Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn

Jürgen von Hagen

Budgeting Institutions for Aggregate Fiscal Discipline

Working Paper

B98-01
1998

I. Introduction

A fundamental characteristic of public finances is that they involve spending decisions over other people's money. Above the level of local administrations, governments do not, or only to a very limited extent, act like businesses that charge customers fees for particular activities. Instead, those who benefit from a particular program of public policy are generally not the same as those who pay for it. This incongruence moves distributional issues, i.e., the question of who pays and who benefits, to the center of decision making in public finances.

Distributional conflicts have received much attention in efforts to explain the high and rising levels of public debts and deficits observed since the early 1970s in many countries around the world. Figure 1 illustrates these trends for various countries. For a number of reasons, these developments are difficult to explain on the basis of conventional economics.

According to Keynesian economics, fiscal policy is an important tool to control the level of aggregate demand in the economy. Governments should run deficits in times of recessions and surpluses in times of prosperity to stabilize the economy. The incipient deficits in the oil-crisis of the 1970s fit this prescription, but their persistence does not. Neo-classical economics, in contrast denies the stabilizing potential of fiscal policy. According to this theory, however, taxes cause distortions in the labor market, and the welfare costs of these distortions increase when tax rates are changes frequently. Governments faced with an unavoidable, yet temporary rise in spending, e.g., the response to a natural disaster or war, should, therefore, engage in *tax smoothing*, i.e., they should raise tax rates only by a small amount and run deficits until the need for extraordinary spending has disappeared. These governments would then run surpluses in normal times to repay their debts (Barro, 1979). Again, the persistence of the observed deficits does not fit this prescription, nor does the observation of large deficits in peace-times bode well with this view that tax-smoothing should be applied in times of national emergencies.

One might argue that the increase in government debt during the 1970s was a response to low real interest rates, hence a low cost of borrowing. But the extent to which governments base their borrowing decisions on the level of real interest rates in practice is much in doubt. Furthermore, the argument does not fit the 1980s and 1990s, when real interest rates were much higher than in the 1970s. Finally, as Figure 1 shows, there is a large degree of variation in the fiscal performance across countries with relatively similar economic structures and environments; a variety that the conventional arguments cannot explain.

The failure of conventional economics to explain these observations has sparked interest in explanations of a political-economy nature focusing on distributional conflicts. Key questions here are (1) can we explain large public deficits by political factors, and (2) can we explain differences in the fiscal performance of different governments by differences in the institutions governing their fiscal policies. Recent literature has developed positive answers to both questions. After shortly reviewing the arguments under the first question, this paper will focus on the second one. The main message is that institutions shaping the budget process of a country are an important factor in determining that country's level of public deficits and debts. The implication is that institutional reform of the budget process provides important protection against large deficits and debts.

A number of recent examples highlight the relevance of and public interest in the budget process. In the US, much of the political efforts to reduce the federal deficit focused on institutional design: the Gramm-Rudman-Hollings Act which imposed deficit targets on the federal budget, the Budget Enforcement Act which protects the budget agreements between the President and Congress against subsequent amendment, and, most recently, the strife for a Balanced Budget Amendment. In Europe, compliance with the fiscal norms of the Maastricht Treaty became a precondition for entering the European Monetary Union; national differences in the translation of these norms into the domestic budgeting institutions of the member states explain much of the differences in the success of reaching the norms.

II. Deficits and „Raw“ Politics: A Brief Review

The first strand of literature attempts to explain large government deficits as the result of "raw" politics, i.e., political processes defined entirely by political incentives of the parties in government with no consideration to the institutional environment. Large deficits are an indication of a government□s inability to decide who should pay the cost of its activities. Governments that are politically weak or unstable use the option of deficits to postpone that decision.

This view identifies a number of political fundamentals leading to large deficits: a high degree of political polarization among the electorate, coalition governments consisting of a large number of parties, and unstable coalition governments. Members of the executive who expect to lose their positions do not anticipate dealing with the consequences of their actions, and increase public debts beyond what they would choose otherwise.1 Governments expecting to lose power soon to an opposition with very different spending priorities may chose to run large deficits, because the increase in debt service constrains the spending choices of the opponent (Tabellini and Alesina 1990). Coalition governments are less able to deal with negative fiscal shocks as they face an internal prisoner's dilemma in allocating the budget cuts. Individual coalition partners may have sufficient power to block changes in spending, but not enough leverage to effect changes in revenues (Roubini and Sachs, 1989; Alesina and Perotti, 1995). As electoral systems of proportional representation (PR) tend to produce coalition governments, while plurality systems produce single-party governments (see below), this literature concludes that PR systems have a deficit bias; a conclusion that motivated Italy's revision of the electoral system in the early 1990s.

These conjectures have received much interest, but their empirical support has been uneven at best. Roubini and Sachs's (1989) estimates suggest that countries with PR systems tend to have higher deficits. In a reconsideration of their dataset, however, Edin and Ohlsson (1991) find that minority governments, rather than PR states per se, are more likely to run large budget deficits. Alesina and Perotti (1995) confirm a link between coalition governments and low success rates in the implementation of fiscal consolidations, but discover that minority governments are the most fiscally responsible form of government in their sample. De Haan and Sturm (1994), in a pooled time-series analysis of European countries, find no

1 . Persson and Svensson 1989; Roubini and Sachs 1989; Alesina and Tabellini 1990; Grilli, Masciandaro, and Tabellini 1991; Hahm 1994.

statistically significant relationship at all between the form of government and budget deficits. Lambertini (1997) finds no empirical support for the hypothesis that governments in OECD countries run larger deficits when they are likely to be voted out of office. Overall, the empirical evidence produced under this argument has shown little robustness. One weakness is quite obvious: To explain the emergence of large deficits in the 1970s and 1980s, this literature would have to show that political polarization and instability of government increased in that period over the 1950s and 1960s.

In one sense, the empirical failure of this literature is good news: Since political fundamentals of the kind considered here are very hard to change, this literature provides little hope for improving the fiscal performance of governments.

III. Political Economy of Government Budgeting

This brings us to the second approach mentioned above. Here, the political fundamentals are taken as given. The focus is instead on the institutional environment in which decisions regarding public finances are made. The idea is not to deny the importance of political fundamentals; rather, it is that decision making rules and institutions are important determinants of fiscal performance. Such institutions shape the effect political fundamentals have on fiscal choices and outcomes; and at the same time, the effectiveness of institutions depends on political fundamentals.

The budget process is the center of the attention under this approach. In the broadest sense, the budget process is a system of formal and informal rules governing the decision making process that leads to the formulation of a budget by the executive, its passage through the legislature, and its implementation. These rules divide this process into steps, determine who does what and when and regulate the flow of information among the participants. The budget process thus distributes strategic influence and creates or destroys opportunities for collusion. The chief *constitutional function* of the budget process is to be the locus of conflict resolution between competing claims on public finances (Wildavsky, 1975).

Budget processes must deliver two types of decisions simultaneously. They must determine the main fiscal aggregates - spending, revenues, and the deficit - and they must provide a solution to the allocation problem of spending and revenues. That these two types of decisions are intricately related to each other is easily understood by contrasting two alternative forms budgeting. With *bottom-up* budgeting, the aggregates follow simply from adding up the appropriations determined individually in the budget process. With *top-down* budgeting, the aggregates are fixed first, and the individual appropriations determined by dividing up these aggregates.2

In this paper, we focus entirely on the aggregates and take the deficit in particular as a measure of aggregate fiscal discipline. The basic hypothesis, developed below, is that the quality of the budget process as a constitutional instrument for conflict resolution is an determinant of the fiscal performance of governments and an important part in securing aggregate fiscal discipline.

A budget process can only fulfil its constitutional role effectively, if all conflicts between competing claims on public finances are indeed resolved within its framework. Four deviations from this principle undermine the functioning of the budget process. The first is the existence of *off-budget funds* used to finance government activities. Off-budget funds allow policy makers to circumvent the constraints of the budget process and remove their decisions altogether from being challenged by conflicting distributional interests. Germany□s experience in the 1990s is a prime example for the adverse consequences of off-budget funds. In the post-unification period, such funds mushroomed and contributed largely to the federal government□s loss of control over public spending (Sturm, 1997).

The second deviation is the spreading of *non-decisions* in the budget process. Non-decisions occur, when expenditures included in the budget are determined by developments exogenous to the budget process. Prime examples are the indexation of spending programs to the price level or aggregate nominal income, and *open-ended* spending appropriations, e.g., welfare payments that are based on

2. According to a popular myth among budgeting practitioners, the top-down approach produces smaller fiscal aggregates and is, therefore, preferable to achieve fiscal discipline. This myth fails to recognize that policy makers realize the constraints for the allocation problem they set at the first stage of the top-down process and are able to increase the aggregate at that stage to make more room for decisions at the subsequent stages. (Ferejohn and Krehbiel, 1987). Experimental evidence shows that sequence and size of the budget aggregates are not systematically linked (von Hagen and Gardner, 1996).

entitlements whose parameters are fixed by simple law or decree, and the government wage bill.[3] Non-decisions conveniently allow policy makers to avoid decisions that would seem "tough" on their constituencies (Weaver, 1986), but degrade the budget process to a mere forecast of exogeneous developments; failures to predict these correctly then become a source of excessive spending and deficits.[4]

The third deviation is the existence of *mandatory spending*, where laws other than the budget make certain government expenditures compulsory. For example, the Italian constitution allows parliament to pass simple laws mandating specific expenditures for which the budget later has to make provision.[5] The budget then becomes a mere summary of the existing spending mandates created by simple legislation. An effective budget process requires a clear distinction between non-financial laws (which create the authorization for certain government undertakings) and the budget, which makes specific funds available for a specific time period.

The fourth deviation occurs when the government enters into contingent liabilities such as guarantees for the liabilities of other public or non-public entities. Promises, implicit or explicit, to bail out subnational governments (as in Germany in the mid-1990s), regional development banks (as in Brazil), or financial institutions (as in the Savings and Loans debacle in the US) can suddenly turn into large government expenditures outside the ordinary budget. While one must recognize

---

3. Note that there is nothing *natural* about determining wage, social security, and welfare expenditures outside the annual budget process. Indeed, setting the relevant parameters is a part of the annual budget process in some countries. Another way to limit the open-endedness of entitlements, used in Denmark, is to set cash limits on welfare appropriations and require the relevant minister to propose spending adjustments and changes in the relevant non-financial laws if these limits are overrun. (von Hagen and Harden, 1994)

4. Where non-decisions prevail strongly, the government budget becomes heavily dependent on institutions outside the annual budget process, i.e., wage setting institutions in the public sector, the social security system, the welfare system, and labor market regulations. Under such circumstances, fiscal discipline becomes heavily dependend on the quality of a country=s institutions outside the budget process as well. Germany=s experience with unification illustrate the point. There, weaknesses in the labor market legislation extended immediately to East Germany allowed unions and employers associations to raise the fiscal cost of unification by reaching wage agreements that kept East German labor from competing for jobs in West Germany, and implied generous unemployment payments to East German workers instead. (See von Hagen, 1997 for details.)

5. A reform of the Italian budget process in 1978 introduced the Financial Act which, preceding the Budget Law, can modify existing expenditure laws. The reform did not, however, succeed in making the budget provess the center of conflict resolution over government finances (von Hagen and Harden, 1994).

that a proper accounting of contingent liabilities is a difficult task, their existence and importance for the government's financial stance can be brought to the attention of decision makers in the budget process by requiring the government to submit a report on the financial guarantees it has entered into as part of the budget documentation.

III.1. Budgeting as a Common Pool Resource Problem

A fundamental characteristic of modern public finances is that government activities tend to be targeted at specific groups while being paid for by the general taxpayer.[6] This is most visible when policy makers represent mainly geographical constituencies, such as in the US. Politicians representing individual electoral districts make all efforts to channel money out of the national government□s tax fund into public policy projects benefiting their districts. As voters living an electoral district do not have to pay the full cost of a particular project while receiving the full benefit, their representatives ask for more and larger projects than they would otherwise. For example, the representative of a local electoral district will appreciate the full value of road improvements for the local economy. But since his district pays only a small portion of the central government's tax revenues, he will ask for more road improvements when the central government pays for them than when they have to be paid for by local taxes.

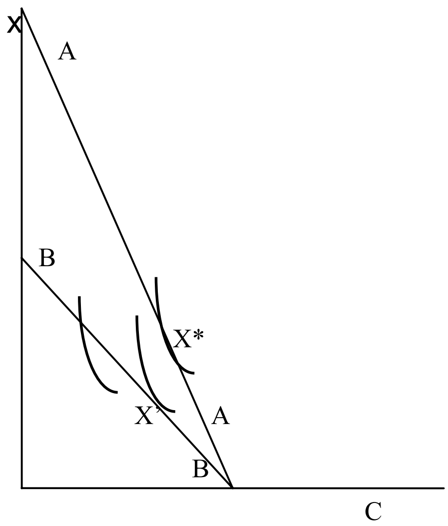
Applying this argument to political systems where political representation is based on functional or other social groups (workers, farmers, or ethnic and religious groups) rather than geography requires a translation of the geographical dimension into one of different constituencies in society. Politicians representing different groups in society spend money taken out of a general tax fund on transfers to different groups in society, farmers, workers and enterprises in different industries,

6.See e.g. Buchanan and Tullock (1962).

home owners, etc.[7] The incongruence between the beneficiaries of individual programs and the general tax payer remains, and with it the tendency to demand more national government spending than each group would ask for if it had to face the full cost of the programs benefiting it.

7. Italy=s experience with growing welfare payments is a prime example for this mechanism. In the past 30 years, Italian politicians used the disability pension system quite openly to buy voter support. See New York Times, Sept. 19, 1997.

Figure 1



Box 1: The Common Pool Problem of Budgeting

Consider a group of N individuals, each of who receive an income y, purchase consumption goods c at a price of one, and pay taxes, t. Each individual also receives a public service x with a unit cost of one, the provision of which is paid out of taxes. Thus, the total revenue required to supply Nx units of the pubic service is T = Nx. All individuals pay the same taxes, t = T/N.
Budgeting now consists of a choice of a level of the public service given the budget constraint. Consider a budget process in which each individual chooses his preferred level of x *given* the choice of the other individuals. Each individual will perceive that the relevant budget constraint for his choice is y - T/N = y - Sum x / N. Therefore, the perceived price for an increase in his level of public service is 1/N. This budget line is the line AA in figure 2. Let the individual's preferences be described by the indifference curve II. Then the choice is the level x*.
Now consider the choice of all other individuals. Since all are the same by assumption, all choose the same level of x. Hence, the equilibrium level is x* for all, and the resulting tax is t = x*. But with this tax, each individual ends up on a lower indifference curve then he perceived to be on in his choice.
The clue to this problem is for each individual to realize that all others are behaving in the same way as he. Therefore, the true price of an increase the level of the public service is 1. That is, the true budget line for each individual has a slope of one, as shown by the line BB. Given this budget line, each individual chooses a lower level of x, x', and the resulting tax is t'= x'. The figure shows that this choice leaves our individual on a higher indifference curve. Decentralized decision making thus entails overspending on public goods and a welfare loss.

The core of the argument then is that public budgeting involves an externality - money from a general tax fund is used to finance projects benefiting particular groups in society. This situation resembles the classic *common pool resource* (CPR) problem in public economics: Many farmers drawing water from the same pool, each considering only his own business, end up overusing the pool. As the source dries up, less water is left for everyone than a wise use of the common pool would have permitted. In the budgeting context, the result is that the central government budget grows too large, and the government□s need for revenues with it. The core of the CPR problem can be explained in the simple example offered in Box 1.

As the example shows, the basic issue is that decentralized decision makers assume themselves to be operating under a wrong budget constraint: Each of them works under the assumption that an increase in spending providing him with more public services will cost him only the fraction of the total expenditure corresponding to his share in total taxes. As a result all decision makers ask for more public services than they would if they realized the true budget constraint, namely that, if all decision makers behave in the same way, each one is charge the full cost of the services demanded. The examples shows two important characteristics of the CPR problem. First, the larger the number of decision makers drawing in the same general tax fund, the steeper is the assumed budget constraint and the more severe is the overspending bias. Second, forcing the decision makers to realize the true budget constraint leads them to make the efficient decision.

