 2001 | 1991 | 2001 | 1991 | 2001 |
| Austria | No (?) | No (?) | No | No | No | Yes |
| Belgium | Yes | Yes | Yes | Yes | No | **Yes** |
| Denmark | Yes | Yes | Yes | Yes | Yes | Yes |
| Finland | No | No | No | No | No | No |
| France | Yes | Golden Rule | Yes | Yes | No | No |
| Germany | Golden Rule | *No* | No | No | No | No |
| Greece | Yes | Yes | Yes | Yes | No | No |
| Ireland | No | No | No | **Yes** | No | No |
| Italy | No | No | Yes | Yes | No | **Yes** |
| Luxembourg | Yes | *No* | No | **Yes** | No | No |
| Netherlands | Golden Rule | Golden Rule | No | Yes | No | No |
| Portugal | No | No | No | Yes | No | No |
| Spain | No | No | No | Yes | No | **Yes** |
| Sweden | No | **Yes** | No | No | No | No |
| UK | Golden Rule | Golden Rule | No | **Yes** | No | No |

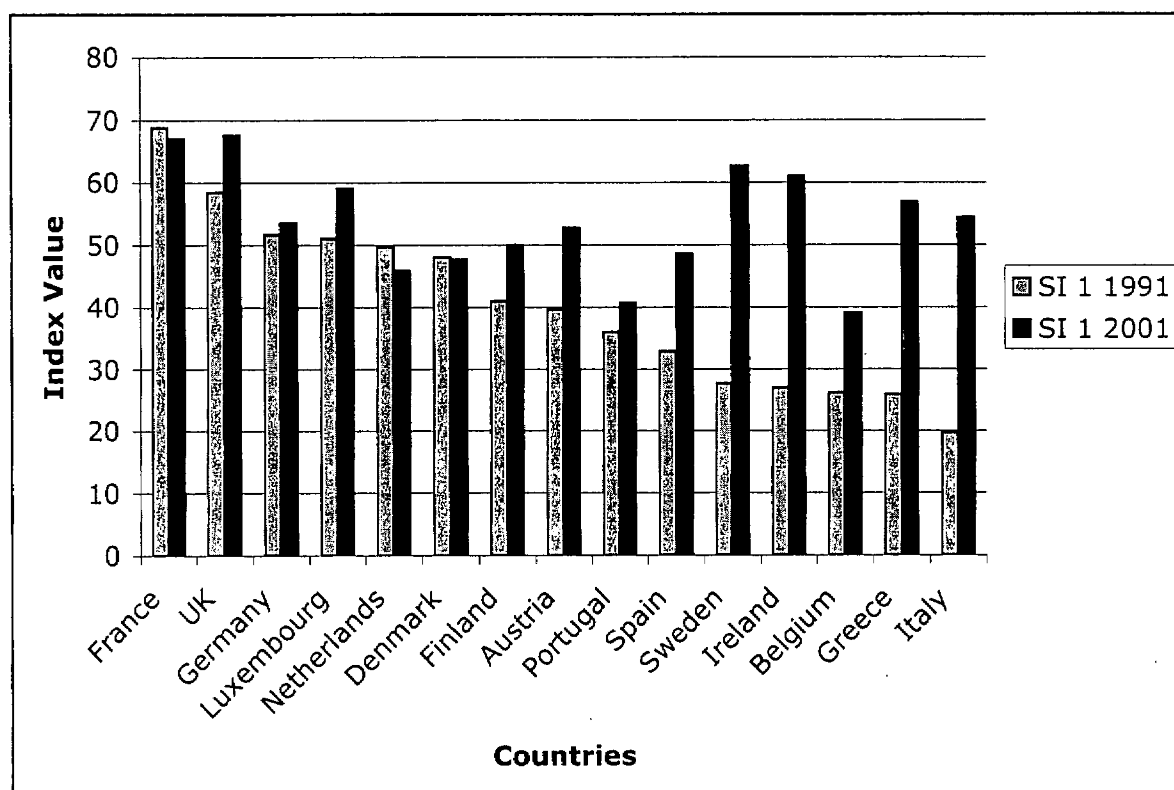
Note: Changes from 1991 to 2001 that increase the index appear in **bold,** while changes that decrease the index appear in *italics.* Data are from Von Hagen (1992) and Hallerberg, Strauch, and von Hagen (2001). It should be noted as well that the second question was worded somewhat more restrictively in von Hagen (1992) than in Hallerberg, Strauch, and von Hagen (2001)—the former asked whether sub-national governments must get central government authorization to borrowing, while the latter asked whether the government can restrict sub-national borrowing. The latter subsumes the former.

