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Budgeting Procedures and Fiscal Performance in the European Communities

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Abstract

We investigate the role of budgeting procedures for fiscal performance. Using 1970s and 1980s EC fiscal data and expert characterizations of budgeting procedures, we find strong empirical support for the 'structural hypothesis' that a budgeting process with strategic dominance of the prime or finance (or treasury) minister over the spending ministers, limits on parliamentary amendment power, and limiting changes during the execution process is strongly conducive to fiscal discipline. In contrast, the role of long-term fiscal constraints in achieving fiscal discipline, while generally positive, is not statistically significant. The results suggest that institutional reform of the budgeting process is a promising avenue to achieve and maintain a larger degree of fiscal discipline.

Non-technical Abstract

The approach of a monetary union in Europe has raised concerns about the appropriate fiscal policy regime in the EC. One important worry is that a systematic lack of fiscal stability of some members of the European monetary union might create political pressures for monetary expansions which the European central bank will find hard to escape, resulting in persistent inflation. As a result, the revisions of the Treaties of Rome adopted in Maastricht in December 1991 incorporate a procedure to supervise the fiscal performance of the members by the Community and to increase fiscal discipline.

The basic approach taken in the Maastricht Accord is one of controlling, ex-ante and ex-post, the Member States' fiscal performance by the Community, spelling out budget criteria and procedures for monitoring fiscal performance in the EC. To be effective, such a strategy must rely on the credibility of the penalties it entails for violating these criteria. Experience with budget norms in the U.S. suggests that governments find ways to circumvent fiscal restraints in practice, with the result that they are largely ineffective. In the European context, the absence of a strict enforcement mechanism of fiscal constraints among sovereign nations other than the threat or possible application of peer pressure and financial sanctions raises the problem of how to ensure the prospects of budget criteria to be successful.

This study looks at the issue from another perspective. We start from the presumption that budgeting procedures, i.e., the rules according to which budgets are drafted by a government, amended and passed by parliament, and implemented by the government, are important for the degree of fiscal stability attained. In other words, we claim that institutions shape the outcome of the political processes evolving within them. One variant of this claim - that the greater credibility of an independent central bank's commitment to price stability leads to lower inflation rates - is, of course, one of the important justifications for the European monetary union itself. Our main proposition is that a budgeting procedure enabling a government to commit itself to fiscal discipline is an essential condition for fiscal stability. Commitment mechanisms are important on all three levels of the budget process, the bargaining within the cabinet of ministers, the passing of the budget law through parliament, and the execution of the budget.

Budgeting in government is a process of allocating resources to specific political programs and distributing the cost over current and future tax payers. There are (at least) two aspects of this process which generate problems of fiscal discipline and give rise to the importance of institutions. One is the difference between the short-run and the long-run net benefits of fiscal programs, which, if policy makers discount the future, induces a bias towards shifting tax burdens to future tax payers via deficit financing. The other is the difference between the perceived marginal benefit and marginal cost of a fiscal program. Spending ministers and individual members of parliament are exposed to political pressures from interest groups and, since taxes fall on the general public while expenditures benefit particular groups, are biased towards large expenditures and large deficits. The prime minister and the finance or treasury minister and broadly-based political parties in parliament, in contrast, do not depend on particular interest groups to the same extent; their decisions are more strongly guided by general economic considerations. The distribution of power between these two groups, therefore, determines the size of the spending bias built into the budgeting procedure.

In view of this, we develop two propositions: (1) Institutions conducive to long-run orientation of fiscal policies enhance fiscal discipline. The

basic idea is that long-run orientation mitigates the conflict between short-run and long-run net benefits. We call this the long-term-constraint hypothesis. (2) Institutions which weaken the role of special interests in the budgeting process are conducive to fiscal discipline. The basic idea is that such institutions mitigate the spending bias arising from the difference between beneficiaries and the general tax payer. We call this the structural hypothesis. We test both hypotheses using fiscal data from the EC member countries of the 1970s and 1980s, and characterizations of the national budgeting procedures obtained from expert assessments.

The main empirical result is a strong support for the structural hypothesis. Specifically, our results suggest that a budgeting process lending the prime or finance (or treasury) minister a position of strategic dominance over the spending ministers, limiting the amendment power of parliament, and limiting changes in the budget during the execution process is strongly conducive to fiscal discipline. In contrast, the role of long-term fiscal constraints in achieving fiscal discipline, while in most cases positive, is not found to be significant. While we do not conclude from this that long-term constraints lack importance, our conclusion is that a long-term constraint alone is insufficient to overcome the problems of fiscal discipline for a country whose budgeting procedure has structural weaknesses.

Our results suggest that institutional reform of the budgeting process is a promising avenue to achieve a larger degree of fiscal discipline. Such reform may be required in some countries to achieve the fiscal targets spelled out recently in the Maastricht Accord, which can be regarded as a special form of long-term constraints on fiscal policies. What is more, institutional reform meeting the requirements and particularities of individual member countries may be a promising route to maintain fiscal stability in the third stage of European Monetary Union as a complement to the imposition of fiscal criteria under the current institutional arrangements.

1. Introduction

The approach of a monetary union in Europe has raised concerns about the appropriate fiscal policy regime in the European Community (EC). One important aspect of this is the link between the degree of fiscal discipline the member governments of a monetary union adopt and the union's long-run inflation rate.[1] Many participants in this discussion fear that a systematic lack of fiscal stability of some members of the European monetary union might create pressures on the European central bank to conduct a too expansionary monetary policy for the Community, with the result of lasting, excessive inflation. Some have even argued that the implicit possibility of taxing citizens of other countries which exists, if the union's central bank can be induced to bail out governments in financial crises, would lead to a deterioration of fiscal discipline in the Community, once the European monetary union is in place. As a result, the revisions of the Treaties of Rome adopted in Maastricht in December 1991 incorporate a procedure to supervise the fiscal performance of the members by the Community and to increase fiscal discipline.

Although the Maastricht Accord calls for the adoption of appropriate budgetary procedures by the member states[2], the basic approach it takes is one of cotrolling, ex-ante and ex-post, their fiscal performance by the Community. The hope is that, by spelling out budget criteria and procedures and penalties for dealing with violations of these criteria, member governments can be induced to fiscal stability, i.e., long-run budget balance or debt growth not exceeding nominal GDP growth. To be effective, such a strategy must rely on the credibility of the threat it implies for members with deviant fiscal policies. Experience with budget norms in the U.S. suggests that governments find ways to circumvent fiscal restraints in practice, with the result that they are largely ineffective (von Hagen, 1991, 1992). In the European context, the absence of a strict enforcement mechanism of fiscal constraints among sovereign nations other than the threat or

possible application of peer pressure and financial sanctions raises the problem of how to ensure prospects of budget criteria to be successful.

This study looks at the issue from another perspective. We start from the presumption that budgeting procedures, i.e., the rules according to which budgets are drafted by a government, amended and passed by parliament, and implemented by the government, have important consequences for the degree of fiscal stability attained. In other words, we claim that institutions shape the outcome of the political processes evolving within them. This requires that institutions are fixed relative to the political processes they govern, i.e., the formation of rules and procedures for decision making is not part of the same political process. Instead, the actors are legally bound or have a common understanding that the institutions should be regarded as given. Of course, this does not exclude that the institutions themselves can be changed over time, however, doing so would require a different political process. One variant of this basic claim - that the greater credibility of an independent central bank's commitment to price stability leads to lower inflation rates - is, of course, one of the important justifications for the European monetary union itself. Following the same logic, our approach leads to the conclusion that institutional reform of the budgeting process may be a promising alternative for the EC to foster fiscal stability.