Putting this argument into a realistic context, where money can be borrowed to finance current spending, one can show that this externality implies excessive deficits and government debts, too.[8]

III.2. Fragmentation and Centralization of the Budget Process

The analogy of government budgeting with a CPR problem suggests that large government deficits are the result of a *coordination failure*: Decision makers involved in public budgeting fail to account for the full cost in terms of current and future taxes of their spending decisions. We call this lack of a comprehensive view of the cost implications of spending decisions *fragmentation* of the budget process. The opposite of fragmentation is *centralization* of the budget process. A centralized budget process is one that strongly coordinates the spending decisions of individual decision makers and forces them to take a comprehensive view of the budget.[9]

Fragmentation and centralization of the budget process depend critically on

8.See Velasco (forthcoming), von Hagen and Harden (1996).

9.Centralization of the budget process should not be confused with centralizing government, i.e., giving more power to the central compared to local governments.

the quality of its institutional design. Decision making rules in the budget process can increase centralization by forcing decision makers to take the cost an increase in spending favoring their constituencies implies for other constituencies into account. For example, several European parliaments allow their members to propose amendments to the budget proposal on the floor only if the proposal leaves the overall level of spending unchanged. Thus, a member of parliament wishing to raise spending for his constituency is forced to propose whose constituency should pay the bill. Rules of this kind force decision makers to confront each other s distributional interests explicitly and facilitate an efficient solution to the CPR problem through a bargaining process.

III.4. Institutional Elements of Centralization

Budget processes can be proximately divided into four stages, an *executive planning* stage, a *legislative approval* stage, an *executive implementation* stage, and an *ex-post control* stage, see Table 1. Each stage involves different actors with different roles. The executive planning stage usually begins more than a year before the relevant fiscal year and ends with the submission of a draft budget to the legislature. It involves the setting of budget guidelines, bids for budget appropriations from the various spending departments, the resolution of conflicts between the spending interests in the executive, and the drafting of the revenue budget. The legislative approval stage includes the process of parliamentary amendments to the budget proposal, which may involve more than one house of parliament. This stage ends with the passing of the budget law. The executive implementation stage comprizes the fiscal year to which the budget law applies. During the implementation stage, deviations from the budget law can occur, either formally by adoption of supplementary budget laws in parliament, or informally by shifting funds between chapters of the budget law and by overrunning the spending limits provided by the law.

Institutional elements of centralization concern the first three stages, with different elements applying to different stages. At the executive planning stage, the purpose of such elements is to promote an agreement on budget guidelines (spending and deficit targets) among all actors involved, ensuring fiscal discipline. Elements of centralization must at this stage foster consistent setting of such guidelines and assure that they constrain executive decisions effectively. A key element here concerns the way conflicts among members of the executive are resolved throughout the budget process. Uncoordinated and ad hoc conflict resolution involving many actors simultaneously promotes log-rolling and reciprocity and, hence, minimizes centralization. Centralization is increased, if conflict resolution is the role of senior cabinet committees or the prime minister.

At the legislative approval stage, elements of centralization control the debate and voting procedure in parliament. Because of the much larger number of decision makers involved, the CPR problem is even larger in the legislature than in the executive. Fragmentation is maximized, when there are no limits to the changes parliament can make to the executive's budget proposal, when spending decisions are made in legislative committees with narrow and dispersed authorities (*balkanization of committees*, Crain and Miller, 1990), and when there is little guidance of the parliamentary process either by the executive or by the speaker. Centralization, therefore, comes with strengthening the executive's agenda setting power in parliament by placing limits on scope of amendments, controlling the voting procedure, and raising the political stakes of a rejection of the executive's budget, e.g., by making this equivalent to a vote of non-confidence. Centralization also comes with strengthening the role of the speaker and the financial committee in the budget process. In bi-cameral systems, centralization is increased by limiting the budgetary powers of the upper house.

At the implementation stage, elements of centralization assure that the budget law effectively constrains the spending decisions of the executive. One important element of this is strengthening the finance minister's ability to monitor and control the spending flows during the fiscal year. Other important elements are strict limitations on changes of the budget law during the year.

Reviewing elements of centralization in OECD, Latin American and Asian governments reveals that centralization comes in two prototypes. The first is centralization based on *delegation*. Under this approach, individual participants in the budget process that are assumed to have a more comprehensive view of the budget than the remaining ones are vested with special strategic powers that give them a position of strategic dominance. The second approach is centralization based on *contracts*. This approach emphasizes negotiation of binding agreements among all participants, without lending special authorities to any one of them. Table 2 compares these approaches with a fragmented budget process.

IV.4.1. Delegation

With delegation, the budget process lends special authority to a "fiscal entrepreneur" whose function is to set the broad parameters of the budget and to assure that all other participants in the process cooperate. To be effective, this entrepreneur must have the ability to monitor the others, and to use selective punishments against participants unwilling to cooperate with him. Among the cabinet members, the entrepreneur is typically the finance minister. Since the finance minister is not bound by individual spending interests as much as those heading the spending departments, and since the finance minister typically is charged with drafting the revenue budget, it is plausible to assume that the finance minister takes the most comprehensive view of the budget among the members of the executive except, possible, the prime minister. Delegation at the executive planning stage, then, involves vesting the finance minister with special authorities over the other cabinet members.

In practice, this can take a variety of forms. In the French model of delegation, the finance minister together with the prime minister determines the overall allocations of the spending departments. These targets, set out in the *lettre d'encadrement* at the beginning of executive planning stage, are considered binding for the remainder of the process. Here, the finance minister has a strong role as *agenda setter* in the budget process.

In contrast, the German model of delegation gives the finance minister *veto* power in all cabinet decisions with financial implications, this veto can only be overruled by a cabinet majority including the chancelor. In this model, the finance minister can prevent decisions he does not like, but has much less influence in shaping the budget demands of his colleagues.

The British model of delegation, finally, evolves as a series of bilateral negotiations between the spending departments and the finance minister in which the latter bases his bargaining power on superior information, seniority, and the political back-up from the prime minister.

Drafting the budget proposal under the delegation approach is mainly the responsibility of the finance ministry, which monitors the individual bids, negotiates directly with the spending departments and approves the bids submitted to the final cabinet meeting. Unresolved conflicts between individual spending and the finance ministers are arbitrated by the prime minister.

At the legislative stage, the delegation approach lends large agenda-setting powers to the executive over parliament. One important instrument here is limits on the scope of amendments parliamentarians can make to the executive's budget proposal. In Spain, for example, proposals to increase expenditures for one budgetary item can only be received in parliament if they propose an expenditure reduction elsewhere; amendments to reduce taxes cannot be received at all.[10] In France, amendments cannot be received unless they reduce expenditures or create a new source of public revenues. In Britain, amendments proposing new charges on public revenues require the consent of the executive. Such restrictions make the budget constraint being felt more powerfully.

A second element concerns the voting procedure. The French government, for example, can force the legislature to vote on large parts of or the entire budget in a *block vote*, with only those amendments considered that the executive is willing to accept. In the UK, the executive can make the vote on the budget a vote of confidence, thus raising the stakes for a rejection considerably.

A final element concerns the budgetary authority of the upper house. Where both houses have equal budgetary authority, as in Italy or Belgium, finding a compromize between the two houses is a necessary part of the budget process. It can become a lengthy and complicated bargaining process with a tendency to settle on more rather than less spending. This tends to weaken the position of the executive as it now faces two opponent bodies. To strengthen the executive, the budgetary authority of the upper house may be limited as in France, Germany, or

10. Both rules can be disregarded if the executive supports the amendment.

Spain, where the lower house prevails if an agreement between the two chambers cannot be reached. In the UK, the upper house has no budgetary authority at all, leaving the executive with only one chamber to deal with in the budget process. The position of the executive can also be strengthened by giving the finance minister veto power over the budget passed by the legislature, as in Germany and Spain.

At the implementation stage, finally, centralization requires that the finance minister be able to monitor and control the flow of expenditures during the year. This may take the form of requiring that the spending departments obtain the finance minister's authorization to disburse funds (over a minimum amount) during the year. To be effective, this must not be limited to a mere checking of the legal basis of a disbursement, as was the case, e.g., in Italy in the 1980s. The finance minister's authority to impose cash limits during the year is another control mechanism. Monitoring spending flows during the year requires a unified system of financial accounts enabling the finance minister to watch the inflow and outflow of resources. Effective monitoring and control is important to enforce the spending limits on the individual spending departments foreseen in the budget and to prevent them from behaving strategically, i.e., spending their appropriations early in the year to demand supplementary funds later.

Furthermore, centralization requires to limit the scope for changes in the original budget law through the modification of appropriations. One element here is require that transfer within chapters be authorized by the finance minister, and that broader transfers require authorization from parliament. The same applies to transfers of funds between different fiscal years. Although carry-over provisions have obvious efficiency gains, their use should be limited and strictly monitored to assure that the finance minister can keep track of a spending department's financial position. Another element is to restrict the use of supplementary budgets to truly exceptional circumstances. Where supplementary budgets during the fiscal become norm, as in Italy and Belgium in the 1980s and Germany in the 1990s, one cannot expect that policy makers wil take the constraints embedded in the original budget law serious.

III.4.2. The Contract Approach

Under a contract approach, the budget process starts with an agreement on a set of binding fiscal targets negotiated among the members of the executive. Emphasis here is on the bargaining process as a mechanism to reveal the externalities involved in budget decisions and on the binding nature of the targets. In contrast to the hierarchical structure created by delegation, the contract approach relies on a more equal distribution of strategic powers in the executive. A prime example for this approach is the Danish budget process which, since 1982, starts with negotiations among the cabinet members fixing spending limits for each spending department. Often, these spending limits are derived from medium-term fiscal programs or the coalition agreement among the ruling parties. In Ireland, for example, coalition agreements since 1989 included medium term fiscal strategies to reduce the public debt, which provided the background to the annual negotiations over budget targets.

The finance ministry's role under this approach is to evaluate the consistency of the individual departments' spending plans with these limits. As in the Netherlands, for example, the finance minister usually has an information advantage over the spending ministers in the budget negotiations, but no extra strategic powers. Conflict resolution involves senior cabinet committees and often the leaders of the coalition parties in the legislature.

At the legislative stage, the contract approach places less weight on the executive's role as an agenda setter and more weight on the role of the legislature monitoring the faithful implementation of the fiscal targets. Institutionally, this means that the contract approach relies less on controlling parliamentary amendments and more on the legislature's ability to monitor the fiscal performance of the executive. One important element of this is the legislature's right to request information from the executive. It can be improved by setting up committees whose authorities reflect the authorities of the spending departments, and by giving committees a formal right to request information from the executive and to call witnesses from the executive to testify before committees. The Danish parliament, for example, has all three of these rights, while the German parliament conforms only to the first provision and the British parliament to neither one.

At the implementation stage, the contract approach resembles the delegation approach in emphasizing the monitoring and control powers of the finance minister.

IV. Empirical Evidence

As argued above, political economy claims that institutional design of the budget process is an important determinant of aggregate fiscal discipline. A growing body of research now exists to support that claim. Next, we summarize the main results of that research.

IV.1. Measuring Fragmentation and Centralization

Estimating the impact of centralization on aggregate fiscal performance requires a measure of centralization. Early research in this area, while focusing on budget processes on American state governments, took an ecclectic approach, using dummy variables for the existence or absence of specific institutional elements such as amendment restrictions in parliament. This approach is impractical for international comparisons, because the existing data sets are relatively small and institutional elements are often not directly comparable. The ecclectic approach would, therefore, quickly exhaust any degrees of freedom in an econometric analysis.

A more recent literature starting with von Hagen (1992) has, therefore, reverted to the construction of indices measuring centralization. These indices attempt to translate qualitative information about the budget process taken from questionnaires and legal documents into quantitative measures. An immediate implication is that such indices have only an ordinal interpretation, they provide rankings of countries within a sample. A second implication is that indices are sample-specific, index values for countries in different samples are extremely difficult to compare. A third implication is that the index necessarily involves a certain degree of arbitrariness, which makes the existence of several independent studies particularly important.

Index construction generally proceeds as follows. In the first step, information about budget processes is collected from legislative documents and questionnaires completed by finance ministry officials, central bankers and other experts. Next, for each item on the questionnaire, this information is cast in numerical form by assigning numbers to individual types of answers. For example, the question "are there any limits on parliamentary amendments to the executive's budget proposal" could have answers of the following type: no; proposals to increase expenditures must propose a source of increasing revenues; proposals to increase expenditures must propose a cut in expenditures elsewhere, amendments can only reduce expenditures; no amendments can be received. The index would then give zero points to the first answer and an increasing number of points to the following categories.

All indexes used in the literature follow von Hagen (1992) and include a special category measuring the informational quality of the budget process. Here, the focus is on the comprehensiveness of the budget documents, their link to national accounting statistics and their transparency. The underlying reasoning is that delegation and contracts can only work effectively if the budget process reveals accurate information about the fiscal stance and intentions of the government.

Third, the values assigned to each individual item on the budget must be aggregated to a comprehensive index. This is a critical step, because it involves judgement about the substitutability and the interdependence of institutional elements. Adding up the numbers for amendment controls and similar numbers concerning, say, the voting procedure implicitly assumes that strengthening amendment controls can make good for a weaker control of the voting procedure.[11] Furthermore, multiplicative aggregation of the index emphasizes interdependence of institutional elements more than additive aggregation.

With these problems in mind, however, using indexes of centralization is still the best one can do in testing the basic hypothesis. In all studies reported below, a

11.Alesina et al (1996) and Strauch (1998) propose non-linear transformations of individual sub-indices to test for substitutability.

high value on the index signals a large degree of centralization. Thus, we expect a negative coefficient on this index in a regression using government deficits or debt on the left hand side.

The indices proposed in the literature are typically constructed for a time periods of a decade and remain constant in that period. This indicates that budget institutions are typically quite stable. An exception is the index constructed by Alesina et al for Latin America, who provide a time series reflecting several changes in Latin American budgeting institutions over the last two decades.

IV.2. International Evidence

Figure 2 presents the index of centralization constructed by von Hagen and Harden (1996) for 15 European Union countries together with the surplus ratios in terms of GDP of these countries in the 1980s and the 1990s. To emphasize the long-run effect of institutions this figure uses five-year averages of deficit and debt ratios. Clearly, countries ranking high on the index of centralization are countries with relatively low deficits and debts in the period under consideration. Figure 3 presents the index of centralization constructed by Stein et al. (1997) together with the primary surplus for 20 Latin American countries. Again, the correlation between surpluses and centralization of the budget process is visible. Figure 4, finally, shows the index of centralization constructed by Lao-Araya (1997) for 11 Asian countries together with their primary surplus ratios. The same correlation stands out.

This evidence can also be summarized in the simple regressions displayed in Table 3. In all three samples, the coefficient of the index of centralization is statistically strongly significant. This is clear evidence supporting our basic hypothesis.

Bivariate regressions are, of course, extremely limited in power. Table 4 reports the results of panel regressions for the European and Latin American countries. In each regression, a measure of the government deficit is employed, and the regression controls for economic factors such as economic growth, unemployment, and the interest rate together with a set of political variables. Two results are worth noting. First, the index of centralization is negative and statistically significant. This confirms the basic hypothesis. This says that countries with relatively more centralized budget processes are countries with relatively lower average deficits. Second, all other political control variables except the dummy indicating a change in the executive during the relevant year are non-significant in explaining government deficits. This confirms the empirical problems of the „raw politics“ approach.

Table 5 adds evidence from American state governments. While these are related through the same political, federal and monetary system, it is also possible to think of them as small open economies. The table shows that here, again, centralization has a significant positive impact on the budget surplus. Tommasi and Jones (forthcoming) show similar results for a sample of Argentine provinces. Again, centralization of the budget process is found to produce significantly lower deficits.