*Summary of Changes*

Von Hagen (1992) prepares three aggregate indices to measure the structural constraints that fiscal rules represent. They all perform equally well in the empirical analysis, with an increase in

the aggregate structural index leading to increased fiscal discipline. Here I add together the totals presented in Tables 1-4, which aggregate the structure of negotiations within government, the parliamentary stage, the informativeness of the budget draft, and the flexibility of the budget. Together they constitute Structural Index 1 in Von Hagen (1992). Figure 1 presents the states according to their rank ordering in 1991. Twelve of fifteen have higher values in 2001 than in 1991. The largest changes occurred in the countries with the lowest aggregates in 1991, with Greece, Italy, and Sweden all more than doubling their scores. The United Kingdom has the highest score at 67.6, followed closely by France at 66.99. Belgium has the lowest score at 39, followed by Portugal at 40.66 and the Netherlands at 45.93.

**Figure 1: Comparison of Aggregate Structural Index, 1991 and 2001**




Structural Index 1 is computed according to von Hagen (1992).

## Forms of Fiscal Governance and the Structural Index

So far this paper has treated all countries the same in the computation of the various indices to represent the fiscal rules used in European Union countries. There is reason to believe, however, that the form of fiscal governance affects the efficacy of different rules. That is, some fiscal rules, such as strengthening the position of the finance minister, may be necessary to ensure fiscal discipline in one country but not in another. Previous research indicates that there are two ideal forms of fiscal governance that can address the common pool resource problem that arises in all governments, *delegation* and *commitment*. Under *delegation*, a finance minister plays a central role in the making of the budget, including in setting any budgetary targets for the government. She

maintains a strong position in all budget negotiations, in the monitoring of spending minister behaviour, and in making adjustments to the budget during the implementation stage. In contrast, under *commitment* the spending ministers or, more likely, their political parties negotiate at the formation stage of the budget targets for the government that amount to fiscal contracts for the ministers. The finance minister in such countries may still play an important role, but that role is to enforce the pre-existing contract. Both of these forms of governance appear under majority governments where the government is usually assured of getting legislation passed through parliament once the government determines its policy.

The two ideal forms of fiscal governance are not the only forms that appear in practice—a *mixed* form that combines attributes of *delegation* and *commitment* appears in countries with minority governments. In such countries, a government decision on the budget does not necessarily determine the shape of the budget. The government must engage in an additional stage of negotiations with one or more opposition parties. A finance minister can therefore coordinate ministers within the government, and the decision-making procedures within the government approximate *delegation*. A *commitment* to a fiscal contract among the government and relevant opposition parties, however, is also necessary so that the centralizing that the finance minister does in the government does not unravel in parliament.

One can divide the Member States of the European Union according to the type of fiscal governance one would expect in each country. *Delegation* works effectively in countries where the partners in government are comfortable delegating such power to one central actor (Hallerberg and von Hagen (1999); Hallerberg 2003). In practice, such countries either have one-party majority governments or have governments with parties who are closely aligned to one another and will almost always participate in elections as one block. Examples of delegation states with one-party government among European Union countries include Greece, the United Kingdom, and Spain, while examples of delegation in countries with electoral blocks are France and Germany. Table 6 breaks down the European Union countries according to these categories. It also further divides states into minority and majority governments.