The main proposition of this paper is that a budgeting procedure enabling a government to commit itself to fiscal discipline is an essential condition for fiscal stability. Commitment mechanisms are important on all three levels of the budget process, the bargaining within the cabinet of ministers, the passing of the budget law through parliament, and the execution of the budget. Commitment is facilitated by restricting the effect bargaining processes on each level can have on total spending and revenues. It can be provided by formal guidelines determining the outcome of the budgetary process

Fig. 1: General Government Expenditure

(perc. of GDP, 1961-90)

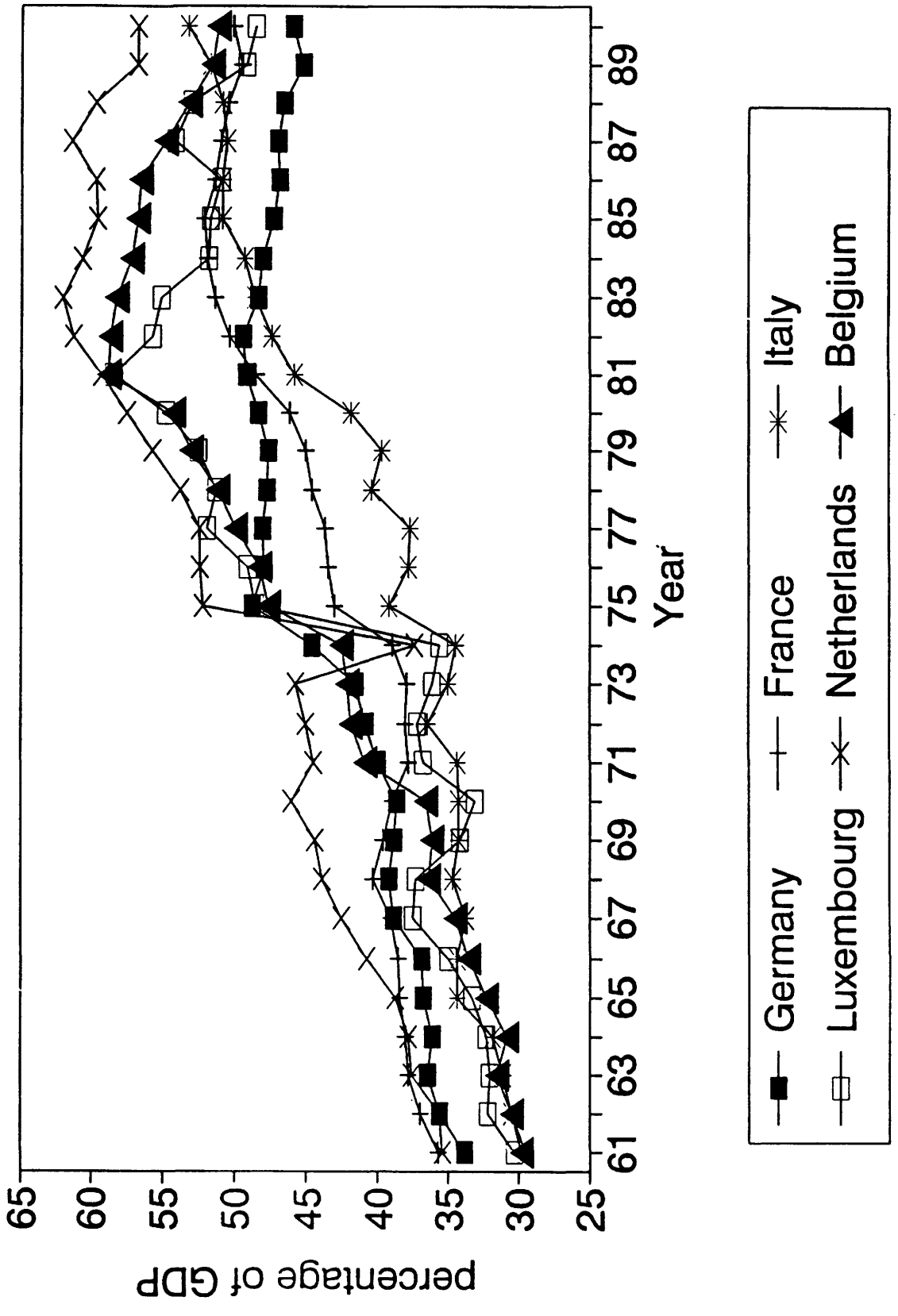
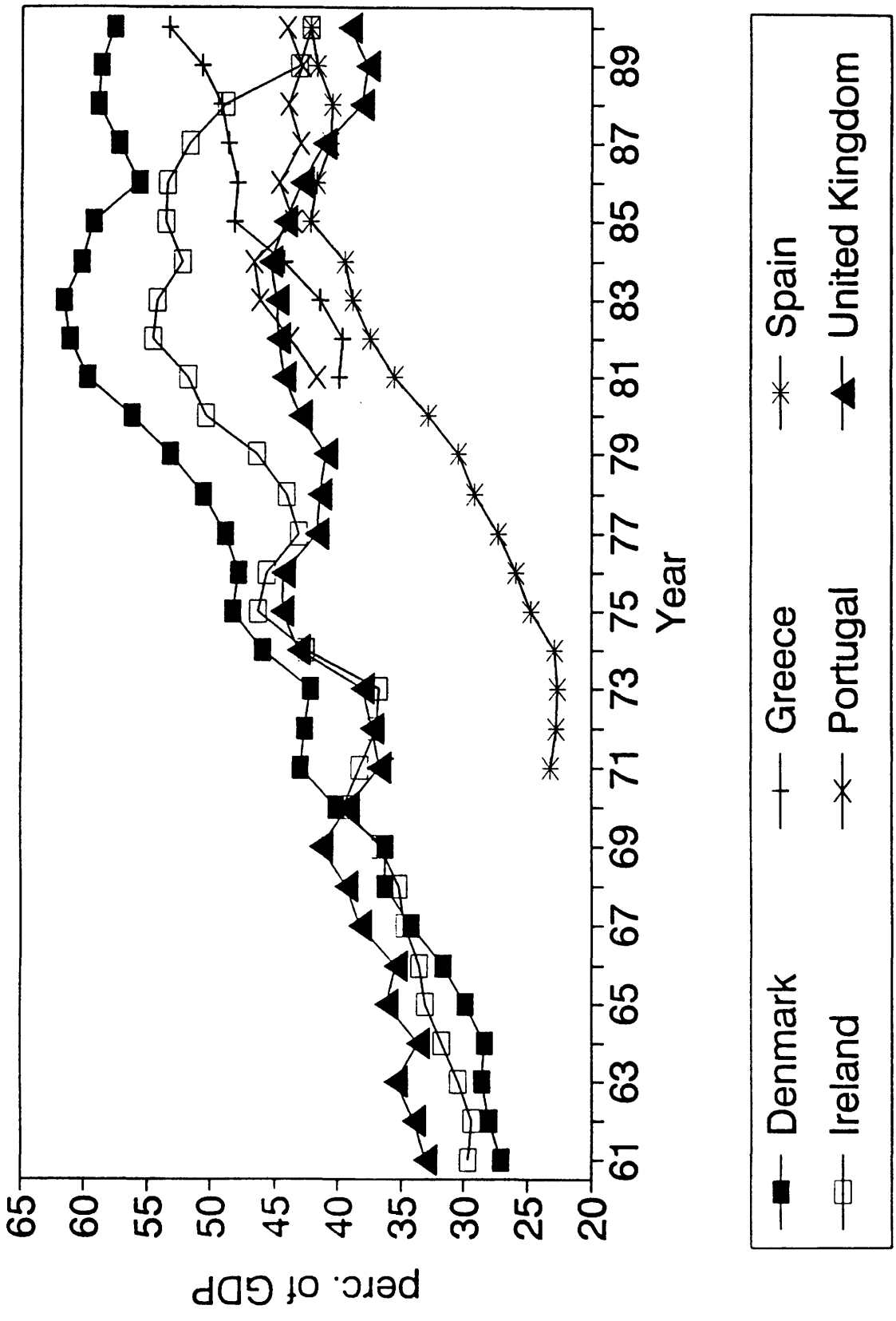


Fig. 2: General Government Expenditure

(perc. of GDP, 1961-90)



or by restricting the scope of changes participants in the bargaining process can make; it can be the result of legal restrictions on the process or of long-standing traditions which are expected, both by the participants in the budgetary process and the public, to be respected in the future (North and Weingast, 1989). We develop and test this proposition in two versions: One focusing on the existence and implementation of long-term fiscal plans and the other focusing on the structural characteristics of the budgeting process. Our empirical results using data from the EC suggest that structural characteristics are important. Specifically, dominance of the prime minister or finance minister over the spending ministers in setting budget parameters, limitations to modifications of the budget proposal by the legislature, and limitations to budget changes during the execution are institutions conducive to fiscal stability.