To summarize, the empirical evidence confirms the claim that institutional characteristics of the budget process affect aggregate fiscal discipline.

V. Institutional Choice in Democratic Settings

The empirical tests reported above confirm the importance of budgeting institutions for achieving aggregate fiscal discipline. They do not, however, distinguish between the contract and the delegation approach. We now ask what determines the choice between these two.

As indicated above, a critical difference between the delegation and the contract approach is that the former relies on hierarchical structures while the latter relies on an even distribution of authorities. In democratic governments, hierarchical structures typically prevail within political parties, while inter-party relations are more even. This suggests that the key to the institutional choice lies in the number of parties involved in the budget process.

V.1. Parliamentary Systems

In parliamentary systems, this means that the delegation is the proper approach for single-party, while contracts is the proper approach for multi-party coalition governments (Hallerberg and von Hagen, 1997). There are two reasons behind this conjecture.

First, members of the same political party are more likely to have similar political views regarding the basic spending priorities than members of different political parties. The spending minister in a one-party government can, therefore, be fairly sure that the finance minister holds more or less the same spending preferences as they do; their disagreements with the finance minister will be mainly a result of the CPR problem. In a coalition government, in contrast, cabinet members are likely to have different views regarding the distribution of government spending over the groups of recipients. Agreement on a budget, therefore, involves a compromise between the coalition partners regarding the distribution of funds for a given budget size.

For a coalition government, delegation then creates a new principal agent problem. A strong finance minister might abuse his powers and unduly promote the political interests of his own party in the setting of broad budgetary targets. The same principal agent problem does not arise in the contracts approach, since the contracts are negotiated by all cabinet members. Thus, governments formed by two or more parties are more likely to opt for the contracts approach.

Second, delegation and contracts rely on different enforcement mechanisms of the budget agreement. In one-party governments, the ultimate punishment for a spending minister reneging on the budget agreement is dismissal from office. Such punishment is heavy for the individual minister who overspends, but generally light for the government as a whole. It is based on the fact that prime ministers in one-party governments are typically the strongest members of their cabinets and have the power and authority to select and reshuffle their cabinet members. In coalition governments, however, a punishments cannot be directed easily to the defecting minister. The distribution of portfolios is, as far as the sitting prime minister is concerned, exogenously given by the coalition agreement. The prime minister cannot easily dismiss or otherwise discipline intransigent spending ministers from a different party, since that would be regarded as an intrusion into the internal party affairs of his coalition partners. The most important punishment mechanism here is the threat that the coalition breaks up if a spending minister reneges on the budget agreement. Thus, punishment leads to the death of the government rather than the dismissal of a single individual. The point is illustrated by the fact that fiscal targets are often part of the coalition agreement.

The credibility of the enforcement mechanism in coalition governments hinges on two important factors. First, it requires the existence of alternative coalition partners. If another partner exists with whom the aggrieved party can form a coalition, the threat to leave the coalition is clearly more credible than if no alternative coalition partner is available. The number of parties in parliament regarded to be potential candidates for a coalition is, therefore, one factor of the credibility of the enforcement. Second, the coalition may be broken up with the anticipation of new elections. The credibility of the enforcement then depends critically on the expected election outcomes.

Germany's budgetary difficulties in the 1990s illustrate the point. While the large coalition partner pushed for more spending and higher taxes, the smaller partner insisted on reducing taxes and cutting the welfare system. However, a coalition involving the smaller partner and one of the opposition parties was clearly ruled out by the latter, and polls indicated that the party might not be in parliament after elections. In this constellation, the larger partner got his way.

The different enforcement mechanisms also explain the different relations between the executive and the legislature in the second phase of the budget process. Single-party governments typically arise in two-party settings such as pre-1994 New Zealand or Britain, where each party is large and party discipline is low. While the ruling party enjoys a majority in parliament, the main concern of the legislative stage is to limit the scope of defections from the budget proposals by individual members of parliament who wish to divert government funds to their electoral districts. Multi-party coalitions, in contrast, typically arise in settings where parties are small, relatively homogeneous and party discipline is strong. In that situation, defections from the budget agreement are a weaker concern, but each party involved in the coalition will want to watch carefully that the executive sticks to the coalition agreement. The delegation approach, therefore, typically makes the executive a much stronger agenda setter in parliament than the contract approach, while the latter lends more monitoring powers to the legislature than the former.

Table 6 illustrates this point by showing that parliamentary committees in countries adhering to the contract approach are typically in a stronger position to collect information from the executive than committees in countries relying on the delegation approach.

Finally, the commitment to fiscal targets embedded in the contract approach is not credible for one-party governments. To see this, consider a single-party government with a weak prime and finance minister. Assume that this government settled on a set of fiscal targets at the outset of the budget process and that some spending ministers renege on the agreement during the implementation phase. In this case, the other cabinet members cannot credibly threaten the defector with a dissolution of the government, since they would punish themselves by calling for elections. Absent a credible threat, the entire cabinet would just walk away from the initial agreement.

To summarize, coalition government will typically choose a contract approach and single-party governments will typically choose delegation as an institutional mechanism to remedy the CPR problem of budgeting.

V.2. Electoral Institutions

Electoral institutions strongly influence the number of party players in government. One important factor is the number of parties that gain legislative seats; if there are few parties, there is a higher chance that one party can win an absolute majority, and an absolute majority is a virtual certainty in two-party systems. Several studies indicate that the number of parties in a given system is strongly and positively correlated with the number of representatives elected from each electoral district. This number is generally known as *district magnitude* (Duverger 1954; Taagepera and Shugart 1989, 1993). Electoral systems with low district magnitudes distribute seats less proportionately than those with large district magnitudes, and lower proportionality favors larger parties. In France, for example, the conservative parties won just 44% of the total votes cast in 1993 but over 80% of the National Assembly seats under the two-stage plurality system with a district magnitude of 1. This disproportionality can exist even in proportional representation states if the district magnitude is low--in Spain, for example, where the average district magnitude is just 6.7, the Socialist party was able to win 44% of the popular vote in the 1986 national elections but 52% of the seats in the Congress of Deputies.[12] At the other extreme, the Netherlands has only one electoral district composed of 150 seats for the entire country, and a party that wins less than one percent of the national vote can gain seats in parliament.[13]

Plurality systems, which elect only one representative per district, encourage two-party systems, and they are consequently most likely to have one-party majority governments. PR systems have more variation in their district magnitudes, though the magnitudes are always larger than those found in plurality systems. They tend to have a larger number of *effective parties* in parliament and are characterized by multi-party majority or either one-party or multi-party minority governments.[14] Empirical evidence has consistently supported this relationship, e.g. Lijphart (1984, 161).[15]

Table 7 compares the electoral systems of most OECD countries. A few points require clarification. First, PR systems do not translate the percentage of votes directly into the percentage of seats, and smaller parties often cannot gain entry into the legislature. We noted previously that district magnitude affects the number of political parties possible, and a logical comparison would be between this figure and the likelihood of one-party government. Yet such a comparison would be somewhat misleading--as the third column in Table 7 indicates, states sometimes have different district magnitudes at different levels of the allocation process. In addition, other factors that district magnitude does not measure, including legal

12. Thomas T. Mackie and Richard Rose (1991, 397, 399). The average district magnitude figures is reported in Lijphart (1994, 22).

13. Other factors which affect proportionality include legal barriers which require a party to gain a certain percentage of the national vote to win legislative seats, the method used to apportion seats, and whether or not a second allocation of seats is used to reduce disparities at the district level. A succinct summary is found in Gallagher, Laver, and Mair (1992, 153-159).

14. A reasonable measure for the number of parties considers the strength of parties as well as their absolute number. The measure that will be used here is for the effective number of parties in parliament and is taken from Mark Laakso and Rein Taagepera, as quoted in Lijphart (1884, 68). It is calculated as $N=1/S\ s_i^{\ 2}$, where N equals the effective number of parties and s_i equals the proportion of seats party i possess in the legislature.

15. Other empirical studies that confirm this link include Lijphart (1994) and Taagepera and Shugart (1989 and 1993).

thresholds (such as Germany's requirement that a party win either 5% of the nation-wide vote or three seats by plurality vote) and rules for the allocation of seats (use of the D'Hondt method for allocating seats) favor larger parties over smaller ones. Arend Lijphart solves our problem of how to aggregate these institutional effects with his translation of such factors into an *effective threshold*, which is the percentage of the national vote a party expects it must receive to gain any legislative seats.

Table 7 confirms the general link among electoral institutions, the number of parties, and the likelihood of a one-party majority government for the sample of OECD countries. The correlation between the effective threshold and the number of parties has the correct sign at -.59, and it jumps to -.69, if France is excluded from the sample. The most important figure is the correlation which links the occurrence of one-party majority governments with higher effective thresholds, and the correlation of .69 indicates that this relationship is relatively strong. Since states which have low district magnitudes also have higher effective thresholds, this result indicates that plurality elections or PR systems with low district magnitudes are likely to have one-party majority governments. In contrast, PR systems with high district magnitudes usually have either multi-party majority governments or minority governments.

Data from Latin America and the Caribbean reinforce this conclusion. Stein et al (1997), in their examination of 26 countries from the two regions, report that the correlation coefficient between the district magnitude in the lower legislative house and effective number of legislative parties is .58, while the coefficient between the number of parties and the percentage of seats the sitting government possesses is even higher at .79.

Coming back to the institutional choice for centralizing the budget process, the correlation between electoral institutions and the number of parties in governments the suggests, that countries with PR systems should be more likely to adopt a contract approach, while countries with a plurality system should opt for the delegation approach, if they adopt centralizing institutions at all. Table 8 considers the institutional design of budget processes in the European Union to test that hypothesis. It shows that the choice of centralizing approach can indeed be predicted with a high degree of certainty on the basis of the electoral system, hence the composition of government.

V.3. Presidential Systems

Presidential systems of government are different from parliamentary systems in that the president is the leader of the executive and is directly elected. The president, therefore, does not rely directly on the legislature for his position. Voters can, and often do, support a president from one party while denying his party a majority in the legislature. In the United States, for example, a president has faced an opposition-controlled House or Senate 19 of the past 25 years. In Latin American and Caribbean countries during the period 1990-95, half of the twenty countries with presidential systems had presidents facing opposition-controlled lower houses (Stein et al, 1997). Coordination of budgetary decisions between the executive and parliament becomes obviously more difficult, when the president and the majority in parliament come from two different parties. In fact ... show that in the years from 1868 to 19.. federal government deficits in the US were significantly lower in times when the president faces a majority in congress from his own party. In countries with presidential systems that elect their legislatures with proportional representation, it is likely that the number will be greater than two.

The role of the executive in the budget process is not much different in presidential systems. Since the president typically appoints the members of his administration - with confirmation by the legislature where applicable - the structure of the administration lends itself more to a delegation approach than to a contract approach to centralizing the budget process. The relationship between the president and the legislature, however, is often more difficult, since the two are conceived to be more equal political institutions than in parliamentary forms of governments. Where presidential forms of government are combined with plurality electoral systems, the president will face typically just two parties in the legislature, hence only one opposing party, although party discipline in his own party may be low. Where presidential systems are combined with PR electoral systems, the president may even be from a minority party in the legislature, and be in a relatively weak position.

Centralization in presidential systems then must emphasize two institutional dimensions. One is the internal organization of the legislature. Here, centralization can be achieved by creating a strong leadership in parliament, through an elevated position of the speaker and through a hierarchical committee structure.

The other dimension regards the relation between the executive and the legislature. The more the constitution puts the two institutions on an equal footing, the more budget agreements between the two must rely on the contract approach. Inman (1993) emphasizes the importance of the president's command over sufficient resources to build congressional coalitions and veto power to discipline the legislature.

V.4. Balanced Budget Laws

Constitutional constraints on budgetary aggregates - usually the deficit - are often considered as a device to improve fiscal discipline. In the US, a constitutional requirement for a balanced federal budget was discussed in the mid-1990s. In Europe, the debate over fiscal discipline in the European Monetary Union has so far paid more attention to the numerical constraints of the Maastricht Treaty and the Stability and Growth Pact than to institutional reform, although the Maastricht Treaty calls for institutional reform of the national budget processes and although the successful cases of the Maastricht process have strongly relied on procedural reforms. Constitutional constraints are also often found as a mechanism to limit the borrowing of subnational governments (von Hagen and Eichengreen, 1996; Stein et al, 1997). Legal, numerical constraints may seem more attractive as institutional devices to contain deficits, since they are more visible and more easily understood than procedural reform. The recent move to such constraints in most Canadian provinces suggests that numerical constraints play a large role when the impetus for fiscal consolidation comes directly from disgruntled taxpayers who wish to impose greater constraints on the spending profligacy of their elected representatives (Millar, 1997)16. Several Canadian provinces have adopted laws providing for significant

16. The new Canadian Laws are often part of a legislation calling for „taxpayer protection". See Millar (1997).

salary cuts imposed on members of the executive when the borrowing constraints are violated.

It is interesting, therefore, to see how successful such constraints in achieving the desired goal. Here, it is particularly useful to consider the experience of American state governments, since almost all state governments in the US have some constraints on either the size of the deficits or the size of public debt they can issue. These constraints come in varying degrees of strictness, however, ranging from constraining only the governor's budget proposal to be balanced to an outright ban on revenue out-turns falling short of expenditures. ACIR (1987) and Strauch (1998) provide overviews and a characterizations of these constraints.

Table 9 reports a panel regression of the deficit ratios of American state governments on a set of control variable and an index characterizing the strictness of the numerical constraint. This regression indicates that numerical constraints are effective to limit the deficit. However, when the same regression is performed for the primary deficit and includes the institutional index, there is no significant effect of numerical constraints. Eichengreen (1990) shows that the stringency of numerical constraints has a significant and negative effect on a state's debt ratio. However, Eichengreen considers only the level of *full faith and credit* debt, i.e., debt that is fully and explicitly guaranteed by the state government. von Hagen (1991) broadens the perspective including other debt, too, such as debt issued by public authorities. He finds that the stringency of numerical constraints has no effect on the total debt. The two results are, of course, easy to reconcile: They suggest that states subject to stringent numerical deficit constraints tend to substitute debt instruments not covered by the legal rule (resulting from off-budget activities) for *full faith and credit debt*. Kiewiet and Szakalay (1996) find a similar effect by showing that states with more restrictive borrowing constraints imposed on the state government tend to have larger debts incurred by municipal governments.

von Hagen and Eichengreen (1996) show in a cross-country comparison that countries where subnational governments are subject to stringent statutory borrowing constraints tend to have higher debt ratios of their central governments. This indicates a second substitution effect: Where subnational governments are not allowed to borrow in their own authority, they tend to pressure the central government to borrow on their behalf.

The important lesson to learn from this is that numerical constraints induce substitution effects that work against the intended effect on aggregate fiscal discipline. As institutional mechanisms to strengthen aggregate fiscal discipline, the difference between such constraints and the centralization of the budget process is that balanced budget laws rely on fixed rules, while centralization relies on strategic design of the budget process. Centralization has the advantage that it gives authority to people who are able to monitor the behavior of others, and can therefore react to attempts to circumvade the rules constraining their behavior.

V.5. Trade-offs in the Design of Budgeting Institutions

Apart from its constitutional function, government budgeting serves a number of other purposes. Budgets serve as forecasts of the government's financial activities during a year, budgetary policy is used to counteract movements in the business cycle, and budgetary policies must be flexible enough to cope with unexpected changes in the economic environment. This raises the possibility that budget processes that serve the constitutional function well might be less appropriate for other purposes.

Regarding the forecasting function of the budget, von Hagen and Harden (1994) perform the following, simple exercise. They evaluate the precision of budget forecasts of 12 European Union governments in the 1980s and correlate their performance with the quality of their budget processes. The result is that countries ranking high on their institutional index tend to have higher quality budget forecasts in the sense that the forecasts are less biased and have smaller standard errors. This is consistent with the view, mentioned above, that the information quality of the budget process is an input into the institutional index.