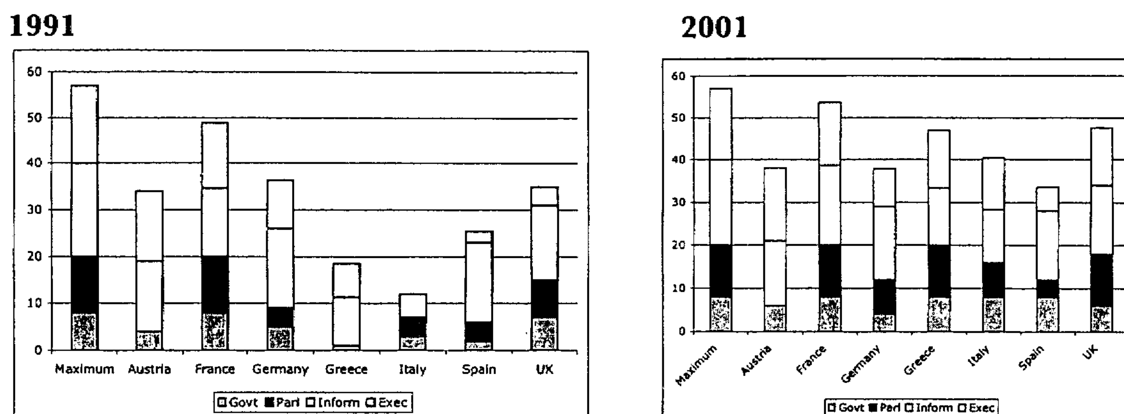
One can use these forms of fiscal governance to re-evaluate the coding of fiscal rules presented here. I create sub-indices from our data that measure fiscal rules that are most appropriate. I also measure the degree to which a given state that should have delegation deviates from the ideal score. The expectation is that countries that have the fiscal rules that fit their expected form of fiscal governance will have better fiscal performance than countries that do not have the appropriate fiscal rules.

## Table 6: Type of Governments in European Union Countries, 2001

| | One Party/Bloc Government | Multi-Party Government |
|---|---|---|
| **Majority** | *Delegation States*<br><br>Austria<br>France<br>Germany<br>Greece<br>Italy<br>Spain<br>United Kingdom | *Commitment States*<br><br>Belgium<br>Finland<br>Ireland<br>Luxembourg<br>Netherlands |
| **Minority** | *Mixed States*<br><br>Denmark<br>Portugal<br>Sweden | *Commitment States* |

In *delegation* states, the expectation is that fiscal rules that strengthen the finance minister make *delegation* more effective. There are nine rules that reinforce the finance minister in our study. At the government stage, granting the finance minister agenda-setting control and assuring that budget negotiations are held bi-laterally between the finance minister and spending ministers increase the sub-index. At the parliamentary stage, it is important that spending minister are not able to by-pass the finance minister through amendments from parliamentary allies. Limits to amendments, requirements that amendments be offsetting, and the requirement that amendments can cause the fall of the entire government all reinforce the finance minister. At the implementation stage, the relevant rules are: the finance minister can block expenditures; there are cash limits; the finance minister must approve the disbursement of spending; and limits to transfers. Finally, a more transparent budget makes it easier for the finance minister to monitor the spending ministers; the complete transparency index is included as well. A country that receives a perfect score for all of these dimensions would receive 57 points.

**Figure 2: Fiscal Rules for Delegation States, 1991 and 2001**




The following questions are used to create the *delegation* index—Government Stage: agenda control and budget negotiations; Parliamentary Stage: limits to amendments, offsetting amendments, amendments cause fall of government; the full Informativeness Index; Implementation Stage: finance minister can block expenditures, cash limit, disbursement of spending, and limits to transfers.