This study proceeds as follows. Section 2 presents some stylized evidence of fiscal performance in the Community over the past two decades. Section 3 outlines our basic theoretical argument. Section 4 begins with a review of the main characteristics of the budgeting procedures currently used in the 12 countries of the Community based on a questionnaire sent to the member Finance Ministries or Treasuries in 1991. Section 5 presents the empirical tests of our main hypotheses of interest. Section 6 summarizes our main conclusions.

2. Fiscal Performance in the EC, 1971-90: Some Stylized Facts

Figures 1 through 8 give an impression of the fiscal performance of the 12 EC member states over the past decades. Figures 1 and 2 depict the growth of general government expenditures relative to gross domestic product (GDP). Throughout the 1960s, there was remarkable similarity among the six EC members and Ireland, Denmark and the U.K.. Ratios of expenditures to GDP varied

Fig. 3: Net Government Lending

(perc. of GDP, 1961-90)

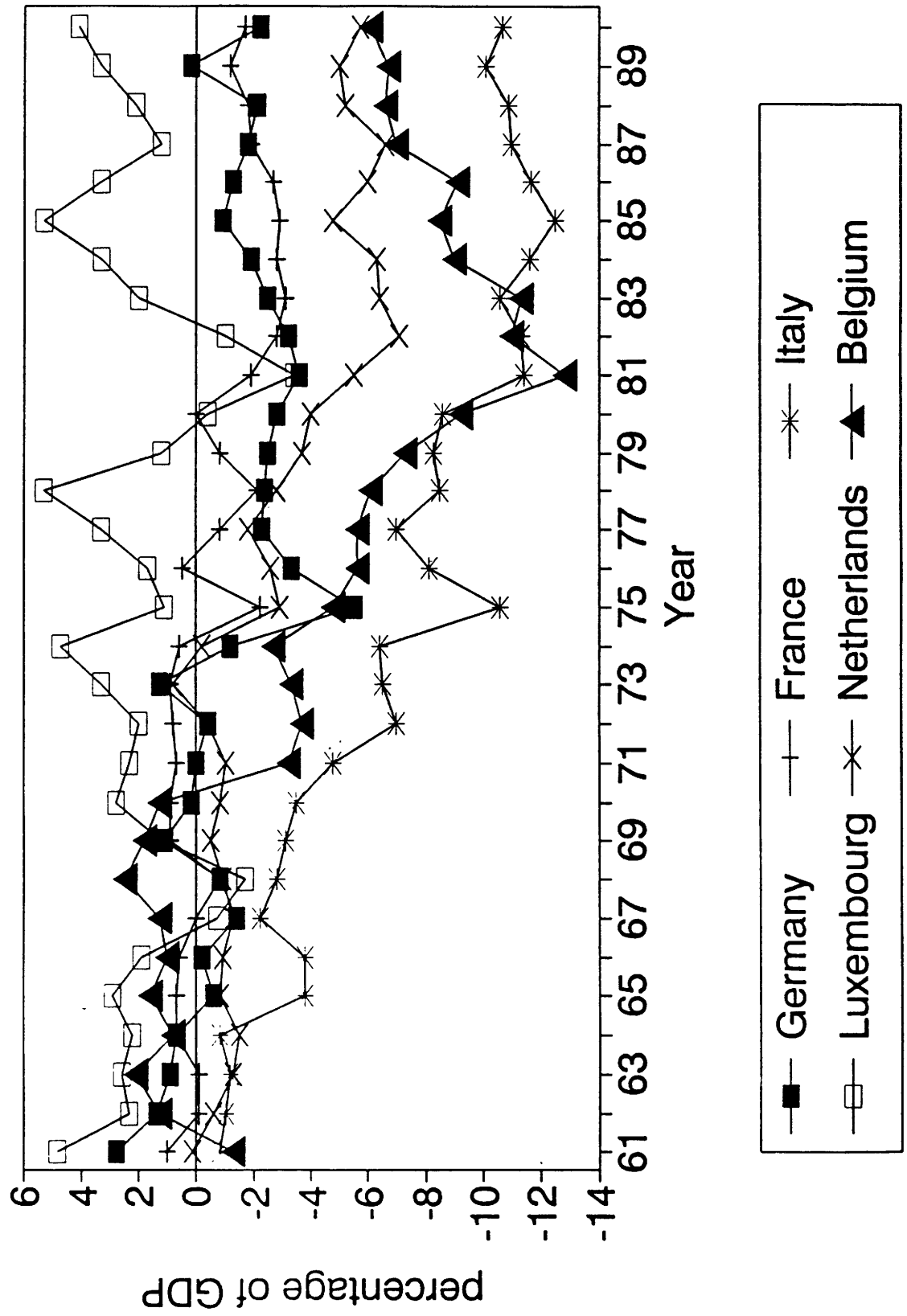
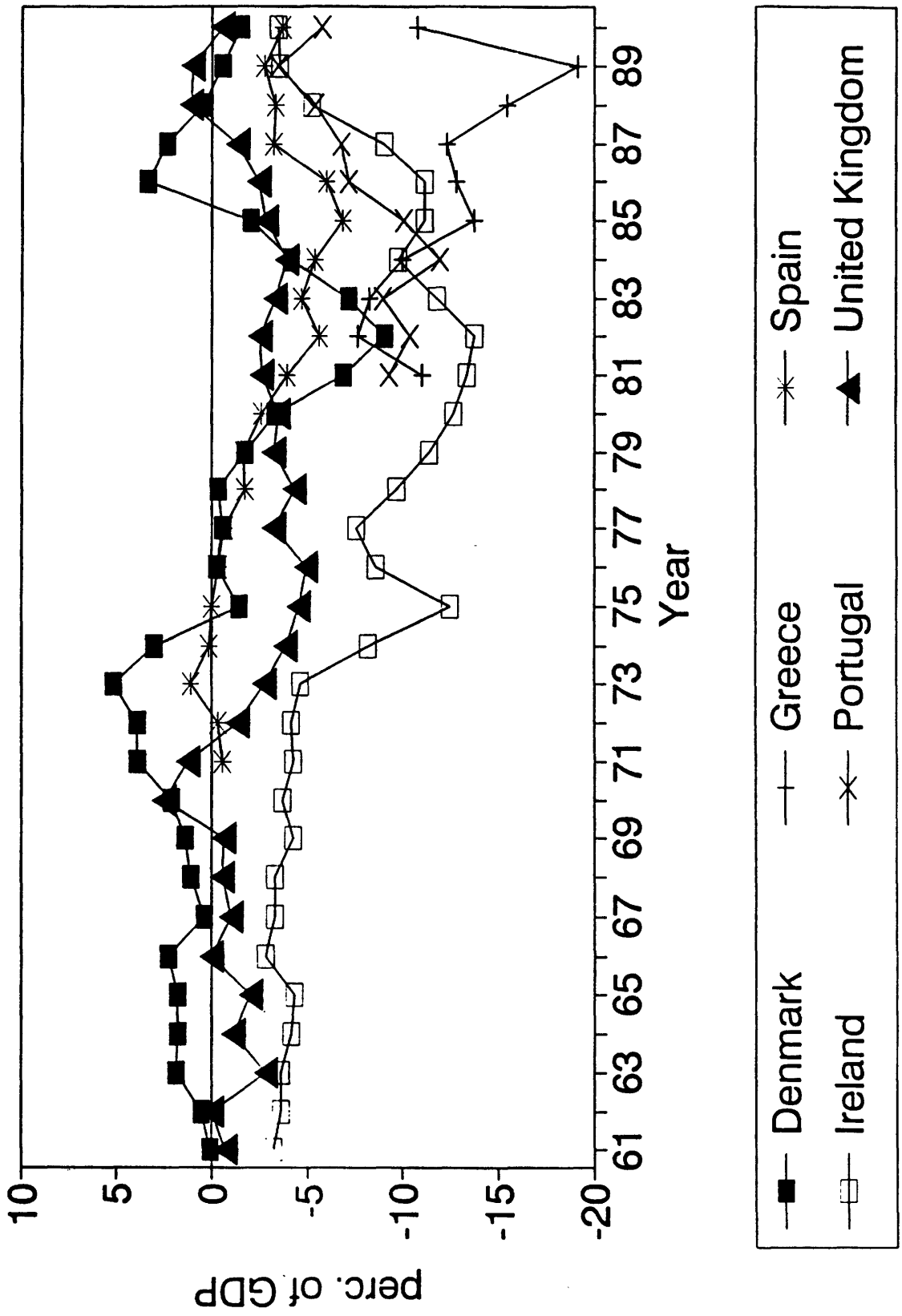


Fig. 4: Net Government Lending
(perc. of GDP, 1961-90)



between 25 and 35 percent at the beginning of this decade; by its end, they had risen to between 30 and 40 percent. In fact, these ratios generally declined in the late the 1960s. The 1970s brought two important changes: a faster rise of expenditures relative to GDP in most countries - the exceptions being France, and, after initial surges, Britain and Germany - and an increase in the variance of these ratios across the EC members. Expenditure ratios generally peaked in the early 1980s, followed by moderate declines in Germany, France, and the U.K., and more significant reductions in Denmark, Belgium, Luxembourg, Ireland, and the Netherlands. In contrast, Greece, Spain, and Italy maintained positively trending expenditure ratios throughout the decade.