Lao-Araya (1997) claims that there is a trade-off between transparency, or information quality, and centralization of the budget process. It is easy to see that this claim is unwarranted. First, Lao-Arayo, like Alesina et al equates centralization with hierarchies, which, as shown above, is not generally correct both in theory and practice. Where centralization is based on contracts, transparency is a necessary condition, since contracts need transparency to be understood and executed. Second, even where centralization is based on delegation, transparency will ultimately strengthen the position of the finance minister, since his task to contain the spending bias resulting from the CPR problem is easier to fulfil, if all other participants in the budget process can verify that they are not being treated unfairly.

However, a strong finance minister might have an incentive to obscure budgetary developments in order to hide his own actions. This is most likely to occur if the finance minister wishes to abuse his elevated position to enforce his own preferred allocation of public funds against the opposition of his fellow cabinet members. This could happen, for example, if the finance minister of a coalition government is vested with strong agenda setting powers, and the coalition members have very different views on their preferred allocation of funds. Yet, in light of our earlier arguments, the problem in such a scenario is that the wrong approach to centralization was chosen, not that centralization contradicts transparency.

Finally, finance ministers that, on the basis of the political constitution have a weak position only in their cabinets or relative to the legislature may try to strengthen their position by monopolizing and manipulating information about fiscal data. Specifically, they may try to hide revenues and bias revenue forecasts downwards to keep spending demands low. But while such behavior may mitigate the CPR problem to some extent, it is clear that this is not an appropriate solution to the common pool problem of budgeting. Delegation or contracts, combined with transparency are clearly preferable.

The second trade-off suggested by Lao-Arayo is one between transparency and flexibility. According to this view, hiding budgetary information gives the executive more discretion to react to unforeseen events; and decentralization reserves authority for those departments hit by such events. But this view is unwarranted, since it does not consider the full effects of hidden information and decentralization on the executive's ability to agree on a reaction to unforeseen events. Generally, collective agreements are much faster to obtain in settings where information is shared and there are clear leadership structures (e.g. Velasco, forthcoming).

Flexibility in the implementation of the budget to react to unforeseen events is, of course, desirable. Such flexibility can be achieved in a number of ways without working against centralization. The Swedish government recently adopted a budget law that allows spending departments to charge expenditures against future budgets or transfer unused appropriations to the next year. Both transfers are possible, however, only for a limited number of years. Since the charges and transfers must be budgeted in the following year, the provision combines flexibility with transparency and gives both the legislature and the finance minister the ability to control the flow of expenditures.

An alternative way to create flexibility is the creation of a *rainy day fund*, i.e., an unspecified appropriation that can be used for emergencies. An example is the *(Contingency) Reserve* included annually in the UK budget (von Hagen and Harden, 1994). The purpose of the *Reserve*, which amounts to 2 - 4 percent of the budget total, is to deal with unanticipated expenditures without overrunning the aggregate targets imposed on the spending departments. According to a rule introduced in 1976, a refusal by the finance minister to charge an expenditure against the *Reserve* could only be overruled by the entire cabinet; an allocation made from the *Reserve* does not increase a spending department's baseline allocatin for the subsequent budget planning processes. Again, the critical point is to budget the fund annually and to submit spending out of this fund to the same rules of expenditure management as ordinary spending.

The ability of budgetary policies to counteract cyclical fluctations is an important concern. To see whether delegation and contracts tend to reduce a government's capacity to react appropriately, we consider a variation of the previous regression for European governments. Here, the dummy variable „delegation" is one for countries adhering to a delegation approach and zero elsewhere, the "contracts" dummy is defined accordingly. Furthermore, we multiply these dummies with an interactive dummy variable which is one in years of recession (negative real growth) and zero elsewhere. Table 10 shows the results. The negative coefficient on the interactive terms indicate that governments using either one of these approaches react more strongly to cyclical downturns than governments with fragmented budget processes. Only for the delegation approach, however, this is statistically significant. A likely explanation is that finance ministers are able to react more quickly to economic downturns than the spending ministers of the cabinet. Thus, the results lend no support to the claim that sound fiscal institutions would make a country less able to use fiscal policy for macro-economic stabilization.

One important event during a fiscal year is a change in the players that negotiate the budget through elections or a break-up of the ruling coalition. Political-economy literature has often linked elections with government-inspired changes to the macro-economy for short-term electoral gain at the expense of longer-term economic growth (Nordhaus 1975; MacRae 1977).[17] Furthermore, a spending minister expecting to be replaced soon in the government may not fear the punishment that either a finance minister (under delegation) or other coalition partners (under contracts) would levy on him for defecting from the budget agreement. The expectation here is that deficits would increase both in election years and in years where there were changes in the coalition.

To examine these arguments, Table 11 presents regression results that include both a variable for the year of an election and an interaction term for elections with the two budgetary approaches. The data indicate that contracts restrain the political business cycle while delegation does not. This makes intuitive sense--under fiscal contracts the players do not want to let their coalition partners gain an edge over them so they do not allow any slippage at all, while in a one party government a finance minister may allow some deterioration in the budget if he thinks it affects the very survival of the government.

VI. Outside Enforcement of Budget Agreements

Interpreting government budgeting as a CPR problem implies that the key to

17. The hope is that higher spending before an election will attract additional voters to the ruling government. The evidence for such "political business cycles has been decidedly mixed. Even in the landmark article that began the debate, Nordhaus 1975 found evidence for such cycles in just four of nine cases he examined (see also Alesina 1989; Davidson, Fratianni, and von Hagen 1992; Alesina, Cohen, and Roubini 1993; Clark and Reichert (Forthcoming) find some evidence in states with dependent central banks.

achieving aggregate fiscal discipline is to broker a budget agreement that is efficient for all decision makers involved together, but that is vulnerable to defections from each one of them. Effective enforcement of the budget agreement is, therefore, a necessary condition for aggregate fiscal discipline. Delegation and contracts are both centralizing institutions that rely on enforcement mechanisms within the government itself; the penalties a strong finance minister can impose on defecting spending ministers under the delegation approach, and the threat of breaking up the coalition under the contract approach. An alternative is to consider enforcement mechanisms brought from the outside.

One such approach follows the logic of independent central banks in appointing an independent agency, the *National Debt Board*. This was first proposed in the European context by von Hagen and Harden (1994), and for Latin American countries by Eichengreen, Hausmann, and von Hagen (1996). The Board's mandate is to assure the stability of the country's public finances. It's main task is to pronounce annually the maximum increase in public debt that the government is allowed to incur during that year. The Board consists of individuals independent from the government and is accountable in its task to the parliament. Parliament can dissolve the Board if it feels that the Board is not executing its functions properly, however, in doing so, it cannot overrule the Board's current pronouncement of a maximum debt increase. Importantly, the Board would be vested with the authority to impose across-the-board spending cuts and cash limits if the government overruns its limit. See table 12 for further institutional details.

The Board would be preferable to a balanced budget rule, as it can take into account the current state of the economy and other factors that might affect the desirable stance of fiscal policy. Note that the Board's task is not to pronounce how large the deficit *will* be every year, instead, it only imposes an upper limit on the government's choice of a deficit. Note also that the Board has no mandate to determine the allocation of public spending and taxes, although it will have an incentive to justify its pronouncements with a detailed view of the government's fiscal policy.

The main task of the National Debt Board is to enforce an upper limit of the growth of public debt. In doing so, it is likely that the existence of the Board would encourage the government to spell out its fiscal intentions. In this sense, the Board would promote a contract on a budget program between itself, the executive, and the legislature.

One country that recently adopted an institution like a the National Debt Board proposed by von Hagen and Harden is Belgium. To help strengthen aggregate fiscal discipline after the country was re-organized as a federal state in the late 1980s, Belgium created the Fiscal Council, composed of independent advisors and representatives of the regions, the communities, and the national government.

Another avenue for external enforcement of budget agreements is to rely on international financial organizations. Specifically, IMF assistance programs regularly come with fiscal conditionalities that impose constraints on the recipient country's fiscal policy for some time. The purpose of these conditionalities is to help stabilize the country's economy and its public finances. IMF conditionality can be regarded as a contract between the recipient government and the IMF on a set of broad fiscal targets. The IMF's enforcement power is derived from the threat that the financial assistance will not be disbursed if the targets are violated.

But the IMF approach has, at least, two severe limitations. First, assistance programs are agreements between the IMF and the executive, and the legislature may not feel bound by this agreement. There is, therefore, little hope that the outside enforcement would work in political settings where the executive has weak control only over the legislature. This indicates that outside enforcement based on IMF programs may work in countries where the executive strongly controls the legislature, but that it will be less effective in countries where this is not the case.

Second, IMF assistance programs come in times of crisis, i.e., when public finances are already in disarray. In more normal times, the IMF has little scope for enforcing fiscal programs, since it has no penalties to impose. Finally, IMF conditionalities pay no attention to allocative processes. Responding to the need to cut spending rapidly, governments of poor countries often implement these conditionalities by cutting welfare programs for the poorest parts of the population, future-oriented spending programs such as education. As a result, IMF conditionalities become equated with poor allocative results, which makes the concept of external enforcement of budget agreements unpopular in normal times.

The preparation of European Monetary Union has furnished another example of enforcing budget agreements through an international organization. Aspirant countries for the monetary union in fact signed a contract committing them to a set of broad fiscal targets over a period of six years. These countries had to submit *Convergence Reports* explaining the government's strategy to meet these targets. The European Commission, after reviewing these reports and the relevant data issued judgements of the countries' fiscal stance, which became the basis for the European Council's assessment whether or not a country had an *excessive deficit*. Here, the external enforcement power was permanent (six years) and carried a bigger penalty (exclusion from the monetary union).

The success of the Maastricht program, however, has been limited. A number of the smaller countries, Portugal and Ireland in particular, used the *convergence process* for a successful reduction of their deficits and debts. Yet, when the Maastricht process started in 1992, the average debt ratio of the European Union states was 60 percent, today it is over 75 percent. A closer look reveals that this increase was driven entirely by the fiscal developments in Germany, France, Spain, Italy, and the UK, which did not commit itself to the process. It is probably no coincidence that the other four countries are the largest countries among the 11 candidates for EMU. In large countries such as Germany and France, the role of external political constraints such as admonitions brought by the European Commission is simply too weak to coerce internal politics. This suggests that the effectiveness of outside actors in enforcing budget agreements depends critically on the importance of international organizations in domestic politics, which is plausibly a function of the size of the country.

VII. Institutional Reform

We have argued that lacking fiscal discipline can largely be explained by institutional deficiencies of the budget process that allow the common pool resource problem of public budgeting to become rampant. Both theory and evidence from a considerable variety of countries support that argument. Can conclude from this that institutional reform is an effective way to combat lacking fiscal discipline?

Our basic claim has been that institutions frame the decisions made within them. This contention rests on the proposition that the same individuals facing a decision problem make different decisions in different institutional environments, implying that institutions effectively constrain idividual choices. The obvious objection is, why do these individuals not rid themselves of the institutions and change the rules if they feel constraint by the current ones? After all, institutions are man-made and subject to change. Without a satisfactory answer to this question, the power of institutions and the promises of institutional reform must remain in doubt.

Such an answer has three points. First, the individuals involved in the budget process do not alsways have the authority themselves to change the rules. The relevant institutions may be cast in constitutional law or historical traditions that are hard to modify. Second, the claim that institutions impose constraints on individual decisions does not imply that these individuals will want to change the institutions. They will only want to do that, if they can be reasonably sure that they can reach more desirable outcomes in the modified environment. Since complex political and economic decisions made in groups of people are prone to instability and irrationality, an environment with less rules is often much less desirable than an environment with rules even if their constraints are being felt. Third, institutional rules in the budget context serve to coordinate individual choices. Specifically, they give individual participants assurance that excessive budget demands by other participants will not be successful, and thus make it easier for the former to agree to demand less himself. Again, the implication is that abolishing institutional constraints is not necessarily desirable.

Nevertheless, one should not overinterpret the results as saying that a mere change in the law is an effective means to reduce deficits. Precisely because changing institutions takes some extraordinary effort, policy makers are unlikely to do that unless they are aware of an acute fiscal problem. But if that is the case, how can we prove that the institutional change contributed to the fiscal correction, if the latter was what policy makers wanted anyway?

A first point is that institutional changes are very visible to the public and the markets and, therefore provide an important signalling function. Governments showing the resolve for a more disciplined fiscal policy by reforming pertinent institutions will find it easier to convince the public and financial markets of their good intentions. To the extent that this reduces opposition against fiscal cutbacks, the consolidation is made easier.

A second point is that the awareness of a fiscal problem may not be permanent. As other problems arise and the deficit returns to normal levels, the attention to the deficit is reduced and the tendency for overspending and excessive deficits rises again. At that point, centralization of the budget process can be an important mechanism to preserve the collective memory of the previous crisis.

References

Advisory Council for Interstate Relations (ACIR) (1987), „The Effect of Constitutional Restraints on Government Spending“. *Significant Features of Fiscal Federalism* Washington DC

Alesina, Alberto, and Ricardo Hausman, Rudolf Hommes, and Ernesto Stein. 1995. "Budget Institutions and Fiscal Performance in Latin America." Manuscript.

Alesina, Alberto, and Roberto Perotti. 1995. “Fiscal Expansions and Adjustments in OECD Countries.” *Economic Policy*: 207-248.

Alesina, Alberto, Gerald D. Cohen and Nouriel Roubini. 1993. “Electoral Business Cycles in Industrial Democracies.” *European Journal of Political Economy*. 9:1-23.

Alesina, Alberto. 1989. “Politics and Business Cycles in Industrial Democracies.” *Economic Policy.* 8: 55-87.

Barro, Robert F (1979), „On the Determination of Public Debt.“ *Journal of Political Economy* 87, 940-71

Buchanan, James M. and Gordon Tullock (1962), *The Calculus of Consent* . Ann Arbor: University of Michigan Press

Clark, William Roberts, and Usha Nair Reichert. Forthcoming. “International and Domestic Constraints on Political Business Cycles in OECD Economies.” *International Organization*.

Cox, Gary W., and Mathew D. McCubbins. 1993. *Legislative Leviathan*. Berkeley and Los Angeles: University of California Press.

Crain, Mark, and James C. Miller (1990), „Budget Process and Spending Growth.“ *William and Mary Law Review* 31, 1021-46

Davidson L S, Michele Fratianni, and Jürgen von Hagen. 1992. “Testing The Satisficing Version Of The Political Business-Cycle 1905-1984.” *Public Choice*. 73:21-35

De Haan, Jakob, and Jan-Egbert Sturm. 1994. “Political and Institutional Determinants of Fiscal Policy in the European Community” *Public Choice*. 80: 157-172.

Duverger, Maurice. 1954. *Political Parties. Their Organization and Activity in the Modern State*. New York: Wiley.

Edin, Per-Anders, and Henry Ohlsson. 1991. "Political Determinants of Budget Deficits: Coalition Effects Versus Minority Effects." *European Economic Review* 35: 1597-1603.

Eichengreen, Barry (1990), „One Money for Europe?“ *Economic Policy*

Eichengreen, Barry, Ricardo Hausmann, and Jürgen von Hagen (1996), „Reforming Budgetary Institutions in Latin America: The Case for a National Fiscal Council“. Working paper, Interamerican Development Bank, Washington DC

Ferejohn, John, and Keith Krehbiel (1987), „The Budget Process and the Size of the Budget.“ *American Journal of Political Science* 31, 296-320

Frohlich, Norman, and Joe A. Oppenheimer. 1978. *Modern Political Economy*. Eaglewood Cliffs, New Jersey: Prentice-Hall.

Gallagher, Michael, Michael Laver, and Peter Mair. 1992. *Representative Government in Western Europe*. New York: McGraw Hill.