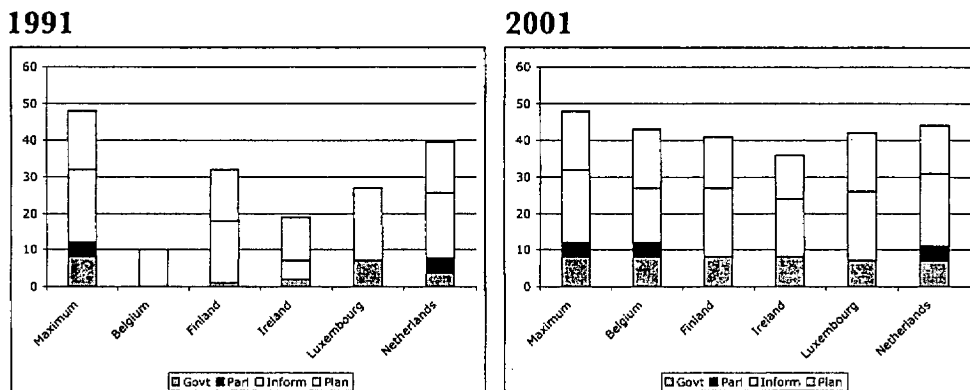
Figure 2 contrasts the maximum number of points a given *delegation* country could have received in 1991 and 2001 with the actual points. There are several clear trends. First, more countries fit the ideal delegation profile in 2001 than in 1991. In 1991, only France approximated the ideal, while in 2001 Greece and the United Kingdom also did as well. One can also see a general improvement at the parliamentary stage, which is second bar from the bottom. All but Austria and Spain tighten parliamentary rules. Austria, in fact, is a clear outlier at the parliamentary stage with no rules that one would expect in *delegation* states. There is a similar broad tightening of fiscal rules at the execution stage, which is the top portion of the bar. Italy is most exemplary here, moving from a score of zero to a maximum score of twelve. In terms of informativeness, there is not as much change, although Italy clearly improves relative to its position in 1991. In contrast, when looking at the aggregate levels Germany backslides somewhat. This weakening of the German position can be seen in relative terms in the aggregate *delegation* index as well—while Germany finished second to France in 1991, it finished second to last to Spain in 2001.

In contrast to *delegation* states, *commitment* functions well where coalition governments among parties that may run against each other in future elections are the norm. The Netherlands is a classic case of *commitment* to fiscal contracts. After elections coalition partners negotiate budgetary targets and enshrine them in the coalition agreement. They then follow this agreement for the life of the coalition. Belgium provides an alternative model. An institution called the High Council of Finance sets the broad multi-annual budget plan. The coalition agreement among the parties in government then commits them to fulfill the multi-annual budget programme from the High Council of Finance.

There is little need for a strong finance minister as in *delegation* states. Instead, detailed, clear rules that define the contract and ensure its implementation lead to better fiscal discipline. In practice, at the governmental stage a more detailed general constraint and more detailed budget norms mean that there is a better-developed fiscal contract in place. At the parliamentary stage, a total vote on the budget at the beginning of the process represents a parliamentary approval of

the contract. It makes it more difficult for parliamentarians to rewrite the agreement among the parties. At the same time, there is little need to restrict amendments because the key decisions are made already in coalition negotiations. The more informative the budget the easier it is for the coalition partners to monitor each other, so again the full informativeness index is included. The items measured as part of the execution stage of the budget all help the finance minister, and are not important in *commitment* states. The long-term planning sub-index, however, is indeed relevant because it addresses the durability of the contract. Multi-annual targets, the length of the planning horizons, the nature of multi-annual plans, and the degree of commitment to these plans are all relevant factors. A state with a perfect score would receive 48 points.

**Figure 3: Fiscal Rules For Commitment States**



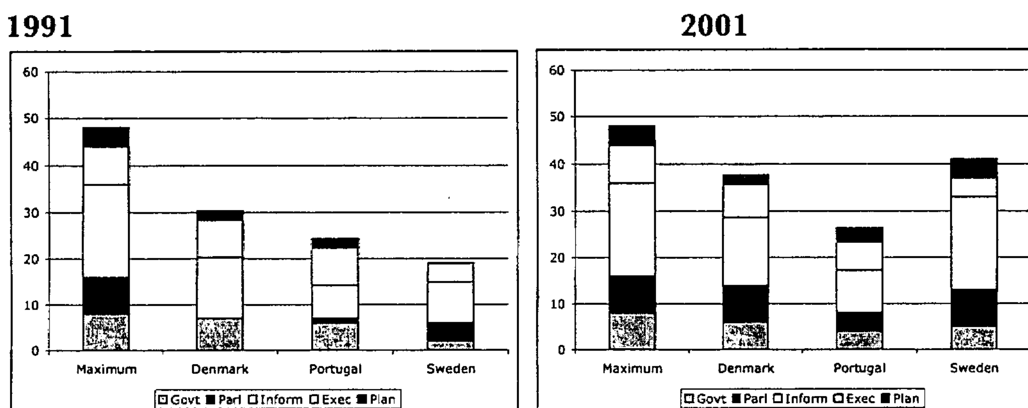

The following questions are used to create the *Commitment* Sub-index—Government Stage: general constraint, budget norms; Parliamentary Stage: vote on total budget; all items of the Informativeness Index; Planning Stage: multi-annual targets, planning horizon, Nature of Plan, Degree of Commitment.