Figures 3 and 4 show the development of net government lending, i.e., total revenues less expenditures, throughout the same period.[3] Once again, during the 1960s we find a striking similarity among the European countries. The ratios of net lending to GDP differed by a maximum of about seven percent. Once again, the 1970s brought much larger variation among these countries. After 1975, Italy, Belgium and Ireland had the most rapidly deteriorating budgets. Belgium and Ireland showed some improvement in the mid- and late 1980s, but still retained some of the largest relative deficits in the group. Denmark and Luxembourg are most noteworthy for the wide swings in their net lending ratios during this period. In contrast, France, Germany and the U.K. enjoied steady developments and moderate deficits. With the exception of Italy, Greece and Belgium, the EC countries achieved a greater degree of convergence of net lending ratios again towards the end of the 1980s.

Figures 5 and 6 look at the relative budget balances in terms of net government lending excluding interest payments, called primary net lending for short.[4] Primary net lending shows to what extent governments accumulate new debt during a period over and above what is required to service existing interest obligations and thus gives a better indication than total net lending

Fig. 5: Net Government Lending

(Excl. Interest, perc. of GDP, 1971-90)

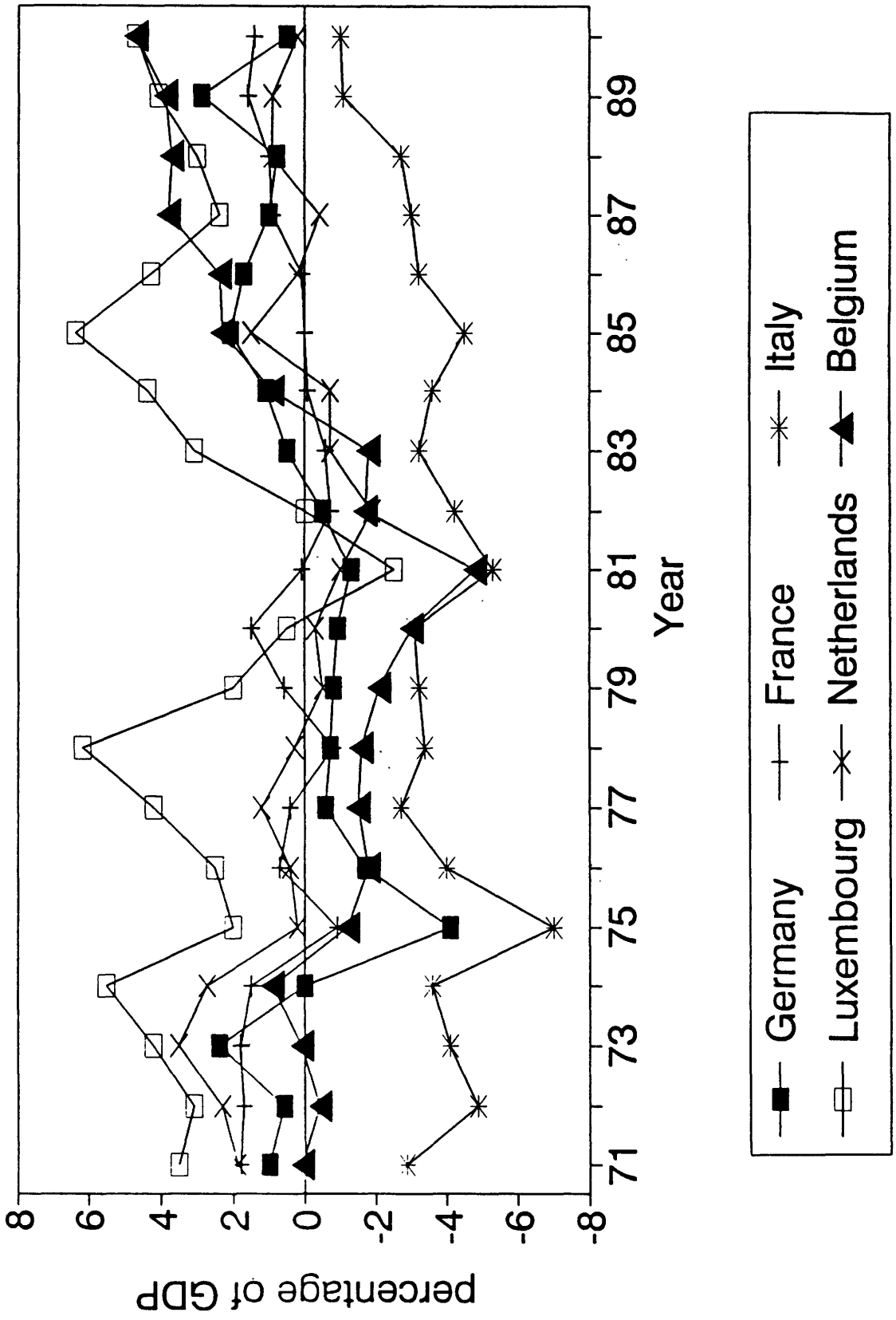
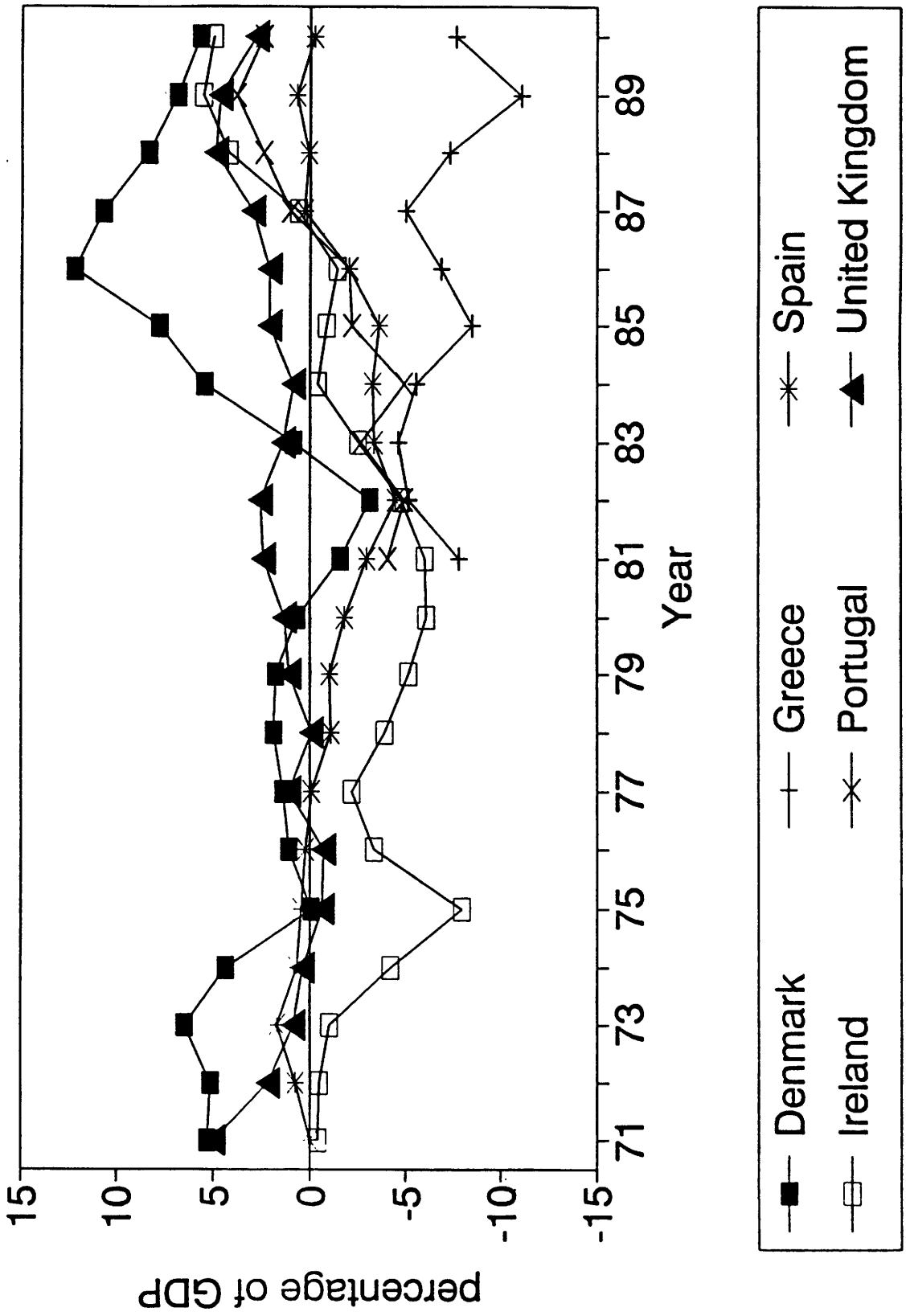