Gardner, Roy, and Jürgen von Hagen (1996), „Sequencing and the Size of the Budget“. In: Werner Güth, Wulf Albers, Benny Moldovanu and Eric van

Damme (eds.), *Understanding Strategic Interaction: Essays in Honor of Reinhard Selten*. Heidelberg: Springer

Grilli, Vittorio, Donato Masciandaro, and Guido Tabellini. 1991. "Institutions and Policies." *Economic Policy*. 6 : 341-391.

Hahm, Sung Deuk, Mark S. Kamlet, and David C. Mowery. 1996. The Political Economy of Deficit Spending in Nine Industrialized Parliamentary Democracies. The Role of Fiscal Institutions. *Comparative Political Studies* 29, 1: 52-77.

Hahm, Sung Deuk. 1994. "The Political Economy of Deficit Spending: A Cross Comparison of Industrialized Democracies, 1955-1990." Manuscript.

Hallerberg, Mark. 1997. “A Theory for the Distribution of Committee Power in Parliamentary Systems.” In Lawrence D. Longley and Attila Agh, Eds. *Working Papers of Comparative Legislative Studies II: The Changing Roles of Parliamentary Committees*. Appleton, Wisconsin: Research Committee of Legislative Specialists.

Hallerberg, Mark, and Jürgen von Hagen (1997), „Electoral Institutions and the Budget Process“. OECD-IADB Conference paper, Paris

Inman, Robert (1993), „Presidential Leadership and the Reform of Fiscal Policy: Learning from Reagan’s Role in TRA 86.“ NBER Working paper 4395, Cambridge

Inman, Robert, and Michael A. Fitts (1990), „Political Institutions and Fiscal Policy: Evidence from the U.S. Historical Record.“ *Journal of Law, Economics, and Organization* 6, 79 - 131

Inter-American Development Bank. 1997. *Latin America After a Decade of Reforms*. Washington, D.C.: Johns Hopkins University Press.

Katz, Richard. 1980. *A Theory of Parties and Electoral Systems*. Baltimore and London: The Johns Hopkins University Press.

Kiewiet, D. Roderick, and Kristin Szakaly (1996), “Constitutional Limits on Borrowing: An Analysis of State Bonded Indebtedness.” *Journal of Law, Economics and Organization* 12, 62-97

Lambertini, Luisa (1997), “Are Budget Deficits Used Strategically?” Working paper, UCLA

Lao-Araya, Kanokpan (1997), „The Effect of Budget Structure on Fiscal Performance: A Study of Selected Asian Countries“. IMF Working Paper, Washington DC

Laver, Michael, and Kenneth A. Shepsle. 1996. *Making and Breaking Governments*. Cambridge: Cambridge University Press.

Laver, Michael, and Kenneth A. Shepsle. 1994. "Cabinet Ministers and Government Formation in Parliamentary Democracies," in Michael Laver and Kenneth A. Shepsle, eds. *Cabinet Ministers and Parliamentary Government*. Cambridge: Cambridge University Press: 3-14.

Laver, Michael, and Norman Schofield. 1990. *Multiparty Government*. Comparative European Politics. Oxford: Oxford University Press.

Lijphart, Arend. 1994. *Electoral Systems and Party Systems: A Study of Twenty-Seven Democracies 1945-1990.* Oxford: Oxford University Press.

Lijphart, Arend. 1984. *Democracies: Patterns of Majoritarian and Consensus Government in Twenty-one Countries*, New Haven: Yale University Press.

Lupia, Arthur, and Mathew D. McCubbins. 1994. "Who Controls? Information and the Structure of Legislative Decision Making." *Legislative Studies Quarterly* 19, 3: 361-384.

Mackie, Thomas T., and Richard Rose. 1991. *The International Almanac of Electoral History*. Third Edition. London: MacMillan.

MacRae, Duncan. 1977. "A Political Model of the Business Cycle" *Journal of Political Economy*. 95: 239-263.

McCubbins, Mathew D. 1991. "Party Governance and U.S. Budget Deficits: Divided Government and Fiscal Stalemate." in Alberto Alesina and Geoffrey Carliner, eds. *Politics and Economics in the Eighties*. Chicago: The University of Chicago Press: 83-122.

Millar, Jonathan (1997), „The Effect of Budget Rules on Fiscal Performance and Macroeconomic Stabilization" Bank of Canada Working Paper 97-15

Nordhaus, William D. 1975. The Political Business Cycle. *Review of Economic Studies*. 42: 169-190.

Persson, Torsten, and Lars Svennson. 1989. "Why a Stubborn Conservative Would Run a Deficit: Policy with Time Inconsistent Preferences." *Quarterly Journal of Economics*: 325-346.

Rogoff, Kenneth. 1990. "Equilibrium Political Budget Cycles," *The American Economic Review* (March): 21-36.

Roubini, Nouriel, and Jeffrey D. Sachs. 1989. "Political and Economic Determinants of Budget Deficits in the Industrial Democracies." *European Economic Review*. 33: 903-938.

Schick, Allen. 1993. Government versus Budget Deficits. In Rockman, R. Kent, and Bert A. Weaver, *Do Institutions Matter?* Washington, D.C.: The Brookings Institution, 187-236.

Stein, Ernesto, Ernesto Talvi, and Alejandro Grisanti. 1997. Institutional Arrangements and Fiscal Performance: The Latin American Experience. Paper Presented at the Conference on Budgeting Institutions and Fiscal Performance: Perspectives for EMU, Bonn, Germany, June 27-29, 1997.

Strauch, Rolf R. (1998), „Budget Processes and Fiscal Discipline: Evidence from the US States". Working paper, Zentrum für Europäische Integrationsforschung Bonn

Strm, Kaare. 1990. *Minority Governments and Majority Rule*. Cambridge: Cambridge University Press.

Sturm, Roland (1997), „Recent Problems of Budgetary Policymaking in Germany". University of Birmingham Institute for German Studies, Working Paper IGS97/12

Taagepera, Rein, and Matthew Soberg Shugart. 1993. "Predicting the Number of Parties: A Quantitative Model of Duverger's Mechanical Effect." *American Political Science Review*. 87, 2: 455-464.

Taagepera, Rein, and Matthew Soberg Shugart. 1989*. Seats and Votes: The Effects and Determinants of Electoral Systems*. New Haven: Yale University Press.

Tabellini, Guido, and Alberto Alesina. 1990. "Voting on the Budget Deficit." *The American Economic Review*. 80, 1: 37-49.

Tommasi, Mariano, Mark P. Jones and Pablo Sanguinetti (forthcoming), „Politics, Institutions and Public Sector Spending in the Argentine Provinces". In: James Poterba and Jürgen von Hagen (eds.), *Fiscal Institutions and Fiscal Performance*. forthcoming

Tsebelis, George. 1995. "Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism and Multipartyism." *British Journal of Political Science* 25 : 289-325.

Velasco, Andres (forthcoming), „Debts and Deficits with Fragmented Fiscal Policymaking“. In: James Poterba and Jürgen von Hagen (eds.), *Fiscal Institutions and Fiscal Performance*. forthcoming

Von Hagen, Jürgen (1991), „A Note on the Empirical Effectiveness of Formal Fiscal Restraints“, *Journal of Public Economics* 44, 199-210

Von Hagen, J□rgen. (1992) "Budgeting Procedures and Fiscal Performance in the European Communities. *Economic Papers* 96.

Von Hagen, Jürgen (1997), „The Economics of Kinship.“ in: Padma Desai (ed.),

Von Hagen, Jürgen, and Barry Eichengreen (1996), „Federalism, Fiscal Restraints, and European Monetary Union.“ *American Economic Review* 86, May, 134-38

Von Hagen, J□rgen, and Ian Harden. 1994a. □Budget Processes and Commitment to Fiscal Discipline.□ *European Economic Review*. 39: 771-779.

Von Hagen, J□rgen, and Ian Harden. 1994b. "National Budget Processes and Fiscal Performance." In *European Economy. Reports and Studies* 3: 315-418.

Von Hagen, J□rgen, and Ian Harden. 1996. "Budget Processes and Commitment to Fiscal Discipline." *IMF Working Paper*.

Weaver, R. Kent (1986), „The Politics of Blame Avoidance“ . *Journal of Public Policy* 6, 371-98

Wildavsky, Aaron (1975), *Budgeting,* Oxford: Transaction Publishers.

Woldendorp, Keman, and Ian Budge. 1993. □Political Data 1945-1990.□ *European Journal of Political Research*. 24: 1-120.

Weingast, Barry R., Kenneth A. Shepsle, and Christopher Johnsen. "The Political Economy of Benefits and Costs: A Neoclassical Approach to Distributive Politics." *Journal of Political Economy* 89, no. 41 (1981): 642-664.

Appendix

Firgure 1: Debt Trends

Figure 1a

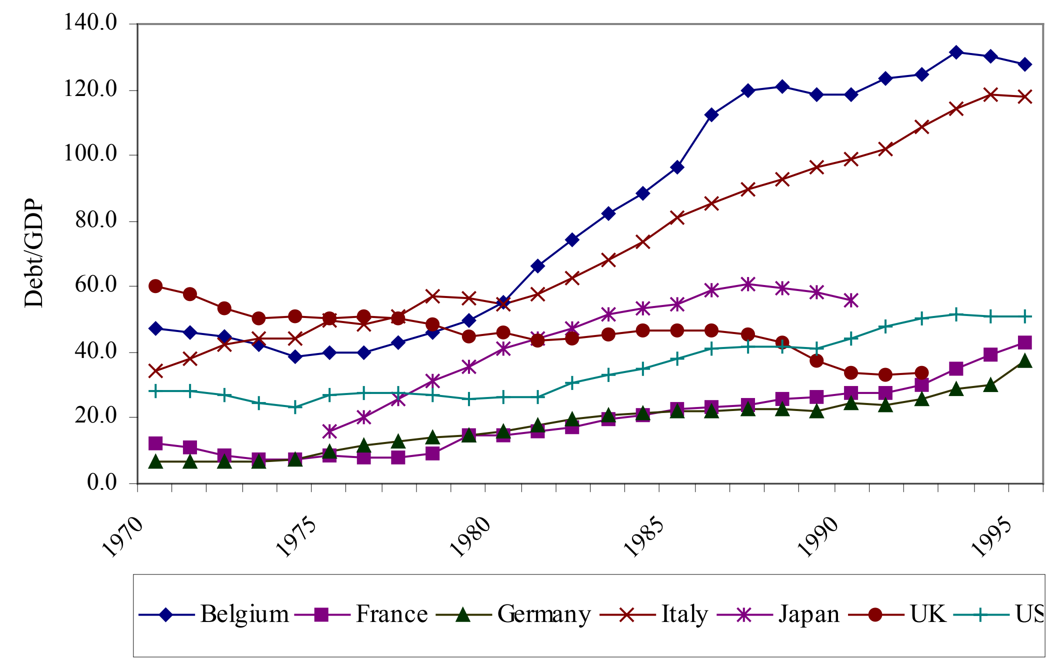


Figure 1b

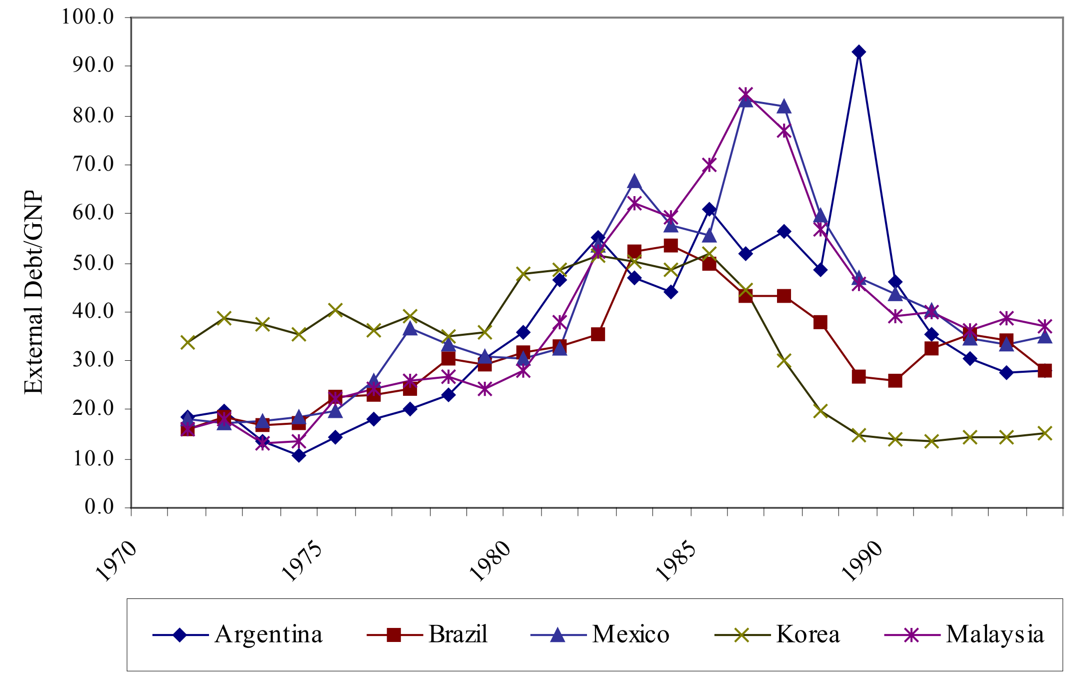


Table 1: Steps in the Budget Process

	Action
Executive Planning Stage	
G1	Formulation of budget targets and guidelines
G2	Preparation of budget bids
G3	Compilation of budget draft
G4	Reconciliation
G5	Finalization of budget proposal
Legislative Approval Stage	
P1	Debate, amendment of, and vote on budget proposal
P2	Reconciliation between upper and lower houses
P3	Approval by government
Implementation Stage	
I1	Execution of the budget act
I2	In-year changes of the budget
Ex-post Control and Accountability	

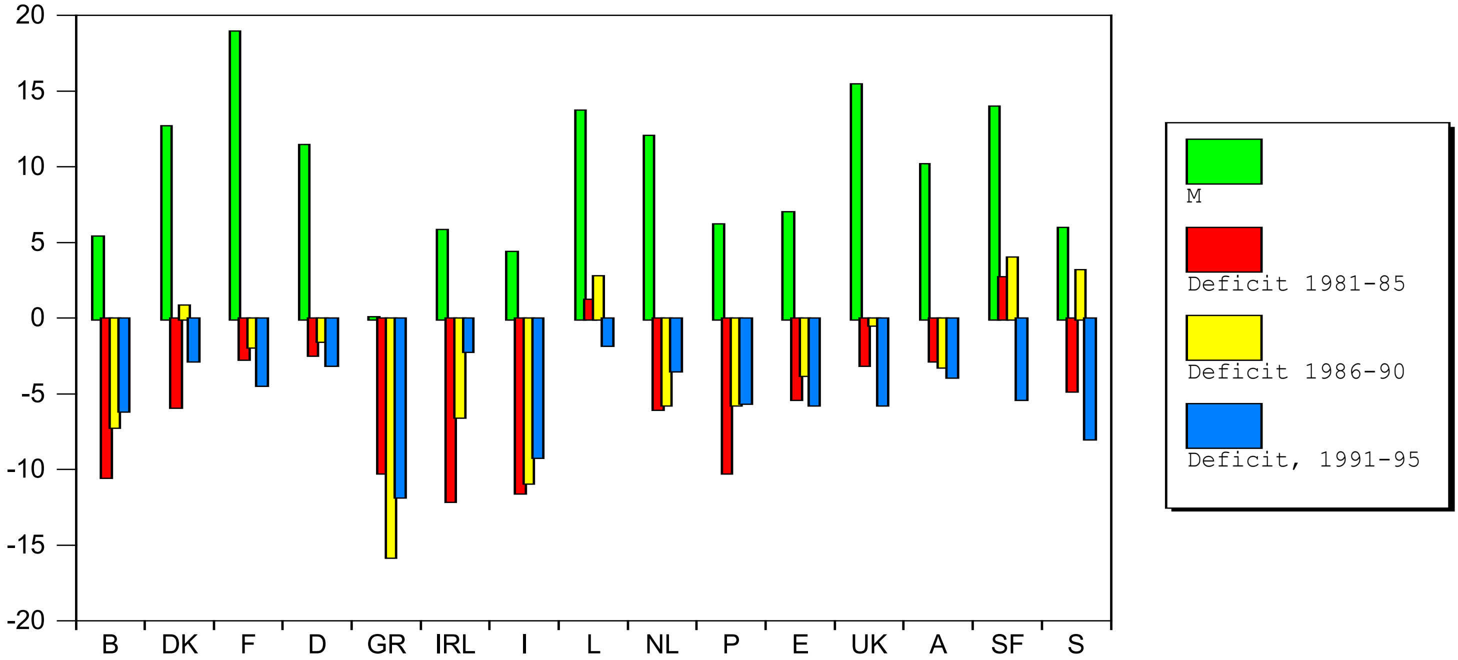
Source: von Hagen and Harden, 1994

Table 2: Budget Processes: Three Prototypes

Executive Planning Stage			
	Fragmented	Delegation	Contracts
Targets on broad aggregates	none, or with no political force, only overall targets	binding, set by prime minister or finance minister, targets for aggregates and components	binding, negotiated by members of executive , derived from fiscal program in the coalition contract, aggregates and components
Drafting process	finance minister only collects bids	detailed bids coordinated and approved by finance minister	detailed bids monitored by finance minister for consistency with fiscal program
Final conflict resolution between ministers	in entire cabinet	by prime minister	by senior cabinet committee and party leaders
Legislative Approval Stage			
Scope of amendments	none	strongly restricted	moderately restricted
voting procedure	unrestricted	determined by executive	unrestricted
committee structure and monitoring capacity	balkanized committees weak role of financial committee, weak monitoring powers	weak monitoring powers	strong role of financial committee, strong monitoring powers of committees over executive
budget authority of upper chamber	full	none	none
Implementation Stage			
Control function of MF	weak	strong	strong
Transfers of appropriations	unrestricted	under control of MF	restricted
Supplementary budgets	frequent	rare	Rare