Figure 3 compares the sub-index for commitment states in the two time periods. The Netherlands was the only country in 1991 that approached the ideal, while Belgium had none of the expected fiscal rules in place for all categories but Informativeness. By 2001, however, Belgium had clearly made the most reforms, with its fiscal rules fitting exactly what would be expected for the government, parliament, and planning stages. Ireland improved budget-making rules at the government stage and especially in informativeness, but in comparison to other states in the group it initiated fewer reforms, and in 2001 it had the lowest score of the group. In general, however, there is a clear improvement in the use of fiscal rules appropriate for a commitment form of fiscal governance.

The final governance sub-index considers fiscal rules in *mixed* states. Fiscal rules that strengthen the finance minister at the government stage make the mixed form more effective. A finance minister who sets the budgetary agenda and negotiations that are bi-lateral between the finance minister and individual spending ministers both increase the sub-index. At the parliamentary stage, a vote on the total budget first sets the guidelines so that opposition parties do not support additional spending above what is agreed to in any fiscal contract between the government and the opposition. Whether an amendment to the budget can cause a fall of the government is coded in the *reverse* direction than what is coded under majority governments. The rationale for this change is as follows. Under majority governments, the only way the budget can fail is if parliamentarians from one of the government parties votes against its government's own budget.

A rule that budget amendments can lead to the fall of the government therefore strengthens party discipline behind the government, and, in *delegation* states, supports the initial centralization that a finance minister does at the governmental stage. Under minority governments, however, such a rule leaves the government subject to the functional equivalent of fiscal blackmail. By definition, a minority government does not have enough votes to remain in office with votes from its supporting parties. A single amendment that the opposition parties can unite to support would bring down the government if this rule is in place, and, to avoid this situation, the government may make concessions it would not make without this rule.[11] As under the other forms of fiscal governance, more transparency of the budget process improves fiscal discipline. At the execution stage, cash limits and restrictions on the change of the budget make it more likely that any fiscal contract with the opposition is kept. Finally, at the planning stage of the budget, such contracts that have legal status make it more difficult to change the contract and hence increase fiscal discipline.

**Figure 4: Fiscal Rules For Mixed States**




The following questions are used to create the *Mixed* Sub-Index—Government stage: agenda control and budget negotiations; Parliamentary stage: total vote on budget, amendments cause fall of government (where this is not the case the country is scored a 4); Implementation stage: Cash Limit, No Changes to the Budget during the Year; Planning Stage: Degree of Commitment.

Figure 4 compares the sub-index for *mixed* forms of fiscal governance in the three countries that have regularly had minority governments in the 1990's. In 1991, there was a clear ranking of the countries, with Denmark coming first followed by Portugal then Sweden. Even Denmark, however, had a score of only approximately 60% of the maximum. By 2001, Denmark's rules approached the ideal level for *mixed* states, while Sweden made significant changes to its fiscal system to come close to Denmark. Portugal, in contrast, made less progress over the ten years, and it has the weakest fiscal rules in place among *mixed* states.

*Fiscal Rules and Fiscal Performance*

The exercise presented above that compares the evolution of fiscal rules is pointless if the fiscal rules do not have a real impact on fiscal policy outcomes. Von Hagen (1992) finds that structural features of the budgetary process affect budget discipline in the 12 countries that composed the

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[11] Green-Pedersen (2001) documents how this rule led to a series of lapses in fiscal discipline in Denmark, as well as how the change in the rule buttressed the government's negotiating position.

European Community in 1992. This paper asks two questions. First, does the structural index continue to have the same effect on fiscal policy in the late 1990's? Second, the premise behind constructing sub-indices according to the form of fiscal governance is that fiscal rules are not equally effective in all countries. I would expect the sub-indices to perform as well as, or better than, the straightforward structural index that treats the use of fiscal rules the same.