Fig. 6: Net Government Lending

(Excl. Interest, perc. of GDP, 1971-90)



of a government's need and willingness to change budget developments. Here, we observe a greater degree of conformity among the 12 countries throughout the whole period. Only Italy and Ireland started the 1970s with primary deficits (net borrowing), only Italy and Greece ended the 1980s in this way. Denmark and Luxembourg are most noteworthy for the large swings in their primary net lending. Ireland's primary deficit deteriorated very rapidly in the mid-1970s, it improved steadily from six percent to a surplus of six percent of GDP between 1981 and 1989. While France and the U.K. had primary surpluses during most of this period, Germany experienced deficits from 1974 through 1982.

Figures 7 and 8 demonstrate the ratios of gross public debt to GDP from 1971 to 1990. At the beginning of the 1970s, the EC was divided in two groups, a relatively high-debt group including Italy, Belgium, the Netherlands, Ireland, and the U.K., with ratios of debt to GDP between 50 and 85 percent, and a relatively low-debt group comprising Denmark, West Germany, France, Luxembourg, Spain, Greece, and Portugal, with ratios between 10 and 30 percent. By the end of the 1980s, three groups are discernable: Luxembourg, France, Spain, the U.K. and Germany, all with debt to GDP ratios of no more than 40 percent; Denmark, the Netherlands, Portugal and Greece, whose ratios are between 60 and 80 percent; and Belgium, Ireland, and Italy, whose ratios are above 80 percent.

Apart from these differences in the debt ratios themselves, the dynamics vary significantly among the 12 countries. The U.K. and Luxembourg consistently experienced falling debt ratios throughout the period, and the French ratio was virtually flat. All other countries experienced significant growth in their debt ratios following the second oil price shock in 1979; onlyIreland and Denmark had significantly rising debt ratios already earlier in the 1970s. Only these two countries managed to reduce their debt ratios significantly during the 1980s, while other countries merely succeeded in

Fig. 7: Gross Public Debt
(perc. of GDP, 1971-90)

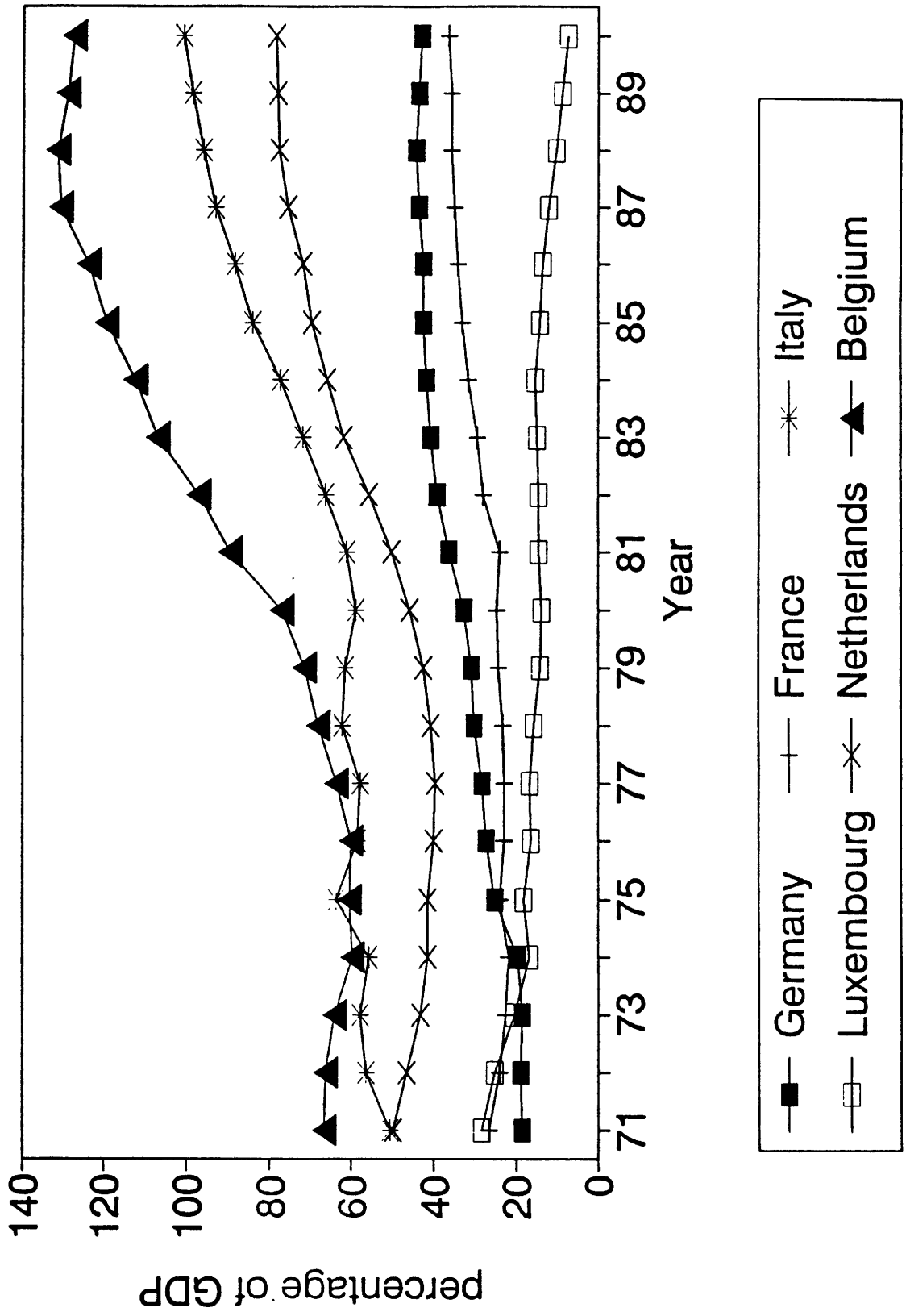


Fig. 8: Gross Public Debt
(perc. of GDP, 1971-90)