Figure 2

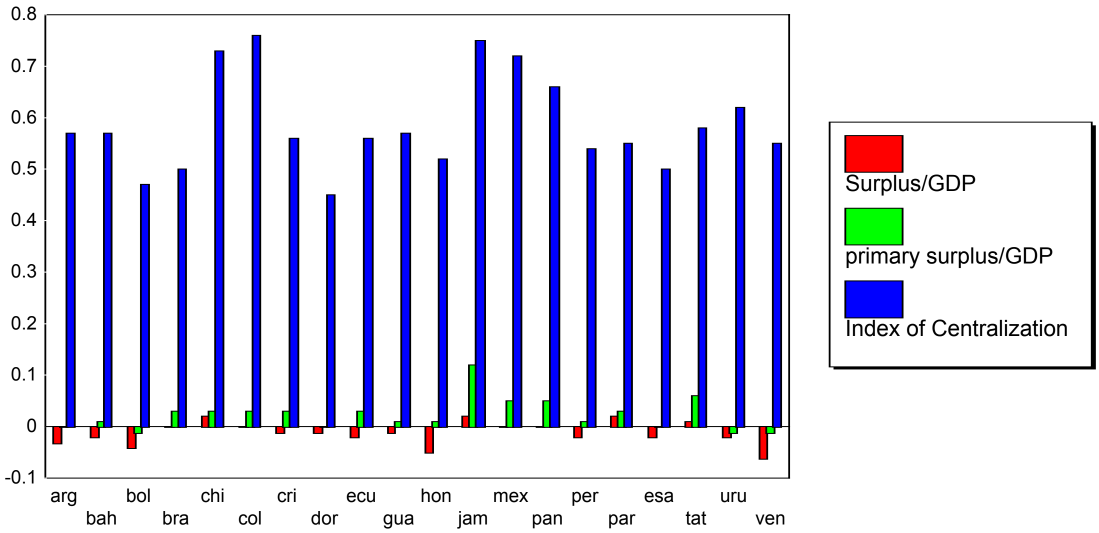
West Europe



Note: B=Belgium, DK=Denmark, F=France, D=Germany, GR=Greece, IRL=Ireland, I=Italy, L=Luxembourg, NL=Netherlands, P=Portugal, E=Spain, A=Austria, SF=Finland, S=Sweden

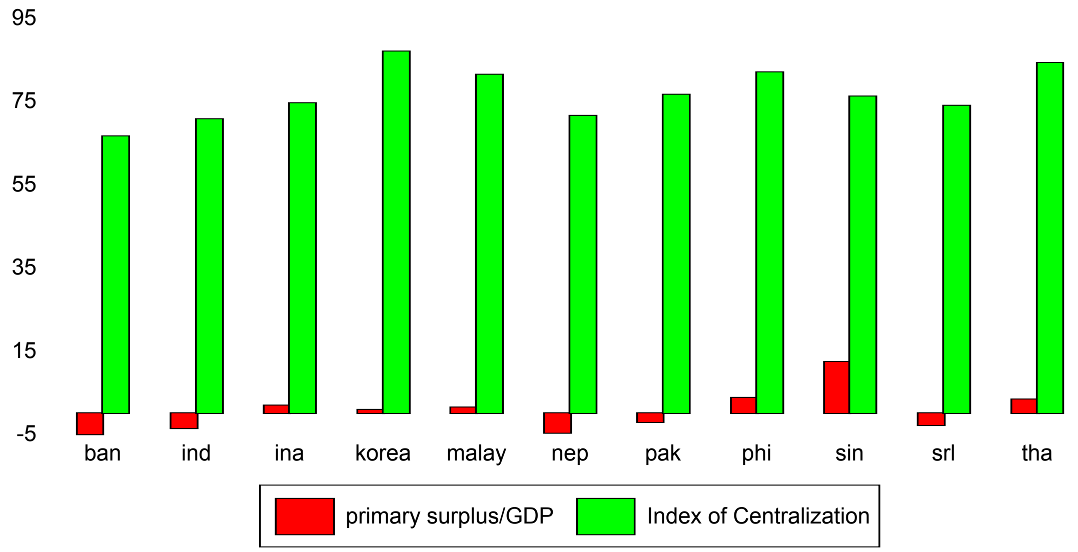
Figure 3

Latin America



Note: arg=Argentina, bah=Bahamas, bol=Bolivia, bra=Brazil, chi=Chile, col=Columbia, dor=Dominican Republic, ecu=Ecuador, Gua=Guatemala, hon=Honduras, jam=Jamaica, mex=Mexico, pan=Panama, par=Paraguay, esa=El Salvador, tat=Trinidad and Tobago, uru=Uruguay, Ven=Venezuela

Figure 4
Asian Countries



Note: ban=Bangladesh, ind=India, ina=Indonesia, malay=Malaysia, nep=Nepal, pak=Pakistan, phi=Phillipines, sin=Singapore, srl=Sri Lanka, tha=Thailand

Table 3: Simple Regressions

1. West European States

Deficit = 0.12 - 0.69*Index of Centralization R^2 = 0.37
(0.35) (0.14)

Note: 15 States, averages 1981-85, 1986-90, 1991-95, dependent variable is surplus/GDP
source: von Hagen and Harden, 1996

2. Latin American Countries

Primary Deficit= 0.10 - 0.21*Index of Centralization R^2 = 0.39
(0.03) (0.06)

Note: 28 States, average 1990-95
source: Stein et al. (1997)

3. Asian Countries

Primary Deficit = -0.35 - 0.44*Index of Centralization - 0.13*Dummy Singapur R^2 = 0.88
(0.2) (0.10) (0.02)

Note: 11 states, average 1986-95
source: Lao-Araya (1997)

Table 4: Cross Section Regression European States, Dependent Variable: Change in Debt/GDP

Variable	Coefficient	standard error	t-ratio	p
constant	3.58	.87	4.12	0.000
lagged dependent	.31	.054	5.88	0.000
real growth	-0.93	0.16	-5.71	0.000
change in unemployment rate	0.75	0.28	2.66	0.008
Real interest rate	-0.07	0.10	-0.69	0.49
2-3 parties in government	0.93	0.72	1.28	0.20
4-5 parties in government	0.76	0.90	0.37	0.37
minority government	-0.23	0.83	-0.28	0.78
Change in executive	1.59	0.45	3.55	0.0005
Percentage of cabinet seats for leftist parties	-0.53	0.64	-0.84	0.40
Index of centralization	-0.12	0.059	-2.14	0.034

Sample 1981 - 1994, 15 states, Dof 199, adjusted $R^2 = 0.51$, F(10. 199) = 22.5.

Table 5: American State Governments, Dependent Variable Deficit Ratio

Variable	Coefficient	t-value
South	-.30	-2.2
Population	.01	1.3
Population density	.0002	1.0
Urbanization	.001	.3
Per capita income	-.00	-1.0
Unemployment	.09	4.3
Share of Dependent Population	.02	.8
Share of federal grants in state income	-.06	-.9
Democrat Governor	-.18	-2.4
Upper house ruled by democrats	-.18	-1.6
Lower house ruled by democrats	-.02	-.10
Divided government	-.16	-1.8
Divided legislature	-.13	-1.4
Index of Centralization	-.07	-2.2
Constant	3.24	1.96

Note: „Divided government“ is a dummy with a one if the governor's party affiliation differs from the party holding a majority in the lower house or the upper house; „Divided legislature“ is a dummy with a one if the party holding a majority in the lower house is different from the party holding a majority in the upper house. Annual dummies suppressed. Annual data for 47 states, 1982-92. Adjusted $R^2 = 0.56$
Source: Strauch 1998

Table 6: Comparison of Committee Monitoring Power and Budgetary Institutions

State	*Ministry Match*	*Chair Proportional*	*Compel Witnesses*	*Demand Documents*	*Total*	*Centralizing Institution*
Austria	1	0	1	1	3	Contracts
Denmark	1	1	1	0	3	Contracts
Finland	0	1	0	1	2	Contracts
Luxembourg	1	1	0	1	3	Contracts
Netherlands	1	1	0	0	2	Contracts
France	0	0	1	1	2	Delegation
Germany	1	1	0	0	2	Delegation
U. K.	0	0	0	0	0	Delegation
Belgium	1	1	0	0	2	Contracts
Greece	0	0	0	0	0	
Italy	1	0	0	0	1	
Portugal	1	1	1	0	3	
Spain	1	1	1	1	4	
Sweden	1	1	0	1	3	

Source: Hallerberg (1997). The respective variable is coded as 1 if the answer is yes and 0 if it is no. The committee data is adopted from Mattson and Strøm (1995), 261-64, 279-81, and 287-90. The data on the budgetary institutions is from Hallerberg and von Hagen (Forthcoming). The first column indicates whether or not a committee's area of responsibility corresponds with a government ministry. If this correspondence exists, a committee will presumably have a greater capacity to monitor that ministry. The second category is the appointment process for the chairperson of the committee. If the chairs are distributed proportionally, it is likely that the chair will come from a different party than the respective minister, and it will be harder for the minister to conceal her actions. The last two categories measure a committee's ability to compel either witnesses or documents from the government.

Table 7: Electoral Systems in 21 OECD Countries

State	*System*	*District Magnitude.*	*ENPP*	*Effective Threshold*	*Years in the Lijphart Study*	*% One-Party Majority in Lower House*
Australia	Alternative Vote	1	2.35	35	84-90	100
Austria	2-Tier PR, Remainder Transfers	20/91	2.42	2.6	71-90	44
Belgium	PR	23	4.63	4.8	46-87	17
Canada	Plurality	1	2.37	35	45-88	60
Denmark	2-Tier PR, Adjustment Seats	7/175	4.92	2	64-88	0
Finland	PR	13	5.03	5.4	45-87	0
France	Plurality	1	3.5	35	58-81	6
Germany (West)	2-Tier PR, Adjustment Seats	1/497	2.95	5	57-83	0
Greece	'Reinforced' PR	6	2.08	16.4	74-85	95
Ireland	STV	4	2.79	17.2	48-89	36
Italy	2-Tier PR, Remainder Transfers	19/625	3.62	2	58-87	0
Japan	SNTV	4	2.88	16.4	47-90	75
Luxembourg	PR	14	3.3	5.1	45-89	0
Netherlands	PR	150	4.59	0.67	56-89	0
New Zealand	Plurality	1	1.95	35	46-90	100
Norway	PR	8/165	4.23	4	89	0
Portugal	PR	12	3.05	5.7	75-87	33
Spain	PR	6	2.72	10.2	77-89	58
Sweden	2-Tier PR	11/350	3.4	4	70-88	10
U. K.	Plurality	1	2.1	35	45-87	99
U.S.	Plurality	1	1.92	35	46-90	100

"PR" corresponds to "Proportional Representation," "STV" to "Single Transferable Vote," and "ENPP" to "Effective Number of Parliamentary Parties." All figures but those on one-party majorities come from Lijphart 1994, 17, 22, 31,33-35, 44, 160-162; Lijphart's one party majority figures were supplemented with Woldendorp, Keman, and Budge (1993). Greece, Portugal, and Spain were not democracies during the entire period, and the years covered are, respectively, 1974-90, 1975-90, and 1977-90. This data is published in various issues of the *European Journal of Political Research*, and is based on the date of an election instead of the date of investiture used for the other countries. The figures for France are just for its Fifth Republic, or 1958-90, and include the period 1986-88 when the country used a proportional representation system. The Austrian, Irish, and Portuguese data were not completely accurate in Woldendorp, Keman, and Budge (1993). The authors supplemented the Austrian and Portuguese data themselves, while Jesse (1996) was used for Ireland for the period 1951-90. District magnitude figures are rounded to the nearest whole number. Brian Woodall provided data on one-party government in Japan.

Table 8: Predicted and Actual Institutional Solutions, 1981-94

State	Predicted Institution	Actual Institution
Austria	Contracts	Contracts (1985-92)
Belgium	Contracts	Contracts (1993-94)
Denmark	Contracts	Contracts (1982-94)
Finland	Contracts	Contracts
Ireland	Contracts	Contracts (1987-94)
Luxembourg	Contracts	Contracts
Netherlands	Contracts	Contracts
Portugal	Contracts	Contracts (1994)
France	Delegation	Delegation
Germany	Delegation	Delegation
UK	Delegation	Delegation
Greece	Delegation	Fragmented Process
Italy	Contracts	Fragmented Process
Spain	Contracts	Fragmented Process
Sweden	Contracts	Fragmented Process

Table 9: American State Governments, Dependent Variable Deficit Ratio

Variable	Coefficient	t-value	Coefficient	t-value
South	-.14	-1.1	-.26	2.0
Population	-.004	-.4	-.00	.1
Population density	.0003	1.0	.00	10.0
Urbanization	-.003	-.7	.003	1.0
Per capita income	-.00	-1.1	-.00	1.25
Unemployment	.08	4.1	.10	5.0
Share of Dependent Population	-.00	-.03	-.002	.7
Share of federal grants in state income	-.11	-1.5	-.10	1.4
Democrat Governor	-.16	-2.1	-.15	2.2
Upper house ruled by democrats	-.12	-1.1	-.10	.9
Lower house ruled by democrats	-.02	-.20	.01	.01
Divided government	-.12	-1.4	-.12	1.3
Divided legislature	-.11	-1.1	-.12	1.2
Strictness of numerical constraint	-.16	-3.0	-.06	2.5
Index of centralization			-.15	2.0
Constant	2.74	1.70	3.1	1.9

Note: „Divided government“ is a dummy with a one if the governor's party affiliation differs from the party holding a majority in the lower house or the upper house; „Divided legislature“ is a dummy with a one if the party holding a majority in the lower is different from the party holding a majority in the upper house. Annual data for 47 states, 1982-92. Adjusted R^2 = 0.56 and .59.