To examine these questions, I standardize the values for the respective indices to range between zero and one. For forms of fiscal governance, I create two indices. I weight the different parts of the budget process equally, then we divide the aggregate indices displayed in Figures' 2-4 by the maximum value possible for each stage of the budget to create one variable, Form of Governance Index, that measures the extent to which a country's fiscal rules fit the ideal for its form of fiscal governance.[12] I also standardize the original structural index based on the coding in Von Hagen (1992), known as Structural Index 1, and that appears in Figure 1. Table 7 displays the standardized aggregates according to the two measures. The paper argued earlier that the reason to consider forms of fiscal governance sub-indices is that the general structural index may not be an appropriate measure for all countries. Indeed, the Table indicates that a country like Belgium, which has the weakest fiscal institutions in 2001 according to Von Hagen's (1992) general structural index (a score of .51) has the second strongest fiscal institutions in place when considering what works best under *commitment* (a score of .94). One would *a priori* expect that the two aggregate indices would not be highly correlated. Indeed, in 2001 they are not—the correlation is only .19. Yet for 1991 the correlation between the two indices is extremely high at .90. Table 7 explains the pattern. In 1991, few states that were not *delegation* states had high scores broken down according to the form of fiscal governance. In contrast, *delegation* states like France, Germany, and the United Kingdom had relatively high scores. These states also had high scores on the general structural index. The pattern changes by 2001 after non-*delegation* states like Belgium, Denmark, and Sweden had introduced significant reforms of their fiscal rules. It is no longer that case that countries with high scores on the general structural index also have high scores on the weighted governance index. Indeed, when compared according to this latter index, the reforms in *commitment* states were more consequential than in *delegation* states prior to Stage III of EMU.

[12] A practical example may be helpful. For Austria in 1991, the equation is FisGovtIndex=.25*(4/8)+.25*(0/12)+.25*(15/20)+.25*(15/17). The weighting is necessary because there is more information about some parts of the process than others, and one should not privilege one part of the budget process over another.

## Table 7: Comparison of von Hagen Structural Index 1 and Weighted Goverance Index (Standardized)

| | Von Hagen Structural Index 91 | Weighted Governance Index 91 | Von Hagen Structural Index 01 | Weighted Governance Index 01 |
|---|---|---|---|---|
| **Delegation** | | | | |
| Austria | 0.52 | 0.53 | 0.68 | 0.63 |
| France | 0.89 | 0.89 | 0.87 | 0.95 |
| Germany | 0.67 | 0.61 | 0.69 | 0.63 |
| Greece | 0.34 | 0.27 | 0.74 | 0.87 |
| Italy | 0.26 | 0.24 | 0.71 | 0.75 |
| Spain | 0.43 | 0.39 | 0.63 | 0.62 |
| UK | 0.76 | 0.64 | 0.88 | 0.84 |
| **Average** | 0.55 | 0.51 | 0.74 | 0.75 |
| **Commitment** | | | | |
| Belgium | 0.34 | 0.13 | 0.51 | 0.94 |
| Finland | 0.53 | 0.46 | 0.65 | 0.71 |
| Ireland | 0.35 | 0.31 | 0.79 | 0.64 |
| Luxembourg | 0.66 | 0.47 | 0.77 | 0.71 |
| Netherlands | 0.64 | 0.81 | 0.60 | 0.92 |
| **Average** | 0.50 | 0.44 | 0.66 | 0.78 |
| **Mixed** | | | | |
| Denmark | 0.62 | 0.61 | 0.62 | 0.77 |
| Portugal | 0.47 | 0.55 | 0.53 | 0.59 |
| Sweden | 0.36 | 0.34 | 0.81 | 0.83 |
| **Average** | 0.48 | 0.50 | 0.65 | 0.73 |

To examine the effects of fiscal rules in a multi-variate framework, I examine how they impact changes in the gross debt burden as a percent of GDP. Gross debt burdens are more readily comparable across countries than other measures, such as the budget balances, and for this reason they are the dependent variable of choice in many studies (Alesina and Roubini 1997; De Haan and Sturm 1997; Hallerberg and von Hagen 1999). I include economic growth and debt servicing costs as control variables. I also use a lagged dependent variable because of auto-correlation and panel-corrected standard errors that correct for contemporaneous correlation.[13]

The time period considered in the regressions is also important. There may have been a Maastricht effect on the making of budgets in the mid-1990's as countries sought to qualify for participation in Economic and Monetary Union. Countries were expected to get their budget deficits below 3% of GDP. Furthermore, there are two cross sections of data on fiscal rules, or data for 1991 and 2001. Fiscal rules were fairly stable through the 1980's, and much of the changes that one observes in this paper were introduced in the mid-1990's.[14] I therefore break the regressions into two time periods. Regressions (1) and (2) consider the time period 1981-94,

[13] Hallerberg and von Hagen (1999) include additional political variables, such as the partisanship of the government, the number of party veto players, and changes in government. Including the variables here has no substantial effect on the effects of the structural indices reported here.