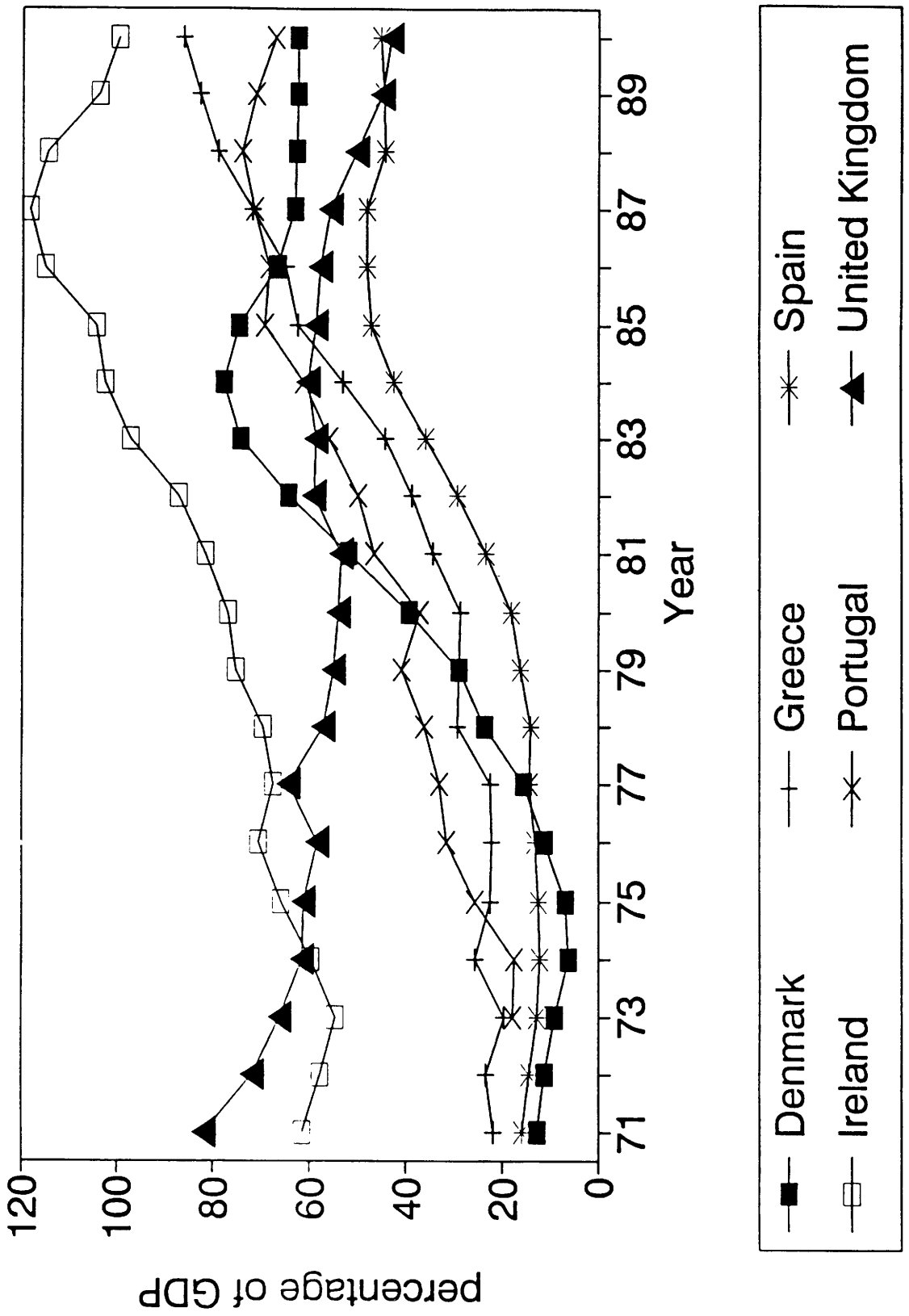


Table 1: Average Net Government Lending, 1971 - 1990

Country	1971-75	1976-80	1981-85	1986-90
	Net Lending of Government (% of GDP)			
Belgium	-3.54	-6.76	-10.52	-7.10
Denmark	2.94	-1.20	-5.86	0.86
Germany	-1.16	-2.66	-2.42	-1.44
Greece	-	-	-10.16	-15.70
Spain	0.22	-0.32	-5.30	-3.78
France	0.16	-0.64	-2.70	-1.86
Ireland	-6.72	-10.00	-12.00	-6.48
Italy	-7.06	-8.10	-11.48	-10.88
Luxembourg	2.68	2.22	1.24	2.80
Netherlands	-0.74	-2.98	-6.02	-5.70
Portugal	-	-	-10.16	-5.72
U. K.	-2.20	-3.80	-3.02	-0.42
EC Average	-1.54	-3.42	-6.53	-4.62
St.D.	3.43	3.82	4.29	5.18
Median	-1.16	-2.91	-6.02	-5.70
	Net Government Lending Excluding Interest (% of GDP)			
Belgium	-0.10	-2.00	-1.02	3.70
Denmark	4.26	1.38	1.90	8.78
Germany	-0.02	-0.94	0.38	1.38
Greece	-	-	-6.32	-7.62
Spain	0.74	-0.76	-3.56	-0.22
France	1.18	0.48	-0.26	1.00
Ireland	-2.28	-4.16	-2.92	2.80
Italy	-4.50	-3.28	-4.16	-2.20
Luxembourg	3.66	3.08	2.28	3.70
Netherlands	2.12	0.22	-0.56	0.36
Portugal	-	-	-3.76	2.32
U.K.	1.58	0.54	1.88	3.50
EC Average	0.66	-0.54	-1.51	1.46
St.D.	2.61	2.17	2.73	3.94
Median	0.74	-0.76	-1.02	2.32

Table 2: Average Gross Public Debt, 1971 - 1990

Country	1971-75	1976-80	1981-85	1986-90
	Gross Public Debt (% of GDP)			
Belgium	63.5	68.04	105.08	128.44
Denmark	9.12	23.72	68.68	63.58
Germany	20.10	29.82	40.16	43.82
Greece	22.52	26.34	46.58	77.06
Spain	13.48	15.06	35.58	46.06
France	23.78	23.52	29.26	35.35
Ireland	59.92	71.96	94.68	110.34
Italy	56.88	59.88	72.14	95.30
Luxembourg	21.68	15.28	14.54	10.16
Netherlands	44.54	41.88	60.74	76.26
Portugal	20.13	35.80	56.70	70.50
U.K.	68.56	57.80	58.12	50.40
EC Average	35.35	39.09	56.86	67.27
St. D.	21.66	20.43	26.17	33.23
Median	22.52	29.82	56.70	63.58

preventing further increases. The three countries in the high-debt group of 1990 were in the high-debt group of 1971; four of five countries in the low-debt group of 1990 were in the low-debt group of 1971. Only the U.K. moved from being the high-debt group in 1971 to the low-debt group in 1990. In sum, relative debt performances are very persistent in Europe.[5]

Tables 1, 2, and 3 illustrate the same developments by reporting five-year moving averages of net government lending, primary net government lending, gross public debt, and general government expenditure, all expressed as fractions of GDP. The rising standard deviations of the first three variables over this period reflect the increasing disparity in fiscal performance among the 12 European countries. Only the standard deviation of expenditures ratios declines towards the end of the 1980s.

While the preceding graphs and tables demonstrate considerable variation of fiscal outcomes in the EC, they do not tell us anything about the source of these differences. Two extreme scenarios are possible: Fiscal outcomes in individual countries could be completely determined by country-specific, mutually uncorrelated shocks. Alternatively, fiscal outcomes could reflect country-specific responses to the same shock(s). Consider the following two-country model as an illustration:

$$\begin{aligned} y_{i,t} &= \beta_i x_t + u_{i,t} \\ y_{j,t} &= \beta_j x_t + u_{j,t} \\ cov(u_{i,t}, u_{j,t}) &= 0, \end{aligned} \tag{1}$$

where $y_{i,t}$ denotes country i's fiscal outcome variable, x_t is the underlying shock common to both countries, the coefficient β describes a country's reaction to the common shock, and u is its reaction to purely country-specific shocks. The first scenario of purely country-specific shocks implies $x_t = 0$, which in turn implies that $y_{i,t}$ and $y_{j,t}$ are uncorrelated. The second scenario

Table 3: Average Government Expenditure

Country	1971-75	1976-80	1981-85	1986-90
	Government Expenditure (% of GDP)			
Belgium	42.98	51.32	57.96	53.46
Denmark	44.36	51.32	60.44	57.66
Germany	43.16	47.90	48.44	46.32
Greece	-	-	42.70	49.94
Spain	23.60	29.18	38.70	41.32
France	39.12	44.54	50.86	50.48
Ireland	40.18	45.88	53.30	47.84
Italy	35.84	39.50	48.38	51.42
Luxembourg	38.84	51.92	54.58	51.20
Netherlands	44.96	54.38	60.58	58.88
Portugal	-	-	44.34	43.50
U.K.	39.90	42.30	44.66	39.78
EC Average	39.29	45.80	50.41	49.32
St. D.	6.20	7.50	7.14	5.94
Median	39.12	45.88	48.88	49.94