Source: Strauch 1998

Table 10: Macroeconomic Stabilization and Budgeting Institutions
Dependent Variable: Change in Debt/GDP

Variable	Coefficient	Std. Error	t-ratio	prob
Constant	4.4	1.2	3.6	.0005
Change in Debt t-1	0.3	.06	5.1	0.0001
Change in GDP	-1.0	.2	-6.0	0.0001
Change in Unemployment Rate	0.9	.3	3.0	0.003
Change in Debt Servicing Costs	-0.03	0.1	-.3	.74
Election.	1.3	.5	2.5	.01
2-3 Party Majority Govt.	1	.7	1.4	.16
4-5 Party Majority Govt.	0.9	.8	1.1	.26
Minority Govt.	-0.4	.8	-.6	.58
Share of Cabinet Seats of Leftist Parties	-0.9	.7	-1.3	.18
Delegation Dummy	-1.9	.8	-2.2	.03
Contracts Dummy	-1.7	.63	-2.7	.01
Neggrowth * Delegation Dummy	-2.5	1.1	-2.2	.03
Neggrowth * Contracts Dummy	-0.5	.5	-1.1	.28

R squared = 53.8%   R squared (adjusted) = 50.7%

Table 11: Elections and Budgeting Institutions
Dependent Variable: Change in Debt/GDP

Variable	Coefficient	Std. Error	t-ratio	prob
Constant	3.4	1.2	2.8	.01
Change in Debt t-1	0.3	.06	5.4	0.0001
Change in GDP	-0.9	.16	-5.3	0.0001
Change in Unemployment Rate	0.9	.3	3.0	0.003
Change in Debt Servicing Costs	-0.02	0.1	-.2	.80
Election.	2.8	.8	3.6	0.0004
2-3 Party Majority Govt.	1	.7	1.4	.16
4-5 Party Majority Govt.	0.8	.8	.9	.36
Minority Govt.	-0.3	.8	-.4	.67
Share of Cabinet Seats of Leftist Parties	-0.7	.7	-1.1	0.29
Delegation Dummy	-1.7	.9	-1.9	.06
Contracts Dummy	-0.8	.7	-1.2	.24
Election * Delegation Dummy	-1.9	1.4	-1.4	.13
Election * Contracts Dummy	-3.2	1.1	-2.8	0.005

R squared: 54.3%R Squared (Adjusted) 51.3%

Table 12: The National Debt Board

Task	To announce, annually, a Debt Change Limit for the general government
Mandate	1. To safeguard the soundness and stability of public finances. 2. Without prejudice to the above, to support the general economic policies of the government.
Independence	1. Institutional home in the National Debt Institute 2. Non-renewable, staggered appointments for eight years or 1.5 times the election period of the central government whichever is larger. 3. Non-eligibility for appointments in government for five years after termination of appointment. 4. Not allowed to take instructions from government. Allowed to take advice from government only if such advice is made public. 5. Full budgetary autonomy of the National Debt Institute.
Composition	Two full-time appointments and up to five additional part-time or full-time appointments for candidates that must have recognized expertise and good standing in matters of public finances.
Enforcement	1. By law prohibiting government to exceed the annual Debt Change Limit. If actual borrowing exceeds the Debt Change Limit, spending would be restricted for the rest of the year. 2. By monitoring actual borrowing and the budget by the State Audit Institution and the Debt Monitoring Commission at the National Debt Institute in collaboration.
Accountability	1. By legal requirement to explain the derivation of the Debt Change Limit. 2. Parliament, upon recommendation by the government, can dismiss the members of the National Debt Board, however, dismissal does not revoke any Debt Change Limit already announced.
Legal Status	National Debt Institute and National Debt Board created by simple law.
Provision for Emergencies	1. Government can override Debt Change Limit following a declaration of war. 2. The National Debt Board can change the Debt Change Limit following a declaration of national disaster.

Source: von Hagen and Harden, 1994

2008		
B01-08	**Euro-Diplomatie durch gemeinsame „Wirtschaftsregierung“**	*Martin Seidel*
2007		
B03-07	**Löhne und Steuern im Systemwettbewerb der Mitgliedstaaten der Europäischen Union**	*Martin Seidel*
B02-07	**Konsolidierung und Reform der Europäischen Union**	*Martin Seidel*
B01-07	**The Ratification of European Treaties - Legal and Constitutional Basis of a European Referendum.**	*Martin Seidel*
2006		
B03-06	**Financial Frictions, Capital Reallocation, and Aggregate Fluctuations**	*Jürgen von Hagen, Haiping Zhang*
B02-06	**Financial Openness and Macroeconomic Volatility**	*Jürgen von Hagen, Haiping Zhang*
B01-06	**A Welfare Analysis of Capital Account Liberalization**	*Jürgen von Hagen, Haiping Zhang*
2005		
B11-05	**Das Kompetenz- und Entscheidungssystem des Vertrages von Rom im Wandel seiner Funktion und Verfassung**	*Martin Seidel*
B10-05	**Die Schutzklauseln der Beitrittsverträge**	*Martin Seidel*
B09-05	**Measuring Tax Burdens in Europe**	*Guntram B. Wolff*
B08-05	**Remittances as Investment in the Absence of Altruism**	*Gabriel González-König*
B07-05	**Economic Integration in a Multicone World?**	*Christian Volpe Martincus, Jennifer Pédussel Wu*
B06-05	**Banking Sector (Under?)Development in Central and Eastern Europe**	*Jürgen von Hagen, Valeriya Dinger*
B05-05	**Regulatory Standards Can Lead to Predation**	*Stefan Lutz*
B04-05	**Währungspolitik als Sozialpolitik**	*Martin Seidel*
B03-05	**Public Education in an Integrated Europe: Studying to Migrate and Teaching to Stay?**	*Panu Poutvaara*
B02-05	**Voice of the Diaspora: An Analysis of Migrant Voting Behavior**	*Jan Fidrmuc, Orla Doyle*
B01-05	**Macroeconomic Adjustment in the New EU Member States**	*Jürgen von Hagen, Iulia Traistaru*
2004		
B33-04	**The Effects of Transition and Political Instability On Foreign Direct Investment Inflows: Central Europe and the Balkans**	*Josef C. Brada, Ali M. Kutan, Taner M. Yigit*
B32-04	**The Choice of Exchange Rate Regimes in Developing Countries: A Mulitnominal Panal Analysis**	*Jürgen von Hagen, Jizhong Zhou*
B31-04	**Fear of Floating and Fear of Pegging: An Empirical Anaysis of De Facto Exchange Rate Regimes in Developing Countries**	*Jürgen von Hagen, Jizhong Zhou*
B30-04	**Der Vollzug von Gemeinschaftsrecht über die Mitgliedstaaten und seine Rolle für die EU und den Beitrittsprozess**	*Martin Seidel*
B29-04	**Deutschlands Wirtschaft, seine Schulden und die Unzulänglichkeiten der einheitlichen Geldpolitik im Eurosystem**	*Dieter Spethmann, Otto Steiger*
B28-04	**Fiscal Crises in U.S. Cities: Structural and Non-structural Causes**	*Guntram B. Wolff*
B27-04	**Firm Performance and Privatization in Ukraine**	*Galyna Grygorenko, Stefan Lutz*
B26-04	**Analyzing Trade Opening in Ukraine: Effects of a Customs Union with the EU**	*Oksana Harbuzyuk, Stefan Lutz*
B25-04	**Exchange Rate Risk and Convergence to the Euro**	*Lucjan T. Orlowski*
B24-04	**The Endogeneity of Money and the Eurosystem**	*Otto Steiger*
B23-04	**Which Lender of Last Resort for the Eurosystem?**	*Otto Steiger*
B22-04	**Non-Discretonary Monetary Policy: The Answer for Transition Economies?**	*Elham-Mafi Kreft, Steven F. Kreft*
B21-04	**The Effectiveness of Subsidies Revisited: Accounting for Wage and Employment Effects in Business R+D**	*Volker Reinthaler, Guntram B. Wolff*
B20-04	**Money Market Pressure and the Determinants of Banking Crises**	*Jürgen von Hagen, Tai-kuang Ho*
B19-04	**Die Stellung der Europäischen Zentralbank nach dem Verfassungsvertrag**	*Martin Seidel*

B18-04	**Transmission Channels of Business Cycles Synchronization in an Enlarged EMU**	*Iulia Traistaru*
B17-04	**Foreign Exchange Regime, the Real Exchange Rate and Current Account Sustainability: The Case of Turkey**	*Sübidey Togan, Hasan Ersel*
B16-04	**Does It Matter Where Immigrants Work? Traded Goods, Non-traded Goods, and Sector Specific Employment**	*Harry P. Bowen, Jennifer Pédussel Wu*
B15-04	**Do Economic Integration and Fiscal Competition Help to Explain Local Patterns?**	*Christian Volpe Martincus*
B14-04	**Euro Adoption and Maastricht Criteria: Rules or Discretion?**	*Jiri Jonas*
B13-04	**The Role of Electoral and Party Systems in the Development of Fiscal Institutions in the Central and Eastern European Countries**	*Sami Yläoutinen*
B12-04	**Measuring and Explaining Levels of Regional Economic Integration**	*Jennifer Pédussel Wu*
B11-04	**Economic Integration and Location of Manufacturing Activities: Evidence from MERCOSUR**	*Pablo Sanguinetti, Iulia Traistaru, Christian Volpe Martincus*
B10-04	**Economic Integration and Industry Location in Transition Countries**	*Laura Resmini*
B09-04	**Testing Creditor Moral Hazard in Souvereign Bond Markets: A Unified Theoretical Approach and Empirical Evidence**	*Ayse Y. Evrensel, Ali M. Kutan*
B08-04	**European Integration, Productivity Growth and Real Convergence**	*Taner M. Yigit, Ali M. Kutan*
B07-04	**The Contribution of Income, Social Capital, and Institutions to Human Well-being in Africa**	*Mina Baliamoune-Lutz, Stefan H. Lutz*
B06-04	**Rural Urban Inequality in Africa: A Panel Study of the Effects of Trade Liberalization and Financial Deepening**	*Mina Baliamoune-Lutz, Stefan H. Lutz*
B05-04	**Money Rules for the Eurozone Candidate Countries**	*Lucjan T. Orlowski*
B04-04	**Who is in Favor of Enlargement? Determinants of Support for EU Membership in the Candidate Countries' Referenda**	*Orla Doyle, Jan Fidrmuc*
B03-04	**Over- and Underbidding in Central Bank Open Market Operations Conducted as Fixed Rate Tender**	*Ulrich Bindseil*
B02-04	**Total Factor Productivity and Economic Freedom Implications for EU Enlargement**	*Ronald L. Moomaw, Euy Seok Yang*
B01-04	**Die neuen Schutzklauseln der Artikel 38 und 39 des Beitrittsvertrages: Schutz der alten Mitgliedstaaten vor Störungen durch die neuen Mitgliedstaaten**	*Martin Seidel*
2003		
B29-03	**Macroeconomic Implications of Low Inflation in the Euro Area**	*Jürgen von Hagen, Boris Hofmann*
B28-03	**The Effects of Transition and Political Instability on Foreign Direct Investment: Central Europe and the Balkans**	*Josef C. Brada, Ali M. Kutan, Taner M. Yigit*
B27-03	**The Performance of the Euribor Futures Market: Efficiency and the Impact of ECB Policy Announcements (Electronic Version of International Finance)**	*Kerstin Bernoth, Juergen von Hagen*
B26-03	**Souvereign Risk Premia in the European Government Bond Market (überarbeitete Version zum Herunterladen)**	*Kerstin Bernoth, Juergen von Hagen, Ludger Schulknecht*
B25-03	**How Flexible are Wages in EU Accession Countries?**	*Anna Iara, Iulia Traistaru*
B24-03	**Monetary Policy Reaction Functions: ECB versus Bundesbank**	*Bernd Hayo, Boris Hofmann*
B23-03	**Economic Integration and Manufacturing Concentration Patterns: Evidence from Mercosur**	*Iulia Traistaru, Christian Volpe Martincus*
B22-03	**Reformzwänge innerhalb der EU angesichts der Osterweiterung**	*Martin Seidel*
B21-03	**Reputation Flows: Contractual Disputes and the Channels for Inter-Firm Communication**	*William Pyle*
B20-03	**Urban Primacy, Gigantism, and International Trade: Evidence from Asia and the Americas**	*Ronald L. Moomaw, Mohammed A. Alwosabi*
B19-03	**An Empirical Analysis of Competing Explanations of Urban Primacy Evidence from Asia and the Americas**	*Ronald L. Moomaw, Mohammed A. Alwosabi*

B18-03	**The Effects of Regional and Industry-Wide FDI Spillovers on Export of Ukrainian Firms**	*Stefan H. Lutz, Oleksandr Talavera, Sang-Min Park*
B17-03	**Determinants of Inter-Regional Migration in the Baltic States**	*Mihails Hazans*
B16-03	**South-East Europe: Economic Performance, Perspectives, and Policy Challenges**	*Iulia Traistaru, Jürgen von Hagen*
B15-03	**Employed and Unemployed Search: The Marginal Willingness to Pay for Attributes in Lithuania, the US and the Netherlands**	*Jos van Ommeren, Mihails Hazans*
B14-03	**FCIs and Economic Activity: Some International Evidence**	*Charles Goodhart, Boris Hofmann*
B13-03	**The IS Curve and the Transmission of Monetary Policy: Is there a Puzzle?**	*Charles Goodhart, Boris Hofmann*
B12-03	**What Makes Regions in Eastern Europe Catching Up? The Role of Foreign Investment, Human Resources, and Geography**	*Gabriele Tondl, Goran Vuksic*
B11-03	**Die Weisungs- und Herrschaftsmacht der Europäischen Zentralbank im europäischen System der Zentralbanken - eine rechtliche Analyse**	*Martin Seidel*
B10-03	**Foreign Direct Investment and Perceptions of Vulnerability to Foreign Exchange Crises: Evidence from Transition Economies**	*Josef C. Brada, Vladimír Tomsík*
B09-03	**The European Central Bank and the Eurosystem: An Analysis of the Missing Central Monetary Institution in European Monetary Union**	*Gunnar Heinsohn, Otto Steiger*
B08-03	**The Determination of Capital Controls: Which Role Do Exchange Rate Regimes Play?**	*Jürgen von Hagen, Jizhong Zhou*
B07-03	**Nach Nizza und Stockholm: Stand des Binnenmarktes und Prioritäten für die Zukunft**	*Martin Seidel*
B06-03	**Fiscal Discipline and Growth in Euroland. Experiences with the Stability and Growth Pact**	*Jürgen von Hagen*
B05-03	**Reconsidering the Evidence: Are Eurozone Business Cycles Converging?**	*Michael Massmann, James Mitchell*
B04-03	**Do Ukrainian Firms Benefit from FDI?**	*Stefan H. Lutz, Oleksandr Talavera*
B03-03	**Europäische Steuerkoordination und die Schweiz**	*Stefan H. Lutz*
B02-03	**Commuting in the Baltic States: Patterns, Determinants, and Gains**	*Mihails Hazans*
B01-03	**Die Wirtschafts- und Währungsunion im rechtlichen und politischen Gefüge der Europäischen Union**	*Martin Seidel*
2002		
B30-02	**An Adverse Selection Model of Optimal Unemployment Assurance**	*Marcus Hagedorn, Ashok Kaul, Tim Mennel*
B29B-02	**Trade Agreements as Self-protection**	*Jennifer Pédussel Wu*
B29A-02	**Growth and Business Cycles with Imperfect Credit Markets**	*Debajyoti Chakrabarty*
B28-02	**Inequality, Politics and Economic Growth**	*Debajyoti Chakrabarty*
B27-02	**Poverty Traps and Growth in a Model of Endogenous Time Preference**	*Debajyoti Chakrabarty*
B26-02	**Monetary Convergence and Risk Premiums in the EU Candidate Countries**	*Lucjan T. Orlowski*
B25-02	**Trade Policy: *Institutional* Vs. *Economic* Factors**	*Stefan Lutz*
B24-02	**The Effects of Quotas on Vertical Intra-industry Trade**	*Stefan Lutz*
B23-02	**Legal Aspects of European Economic and Monetary Union**	*Martin Seidel*
B22-02	**Der Staat als *Lender of Last Resort* - oder: Die Achillesverse des Eurosystems**	*Otto Steiger*
B21-02	**Nominal and Real Stochastic Convergence Within the Transition Economies and to the European Union: Evidence from Panel Data**	*Ali M. Kutan, Taner M. Yigit*
B20-02	**The Impact of News, Oil Prices, and International Spillovers on Russian Fincancial Markets**	*Bernd Hayo, Ali M. Kutan*