[14] See Hallerberg (2003) for a detailed discussion of fiscal rule changes in the EU 15.

while regressions (3) and (4) evaluate 1998-2001. The only difference between (1) and (2) and between (3) and (4) is the use of the respective fiscal rule index.

The results confirm that fiscal rules have a significant effect on budgetary performance, although there are differences depending upon the time period. In the 1981-94 period, both aggregate indices for fiscal rules are statistically significant. According to the Von Hagen Structural Index, a move from a country with the lowest standardized index, Italy at .26, to the country with the highest standardized index, France at .89, would lead to a *yearly* drop in the gross debt burden of 1.4 percentage points of GDP. The size of the coefficient for the form of governance index is somewhat smaller, albeit again significant, but the size of the coefficient is related to the overall range of the standardized index. A move from the country with the lowest score, Belgium at .13, to the country with the highest score, France at .89, would lead to yearly drops in the debt burden of 1.5 percentage points of GDP, which is hardly different than the effect of the first structural index.

In the 1998-2001 period, however, there is a notable difference in the effects of the different indices. The original von Hagen structural index has the wrong sign, which suggests that increases in this index lead to *increases* in the debt burden. In contrast, the form of governance index has the expected sign and is statistically significant. A move from the country with the lowest score, Portugal at .59, to a country with the highest score, France at .95, would lead to yearly decreases of the gross debt burden of 1.5 percentage points of GDP.[15]

| Dependent Variable: Δ in Gross Debt/GDP | *(1)* 1981-94 | *(2)* 1981-94 | *(3)* 1998-2001 | *(4)* 1998-2001 |
|---|---|---|---|---|
| Von Hagen Structural | -2.19* | | 2.12 | |
| Index 1 (SI 1) | (1.10) | | (1.64) | |
| Form of Governance | | -1.90** | | -4.23* |
| Index | | (0.73) | | (1.70) |
| Growth | -0.78** | -0.78** | -0.44* | -0.48** |
| | (.13) | (0.12) | (0.20) | (0.19) |
| Debt Servicing Costs | 0.26 | 0.27 | 2.16 | 1.93 |
| | (0.21) | (0.21) | (1.28) | (1.22) |
| Lagged Change in Gross | 0.60** | 0.61** | 0.26 | 0.26 |
| Debt | (0.08) | (.09) | (0.22) | (0.22) |
| Constant | 3.91** | 3.66** | -.94 | 3.80* |
| | (0.93) | (0.75) | 1.03) | (1.61) |
| r-squared | .55 | .55 | .42 | .45 |
| N | 205 | 205 | 60 | 60 |

Economic data for the regressions in (1) and (2) appear in Hallerberg and von Hagen (1999), while data for (3) and (4) come from AMECO Spring 2002. Results are calculated with the *xtpcse* command in Stata 7. Standard errors appear in parentheses. * $p<.05$, ** $p<.01$.

[15] To check for the sensitivity of the results, I also repeated the regressions with von Hagen's (1992) Structural Index 2, which excludes the transparency items, and I considered a governance index excluding transparency items (corresponding to Structural Index 2) and that did not weight the items equally (which corresponds to using the raw scores in Figures 2-5.) In all cases the results did not substantively change.

*Conclusion*

This paper reviews the fiscal rules that current European Union member countries had in place in 1991 and in 2001. This allows one to compare how budgets are made in the year the Maastricht Treaty was signed with a year when twelve of fifteen members participated in EMU. Most countries improved their fiscal rules, with the most dramatic changes in previous laggards like Belgium and Greece. This pattern was not consistent across all countries, however, with Germany and Portugal in particular making no significant aggregate change.