Table 4: Factor Analysis of Government Expenditure, Net Lending, and Debt

Country	Government Expenditure		Net Lending less Interest Paid		Gross Public Debt	
	Variance explained	Factor pattern	Variance explained	Factor pattern	Variance explained	Factor pattern
Belgium	96.5	+ n	99.2	+ +	98.1	+ n
Denmark	94.1	+ -	84.3	+ n	96.4	+ n
Germany	90.0	- +	92.7	- n	95.5	- +
Greece	76.0	n n	94.5	+ n	83.3	n -
Spain	96.4	+ -	98.7	+ +	96.3	+ -
France	97.0	- -	95.6	- -	96.6	- -
Ireland	90.0	+ +	95.0	+ +	95.9	+ +
Italy	93.5	+ -	90.9	+ n	97.0	- -
Luxembourg	85.0	+ n	98.8	- +	92.9	+ n
Netherlands	93.2	+ -	96.3	+ +	96.7	+ -
Portugal	16.5	n n	96.4	+ n	20.7	n n
United Kingdom	91.8	- +	98.2	- +	94.9	- +

Note: Variance explained is the percentage of variance explained by two common factors. Factor patterns: '+' or '-' indicates that the estimated coefficient for this factor is above or below the average estimate for all 12 countries. 'n' indicates factor is not significant at the 10 percent level. Period for estimation: 1971 - 1990; 1981 - 90 for Greek and Portuguese expenditure ratios.

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holds when $u_{i,t} = u_{j,t} = 0$, and β_i differs from β_j. Note that we can extend equation (1) in a simple way to contain two common shocks:

$$\begin{aligned} y_{i,t} &= \beta_{1,i}x_{1,t} + \beta_{2,i}x_{2,t} + u_{i,t} \\ y_{j,t} &= \beta_{1,j}x_{1,t} + \beta_{2,j}x_{2,t} + u_{j,t} \\ cov(u_{i,t},u_{j,t}) &= 0, \end{aligned} \qquad (2)$$

in which case the two outcomes are less than perfectly correlated, even if there are no country-specific shocks, provided that the pairs of reaction coefficients are different between the countries.

To see which of these two paradigms describes the European case best, we apply factor analysis to our ratios of general government spending, net government lending, and gross public debt to GDP. This technique allows to estimate the unobserved common shocks explaining a set of time series, their 'common factors', corresponding to the variables $x_{1,t}$ and $x_{2,t}$ in model (2). By construction, these shocks are uncorrelated with each other and with the country-specific shocks. Having obtained estimates of these factors, we can then use regression analysis to see how much of the variance of the observed fiscal outcomes is explained by reactions to common shocks as opposed to country specific shocks. The results of this procedure are summarized in Table 4. For each variable, two common factors were estimated. The first of each pair of columns indicates the percentage of the total variance of the variable explained by a country's reaction to the two common shocks. For all three variables, we find that almost all the variance is explained by the two common factors. Greece and Portugal are the only two exceptions to this result.[6] The second column in each pair gives some information about the country's reaction to the common factor as determined by the regression analysis. Here, a '+' means that the regression coefficient on this factor is significant and above the average of the significant estimates for all 12 countries, a '–' indicates a significant coefficient below the average estimate, and a 'n' indicates that the factor was not significant in the regression. The main conclusion from this exercise is that fiscal policies in the EC countries, as described by deficits, spending and debt patterns, can best be characterized by country-specific reactions to common shocks, rather than responses to country-specific shocks. To the extent that fiscal institutions determine a country's fiscal-

policy response to economic shocks, institutional differences across these countries may be important to explain this variation in fiscal outcomes.

In Table 5, we address the relationship between government expenditures and net lending. According to a popular hypothesis, large and growing deficits - and, therefore, growing debt to GDP ratios - are caused by large and growing levels of government expenditure (see e.g. Roubini and Sachs, 1989a, Larkey et al., 1981). If this was true, greater fiscal discipline could be achieved by reducing government spending. To test this hypothesis, we check for Granger-

Table 5: Causality of Government Expenditure for Net Lending

Country	R^2 of Test Regression	F-Test for Causality	F-Test for Serial Correlation of Residuals
Belgium	0.89	0.16	0.95
Denmark	0.76	0.41	0.56
Germany	0.44	0.19	0.93
Greece	0.83	0.53	0.30
Spain	0.54	0.30	0.41
France	0.53	0.91	0.64
Ireland	0.83	0.08	0.79
Italy	0.87	0.04	0.42
Luxembourg	0.45	0.83	0.80
Netherlands	0.87	0.08	0.93
Portugal	0.95	0.09	n.a.
United Kingdom	0.61	0.33	0.84

Note:Tests are for Granger-causality of changes in the expenditure/GDP ratio for net government lending / GDP. Test regression includes two lags of the dependent and two lags of the independent variable. Sample period is 1961 - 1990 except for Spain (1971 - 1990), Greece (1980-1990) and Portugal (1980 - 1990). Tests for serial correlation of residuals check the significance of four a test regression of the residuals from the causality test regression on four of own lags. All entries are probabilities of F values larger than estimated F's under the Null-hypotheses of non-causality and no serial correlation.

causality of government spending for net lending, both measured relative to

GDP.[7] Defining d_t as the ratio of net lending to GDP and g_t as the ratio of expenditure to GDP, we estimate the following regression model:

$$d_t = \alpha_0 + \alpha_1 d_{t-1} + \alpha_2 d_{t-2} + \gamma_1 \Delta g_{t-1} + \gamma_2 \Delta g_{t-2} + e_t \quad , \tag{3}$$

where e_t is a serially uncorrelated regression error. The test for Granger-causality in this context is an F-test on the joint significance of γ_1 and γ_2.

The first column in Table 5 shows that the test regressions explain most of the variance of the dependent variable. The second one indicates that expenditure ratios do not generally Granger-cause net lending ratios, if standard significance levels are applied. Italy is the only exception.[8] The last column shows that the regression errors are indeed serially uncorrelated, an important condition for the reliability of the F-test. Overall, Table 5 produces two interesting findings: First, the regression R^2's show that the low-debt countries of 1990, Luxembourg, Spain, France, Germany, and the U.K., have the smallest degree of persistence in net lending ratios in the sense that their past net lending ratios are the least helpful to predict current ratios. This suggests that countries which manage to change their budgets less easily over time are more prone to large deficits and debt. Second, with the exception of Italy, the simple hypothesis that rising deficits are the result of growing expenditures is not warranted by the data.

While tables 4 and 5 compare time series properties of the data across countries, table 6 takes a different perspective and compares average relative performances among the 12 European countries during the 1980s. The table is based on the moving averages calculated in table 1. After ordering the 12 countries according to the size of each variable, we compute the Spearman rank correlation coefficients shown in table 6. The first four coefficients - all significantly positive - confirm and extend the earlier finding that relative

Table 6: Rank Correlation Coefficients

Items	1981–85	1986–90
Net Lending 1981–85 vs. Net Lending 1986–90	0.85 (.0005)	—
Net Lending Excl. Interest, 1981–85 vs. 1986–90	0.75 (0.005)	—
Gross Public Debt, 1981–85 vs. 1986–90	0.89 (0.00)	—
Government Spending, 1981–85 vs. 1986–90	0.80 (0.001)	—
Net Lending vs. Net Lending Excl. Interest	0.72 (0.002)	0.62 (0.03)
Net Lending vs. Gross Public Debt	−0.82 (0.001)	−0.81 (0.001)
Net Lending Excl. Interest vs. Gross Public Debt	−0.25 (0.43)	−0.14 (0.649)
Net Lending vs. Government Spending	0.01 (0.983)	−0.09 (0.779)
Net Lending Excl. Interest vs. Government Spending	0.57 (0.055)	0.14 (0.665)
Gross Public Debt vs. Government Spending	0.36 (0.245)	0.30 (0.354)

Note: All variables measured as percentages of GDP. Upper entries are Spearman rank correlation coefficients. Entries in parantheses are the probability estimates for t-tests that the correlation coefficient is zero.

rankings in fiscal performances are very persistent over time. That is, a country that was ranked highly in terms of, say, its net lending ratio in the early 1980s was very likely to be ranked highly in the second half of this decade. The fifth row of table 6 indicates that countries with relatively high (low) net lending ratios tend to be countries with relatively high (low) primary net lending ratios. The fifth row indicates that the same is true with regard to net lending ratios and gross public debt ratios.