B19-02	**East Germany: Transition with Unification, Experiments and Experiences**	*Jürgen von Hagen, Rolf R. Strauch, Guntram B. Wolff*
B18-02	**Regional Specialization and Employment Dynamics in Transition Countries**	*Iulia Traistaru, Guntram B. Wolff*
B17-02	**Specialization and Growth Patterns in Border Regions of Accession Countries**	*Laura Resmini*
B16-02	**Regional Specialization and Concentration of Industrial Activity in Accession Countries**	*Iulia Traistaru, Peter Nijkamp, Simonetta Longhi*
B15-02	**Does Broad Money Matter for Interest Rate Policy?**	*Matthias Brückner, Andreas Schaber*
B14-02	**The Long and Short of It: Global Liberalization, Poverty and Inequality**	*Christian E. Weller, Adam Hersch*
B13-02	**De Facto and Official Exchange Rate Regimes in Transition Economies**	*Jürgen von Hagen, Jizhong Zhou*
B12-02	**Argentina: The Anatomy of A Crisis**	*Jiri Jonas*
B11-02	**The Eurosystem and the Art of Central Banking**	*Gunnar Heinsohn, Otto Steiger*
B10-02	**National Origins of European Law: Towards an Autonomous System of European Law?**	*Martin Seidel*
B09-02	**Monetary Policy in the Euro Area - Lessons from the First Years**	*Volker Clausen, Bernd Hayo*
B08-02	**Has the Link Between the Spot and Forward Exchange Rates Broken Down? Evidence From Rolling Cointegration Tests**	*Ali M. Kutan, Su Zhou*
B07-02	**Perspektiven der Erweiterung der Europäischen Union**	*Martin Seidel*
B06-02	**Is There Asymmetry in Forward Exchange Rate Bias? Multi-Country Evidence**	*Su Zhou, Ali M. Kutan*
B05-02	**Real and Monetary Convergence Within the European Union and Between the European Union and Candidate Countries: A Rolling Cointegration Approach**	*Josef C. Brada, Ali M. Kutan, Su Zhou*
B04-02	**Asymmetric Monetary Policy Effects in EMU**	*Volker Clausen, Bernd Hayo*
B03-02	**The Choice of Exchange Rate Regimes: An Empirical Analysis for Transition Economies**	*Jürgen von Hagen, Jizhong Zhou*
B02-02	**The Euro System and the Federal Reserve System Compared: Facts and Challenges**	*Karlheinz Ruckriegel, Franz Seitz*
B01-02	**Does Inflation Targeting Matter?**	*Manfred J. M. Neumann, Jürgen von Hagen*
2001		
B29-01	**Is Kazakhstan Vulnerable to the Dutch Disease?**	*Karlygash Kuralbayeva, Ali M. Kutan, Michael L. Wyzan*
B28-01	**Political Economy of the Nice Treaty: Rebalancing the EU Council. The Future of European Agricultural Policies**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B27-01	**Investor Panic, IMF Actions, and Emerging Stock Market Returns and Volatility: A Panel Investigation**	*Bernd Hayo, Ali M. Kutan*
B26-01	**Regional Effects of Terrorism on Tourism: Evidence from Three Mediterranean Countries**	*Konstantinos Drakos, Ali M. Kutan*
B25-01	**Monetary Convergence of the EU Candidates to the Euro: A Theoretical Framework and Policy Implications**	*Lucjan T. Orlowski*
B24-01	**Disintegration and Trade**	*Jarko and Jan Fidrmuc*
B23-01	**Migration and Adjustment to Shocks in Transition Economies**	*Jan Fidrmuc*
B22-01	**Strategic Delegation and International Capital Taxation**	*Matthias Brückner*
B21-01	**Balkan and Mediterranean Candidates for European Union Membership: The Convergence of Their Monetary Policy With That of the Europaen Central Bank**	*Josef C. Brada, Ali M. Kutan*
B20-01	**An Empirical Inquiry of the Efficiency of Intergovernmental Transfers for Water Projects Based on the WRDA Data**	*Anna Rubinchik-Pessach*
B19-01	**Detrending and the Money-Output Link: International Evidence**	*R.W. Hafer, Ali M. Kutan*

B18-01	**Monetary Policy in Unknown Territory. The European Central Bank in the Early Years**	*Jürgen von Hagen, Matthias Brückner*
B17-01	**Executive Authority, the Personal Vote, and Budget Discipline in Latin American and Carribean Countries**	*Mark Hallerberg, Patrick Marier*
B16-01	**Sources of Inflation and Output Fluctuations in Poland and Hungary: Implications for Full Membership in the European Union**	*Selahattin Dibooglu, Ali M. Kutan*
B15-01	**Programs Without Alternative: Public Pensions in the OECD**	*Christian E. Weller*
B14-01	**Formal Fiscal Restraints and Budget Processes As Solutions to a Deficit and Spending Bias in Public Finances - U.S. Experience and Possible Lessons for EMU**	*Rolf R. Strauch, Jürgen von Hagen*
B13-01	**German Public Finances: Recent Experiences and Future Challenges**	*Jürgen von Hagen, Rolf R. Strauch*
B12-01	**The Impact of Eastern Enlargement On EU-Labour Markets. Pensions Reform Between Economic and Political Problems**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B11-01	**Inflationary Performance in a Monetary Union With Large Wage Setters**	*Lilia Cavallar*
B10-01	**Integration of the Baltic States into the EU and Institutions of Fiscal Convergence: A Critical Evaluation of Key Issues and Empirical Evidence**	*Ali M. Kutan, Niina Pautola-Mol*
B09-01	**Democracy in Transition Economies: Grease or Sand in the Wheels of Growth?**	*Jan Fidrmuc*
B08-01	**The Functioning of Economic Policy Coordination**	*Jürgen von Hagen, Susanne Mundschenk*
B07-01	**The Convergence of Monetary Policy Between Candidate Countries and the European Union**	*Josef C. Brada, Ali M. Kutan*
B06-01	**Opposites Attract: The Case of Greek and Turkish Financial Markets**	*Konstantinos Drakos, Ali M. Kutan*
B05-01	**Trade Rules and Global Governance: A Long Term Agenda. The Future of Banking.**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B04-01	**The Determination of Unemployment Benefits**	*Rafael di Tella, Robert J. MacCulloch*
B03-01	**Preferences Over Inflation and Unemployment: Evidence from Surveys of Happiness**	*Rafael di Tella, Robert J. MacCulloch, Andrew J. Oswald*
B02-01	**The Konstanz Seminar on Monetary Theory and Policy at Thirty**	*Michele Fratianni, Jürgen von Hagen*
B01-01	**Divided Boards: Partisanship Through Delegated Monetary Policy**	*Etienne Farvaque, Gael Lagadec*

2000

B20-00	**Breakin-up a Nation, From the Inside**	*Etienne Farvaque*
B19-00	**Income Dynamics and Stability in the Transition Process, general Reflections applied to the Czech Republic**	*Jens Hölscher*
B18-00	**Budget Processes: Theory and Experimental Evidence**	*Karl-Martin Ehrhart, Roy Gardner, Jürgen von Hagen, Claudia Keser*
B17-00	**Rückführung der Landwirtschaftspolitik in die Verantwortung der Mitgliedsstaaten? - Rechts- und Verfassungsfragen des Gemeinschaftsrechts**	*Martin Seidel*
B16-00	**The European Central Bank: Independence and Accountability**	*Christa Randzio-Plath, Tomasso Padoa-Schioppa*
B15-00	**Regional Risk Sharing and Redistribution in the German Federation**	*Jürgen von Hagen, Ralf Hepp*
B14-00	**Sources of Real Exchange Rate Fluctuations in Transition Economies: The Case of Poland and Hungary**	*Selahattin Dibooglu, Ali M. Kutan*
B13-00	**Back to the Future: The Growth Prospects of Transition Economies Reconsidered**	*Nauro F. Campos*

B12-00	**Rechtsetzung und Rechtsangleichung als Folge der Einheitlichen Europäischen Währung**	*Martin Seidel*
B11-00	**A Dynamic Approach to Inflation Targeting in Transition Economies**	*Lucjan T. Orlowski*
B10-00	**The Importance of Domestic Political Institutions: Why and How Belgium Qualified for EMU**	*Marc Hallerberg*
B09-00	**Rational Institutions Yield Hysteresis**	*Rafael Di Tella, Robert MacCulloch*
B08-00	**The Effectiveness of Self-Protection Policies for Safeguarding Emerging Market Economies from Crises**	*Kenneth Kletzer*
B07-00	**Financial Supervision and Policy Coordination in The EMU**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B06-00	**The Demand for Money in Austria**	*Bernd Hayo*
B05-00	**Liberalization, Democracy and Economic Performance during Transition**	*Jan Fidrmuc*
B04-00	**A New Political Culture in The EU - Democratic Accountability of the ECB**	*Christa Randzio-Plath*
B03-00	**Integration, Disintegration and Trade in Europe: Evolution of Trade Relations during the 1990's**	*Jarko Fidrmuc, Jan Fidrmuc*
B02-00	**Inflation Bias and Productivity Shocks in Transition Economies: The Case of the Czech Republic**	*Josef C. Barda, Arthur E. King, Ali M. Kutan*
B01-00	**Monetary Union and Fiscal Federalism**	*Kenneth Kletzer, Jürgen von Hagen*
1999		
B26-99	**Skills, Labour Costs, and Vertically Differentiated Industries: A General Equilibrium Analysis**	*Stefan Lutz, Alessandro Turrini*
B25-99	**Micro and Macro Determinants of Public Support for Market Reforms in Eastern Europe**	*Bernd Hayo*
B24-99	**What Makes a Revolution?**	*Robert MacCulloch*
B23-99	**Informal Family Insurance and the Design of the Welfare State**	*Rafael Di Tella, Robert MacCulloch*
B22-99	**Partisan Social Happiness**	*Rafael Di Tella, Robert MacCulloch*
B21-99	**The End of Moderate Inflation in Three Transition Economies?**	*Josef C. Brada, Ali M. Kutan*
B20-99	**Subnational Government Bailouts in Germany**	*Helmut Seitz*
B19-99	**The Evolution of Monetary Policy in Transition Economies**	*Ali M. Kutan, Josef C. Brada*
B18-99	**Why are Eastern Europe's Banks not failing when everybody else's are?**	*Christian E. Weller, Bernard Morzuch*
B17-99	**Stability of Monetary Unions: Lessons from the Break-Up of Czechoslovakia**	*Jan Fidrmuc, Julius Horvath and Jarko Fidrmuc*
B16-99	**Multinational Banks and Development Finance**	*Christian E.Weller and Mark J. Scher*
B15-99	**Financial Crises after Financial Liberalization: Exceptional Circumstances or Structural Weakness?**	*Christian E. Weller*
B14-99	**Industry Effects of Monetary Policy in Germany**	*Bernd Hayo and Birgit Uhlenbrock*
B13-99	**Fiancial Fragility or What Went Right and What Could Go Wrong in Central European Banking?**	*Christian E. Weller and Jürgen von Hagen*
B12 -99	**Size Distortions of Tests of the Null Hypothesis of Stationarity: Evidence and Implications for Applied Work**	*Mehmet Caner and Lutz Kilian*
B11-99	**Financial Supervision and Policy Coordination in the EMU**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B10-99	**Financial Liberalization, Multinational Banks and Credit Supply: The Case of Poland**	*Christian Weller*
B09-99	**Monetary Policy, Parameter Uncertainty and Optimal Learning**	*Volker Wieland*
B08-99	**The Connection between more Multinational Banks and less Real Credit in Transition Economies**	*Christian Weller*

B07-99	**Comovement and Catch-up in Productivity across Sectors: Evidence from the OECD**	*Christopher M. Cornwell and Jens-Uwe Wächter*
B06-99	**Productivity Convergence and Economic Growth: A Frontier Production Function Approach**	*Christopher M. Cornwell and Jens-Uwe Wächter*
B05-99	**Tumbling Giant: Germany's Experience with the Maastricht Fiscal Criteria**	*Jürgen von Hagen and Rolf Strauch*
B04-99	**The Finance-Investment Link in a Transition Economy: Evidence for Poland from Panel Data**	*Christian Weller*
B03-99	**The Macroeconomics of Happiness**	*Rafael Di Tella, Robert MacCulloch and Andrew J. Oswald*
B02-99	**The Consequences of Labour Market Flexibility: Panel Evidence Based on Survey Data**	*Rafael Di Tella and Robert MacCulloch*
B01-99	**The Excess Volatility of Foreign Exchange Rates: Statistical Puzzle or Theoretical Artifact?**	*Robert B.H. Hauswald*
1998		
B16-98	**Labour Market + Tax Policy in the EMU**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B15-98	**Can Taxing Foreign Competition Harm the Domestic Industry?**	*Stefan Lutz*
B14-98	**Free Trade and Arms Races: Some Thoughts Regarding EU-Russian Trade**	*Rafael Reuveny and John Maxwell*
B13-98	**Fiscal Policy and Intranational Risk-Sharing**	*Jürgen von Hagen*
B12-98	**Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero**	*Athanasios Orphanides and Volker Wieland*
B11A-98	**Die Bewertung der "dauerhaft tragbaren öffentlichen Finanzlage"der EU Mitgliedstaaten beim Übergang zur dritten Stufe der EWWU**	*Rolf Strauch*
B11-98	**Exchange Rate Regimes in the Transition Economies: Case Study of the Czech Republic: 1990-1997**	*Julius Horvath and Jiri Jonas*
B10-98	**Der Wettbewerb der Rechts- und politischen Systeme in der Europäischen Union**	*Martin Seidel*
B09-98	**U.S. Monetary Policy and Monetary Policy and the ESCB**	*Robert L. Hetzel*
B08-98	**Money-Output Granger Causality Revisited: An Empirical Analysis of EU Countries (überarbeitete Version zum Herunterladen)**	*Bernd Hayo*
B07-98	**Designing Voluntary Environmental Agreements in Europe: Some Lessons from the U.S. EPA's 33/50 Program**	*John W. Maxwell*
B06-98	**Monetary Union, Asymmetric Productivity Shocks and Fiscal Insurance: an Analytical Discussion of Welfare Issues**	*Kenneth Kletzer*
B05-98	**Estimating a European Demand for Money (überarbeitete Version zum Herunterladen)**	*Bernd Hayo*
B04-98	**The EMU's Exchange Rate Policy**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B03-98	**Central Bank Policy in a More Perfect Financial System**	*Jürgen von Hagen / Ingo Fender*
B02-98	**Trade with Low-Wage Countries and Wage Inequality**	*Jaleel Ahmad*
B01-98	**Budgeting Institutions for Aggregate Fiscal Discipline**	*Jürgen von Hagen*
1997		
B04-97	**Macroeconomic Stabilization with a Common Currency: Does European Monetary Unification Create a Need for Fiscal Insurance or Federalism?**	*Kenneth Kletzer*
B-03-97	**Liberalising European Markets for Energy and Telecommunications: Some Lessons from the US Electric Utility Industry**	*Tom Lyon / John Mayo*
B02-97	**Employment and EMU**	*Deutsch-Französisches Wirtschaftspolitisches Forum*
B01-97	**A Stability Pact for Europe**	*(a Forum organized by ZEI)*

ISSN 1436 - 6053

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn

Walter-Flex-Strasse 3
D-53113 Bonn
Germany

Tel.: +49-228-73-1732
Fax: +49-228-73-1809
www.zei.de