This paper also argues that the form of fiscal governance a country has in place is critical to understanding the effectiveness of fiscal rules. *Delegation* states like France and the United Kingdom, which have either one-party majority governments or coalition governments where parties run in elections together as electoral blocks, need fiscal rules that buttress the position of the finance minister in the budget process. In contrast, *commitment* states like Finland or the Netherlands, which have multi-party coalition governments where the coalition partners oppose each other election after election, need rules that strengthen the credibility of what amount to fiscal contracts they sign with one another. The lesson from these results is that one fiscal rule does not necessarily fit all countries.

Based on the data provided here, it is also clear that the EMU process benefited *commitment* states in particular. Yet one must be careful in claiming too much. This paper documented the changes that were made as well as indicated that countries with the appropriate fiscal institutions have better fiscal performance. It cannot indicate whether Maastricht in particular *caused* the budget reforms. To know more about causation requires case study material for every country.[16]

The paper also has implications for the European Union today. The requirement to submit yearly Stability or Convergence Programs, the increased monitoring of those programs, and greater transparency of the budget process prescribed in the Stability and Growth Pact all likely benefit *commitment* states. The rules-based framework is familiar. Probably more importantly, there are additional institutions at the national level that reinforce the EU-level rules. In contrast, the EMU rules are unlikely to benefit *delegation* states. Some discretion on the part of the finance minister is useful for responding to fiscal shocks (both good and bad) in *delegation* states, and rigid rules from Brussels can undermine the finance minister's position. Moreover, there are simply not the rules at the national level to translate EU level requirements into policy as there are in the *commitment* states. It should be no surprise to observers that states that are currently undergoing an excessive deficit procedure either made few reforms after Maastricht (Portugal, to a lesser extent Germany) or are *delegation* states where adherence to rigid rules are foreign (France, Germany).

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[16] See Hallerberg (2003) for this material.

## Bibliography


Alesina, Alberto, and Nouriel Roubini, with Gerald Cohen. 1997. *Political Cycles and the Macroeconomy*. Cambridge, MA: MIT Press.

Green-Pedersen, Christopher. 2001. "Minority Governments and Party Politics: The Political and Institutional Background to the 'Danish Miracle.'" Max Planck Institut for Societies, Cologne, Discussion Paper 01/1, March.

Lao-Araya, 1997 considers Asia; Stein et al, 1999 and Hallerberg and von Hagen, 1998, Latin America; Strauch 1998 state governments in the US; Gleich 2002 Eastern Europe

De Haan, Jakob, and Jan-Egbert Sturm. 1997. "Political and Economic Determinants of OECD Budget Deficits and Government Expenditures: A Reinvestigation." *European Journal of Political Economy* 13 (December): 739-750.

Hallerberg, Mark. 2003. *The Treaty of Maastricht and the Making of Budgets in Europe 1980-2000.* Book Manuscript, University of Pittsburgh.

Hallerberg, Mark, Rolf Strauch, and Jürgen von Hagen. 2001. "The Use and Effectiveness of Budgetary Rules and Norms in EU Member States." Report Prepared for the Dutch Ministry of Finance, July. 111 pages. Available for download at http://www.minfin.nl

Hallerberg, Mark, and Jürgen von Hagen. 1999. "Electoral Institutions, Cabinet Negotiations, and Budget Deficits within the European Union." in Poterba, James, and Jürgen von Hagen, Eds. *Fiscal Institutions and Fiscal Performance.* Chicago: University of Chicago Press: 209-232.

Lao-Araya, Kanokpan. 1997. "The Effect of Budget Structure on Fiscal Performance" A Study of Selected Asian Countries." International Monetary Fund Working Paper, Washington, D.C.

Stein, Ernesto, Ernesto Talvi and Alejandro Grisanti. 1999. "Institutional Arrangements and Fiscal Performance: The Latin American Experience" in *Fiscal Institutions and Fiscal Perfomance.* Poterba and von Hagen (eds.) (Chicago: The University of Chicago Press).

Strauch, Rolf. 1998. "Budget Processes and Fiscal Discipline: Evidence from U.S. States." University of Bonn. Typescript.

Strauch, Rolf, and Jürgen von Hagen, Eds. 2000. *Institutions, Politics and Fiscal Policy.* Kluwer.

Von Hagen, Jürgen. 1992. "Budgeting Procedures and Fiscal Performance in the European Communities." *Economic Papers* 96.