The following rows of table 6 show that there is no significant

correlation between a country's rank in primary net lending and its rank in gross public debt. That is, there is no systematic link between relatively high (low) primary deficits and relatively high (low) debt levels. Furthermore there are no systematic relationships between relatively large deficits, large primary deficits, or large debt ratios and relatively large expenditure ratios. Once again, this refutes the simple notion that large deficits or large debts are due to excessive spending.

3. Budgeting Procedures and Fiscal Outcomes: Theory

The previous section has demonstrated the significant variation in the fiscal performance of the EC member countries over the past two or three decades. Despite the differences in outcomes it suggests that fiscal policies in the EC were mainly driven by shocks common to all countries. The interesting question then is, what explains the large differences in their reactions?

Economic Models of Fiscal Performance

Conventional economic analysis does not say much about the determinants of fiscal performance. It generally takes fiscal policy as exogenously determined by political processes. One strand of literature tries to explain the secular growth of government expenditures relative to the economy, a tendency first formulated as 'Wagner's Law' (Wagner, 1890). Although the link between economic growth and the relative size of government expenditures, which Wagner attributed to the growing responsibilities of government in the process of industrialization, seems apparent for many countries at first glance, empirical studies generally found no or little support for the 'Law' (e.g. Larkey et al., 1981; Cameron, 1978). Other attempts at generalizing empirical observations have been equally unsuccessful to withstand closer

statistical scrutiny.[9]

Another line of research attempts to identify fiscal policy reaction functions linking fiscal variables such as expenditures or deficits to macro economic variables, such as growth or unemployment. Roubini and Sachs (1989a) estimate expenditures and revenues reaction functions for 15 OECD governments. They find that expenditure ratios, on average across the OECD, respond negatively to output growth and positively to rising unemployment rates; revenue-to-GDP ratios respond negatively to output growth and negatively to unemployment rates. They conclude that the slowdown in economic growth and the rise in unemployment after the first oil price shock in 1973 were responsible for the subsequent rise in government expenditures relative to GDP.

Roubini and Sachs's argument would suggest, however, that the rise in expenditures explains much of the deterioration of budget deficits in the 1970s. Earlier, we saw that this simple relationship is not confirmed by our data. Since their estimated reaction functions are the same across countries, differences in the observed outcomes would have to be due to differences in the economic shocks individual governments were reacting to, which is not consistent with our earlier observations, either. Even if different reaction functions were estimated, their approach leaves the question of why such different reactions occurred unanswered.

The same authors (1989b) take a step in a different direction, linking fiscal performance to political characteristics. They argue that government deficits relative to GDP have been largest in OECD countries with relatively unstable governments. More specifically, while the post-1973 slowdown in economic growth and rise in unemployment explain the rise in expenditure and deficits in the OECD, they find that "multi-party coalition governments, especially those with a short expected tenure, are poor at reducing budget deficits" (ibid., p. 922). Roubini and Sachs propose three intuitive

explanations for this finding: The diversity of interests and constituencies of coalition partners, a tendency of coalitions to be status-quo biased, as individual coalition members can block changes from the status quo but cannot organize enough support to push through a change from it, and a lack of enforcement mechanisms for cooperative behavior - which, by assumption, would foster fiscal discipline - in short-lived coalitions.

Roubini and Sachs's argument is, however, not entirely convincing. Their view of unstable governments presupposes that individuals or parties take office for a short time and then disappear from the government sphere. Commitment to longer-run oriented policies does not pay off for such politicians, hence their unwillingness to combat deficits and avoid the accumulation of future tax liabilities through the creation of public debt. However, even if governments change relatively frequently, it may still be true that the members of government are drawn from a pool of candidates or parties which does not change much over time. In such an environment, commitment to longer-run goals does pay off, because government politicians can expect that they or their party will have another turn in the future. While Roubini and Sachs's data suggests that countries with large deficits tend to have unstable governments, it does not show that countries with small deficits exhibit more government stability than others. This suggests the importance of other, omitted political characteristics.

Political Economy of Budgeting Procedures

Recent politico-economic literature has explored the role of institutional arrangements governing the budgeting process, voting arrangements and commitment mechanisms for fiscal performance. Although this literature is heavily influenced by the peculiarities of the U.S., there are general lessons to infer from this research. The most important one is that

institutional structures, i.e., the arrangements assigning the roles individual participants play and the scope and sequence of decisions, have important effects on the final outcomes of the budgeting process. Here, we review some of the main arguments.

In the most primitive form of a budgeting process, budgets would be voted by parliament after a general debate in which each member of parliament submit can proposal. Arrow's (1963) well-known Impossibility Theorem implies that such a procedure does not generally lead to an equilibrium outcome. Only under restrictive conditions on the preferences of the members of parliament does a majority rule induce an equilibrium. Of course, such is not the practice of actual budgeting procedures. In practice, budgeting procedures are divided between government or parliamentary committees drafting a proposal, parliament which may amend the proposal subject to certain restrictions and pass it, and again the executive carrying out the budget law. The politico-economic literature focuses on how the specific institutional arrangements affect the existence and the properties of the equilibrium outcome.

Shepsle (1979a, b) distinguishes three characteristics of budgeting procedures. The division of labor arrangement assigns individual actors in the process to specific roles. For example, a typical European arrangement is that government drafts a budget proposal to be presented to the legislature.[10] The arrangement may be that the proposal is drafted by all cabinet members together or in bilateral talks between the finance (or treasury) minister and the various spending ministers. In the U.S., in contrast, the division of labor arrangement is a system of parliamentary appropriations committees. A specialization of labor arrangement is an assignment of jurisdictions to individual groups of actors. A committee may have jurisdiction over only one dimension or several dimensions of government services. Spending ministers usually only have jurisdiction over their own field. Finally, an amendment

control rule specifies what type of amendments the legislature may bring up against the budget proposal. Shepsle considers four types of amendment rules. Under an open rule, all amendments are permissible. Under a closed rule, parliament can only agree or disagree, in which case a fall-back budget is adopted, e.g., the previous one. Under a boundary rule, amendments cannot make budget parameters exceed or fall short of certain limits. Finally, under a germaneness rule, only such amendments can be considered which pertain to the matter currently under discussion.

The importance of the division of labor arrangement is that it determines the agenda setter for the subsequent steps of the budget procedure, i.e., the agent presenting proposals for budget changes over the status quo. This is important, because the proposed changes will depend on the preferences of the agenda setter. If amendments are restricted, the agenda setter can condition the outcome of the process by the choice of a proposal. The specialization of labor arrangement is crucial because it determines what kind of choices the agenda setter can make. In the simplest case, where each committee has jurisdiction over only one budget dimension, its choices are limited to a mere 'more or less' of the relevant variable. In contrast, if the committee has jurisdiction over more than one dimension, its choices can involve trade-offs among the relevant activities. Finally, the amendment control rule determines the power the agenda setter has relative to the legislature. The more restrictive the rule, the more the legislature is bound by the proposal; under an open amendment rule, the situation is equivalent to the primitive budgeting procedure described above.

Shepsle's work generates a number of important insights. First, appropriate institutional structures generate equilibrium outcomes under fairly general assumptions about the agents' preferences, and, in particular, in situations in which no equilibrium exists in the primitive set-up. This

underlines the importance of institutional arrangements for fiscal outcomes. Second, the characteristics of the particular equilibrium outcome depends on the combination of all three institutional characteristics. This implies that different institutional set-ups among the EC countries may explain different reactions to the same underlying shocks. Third, the status quo will be most powerful in determining the outcome, if there is a one-to-one mapping between parliamentary committees and jurisdictions, and if the legislature is bound by a rule that prohibits amendments if the committee proposes the status quo. Thus, regardless of whether or not the government is formed by a stable coalition - which would determine the assignment of individuals to committees or ministries but would not the affect budgeting procedure - institutional structures are important determinants of how likely a deviation from status quo will be.

Division and specialization of labor arrangements together determine the degree of centralization of the budgeting process. In the European context, we distinguish, within government, between a decentralized approach, in which each spending minister with authority over one budget dimension is engaged in bilateral talks with the finance or treasury minister, and a centralized approach, in which the cabinet as a whole discusses the budget proposals. In the parliamentary procedure, the relevant distinction is between a sequence of votes proceeding on an item-by-item basis, or a general vote on the entire budget following a general debate. The importance of this aspect comes from the limits it puts on universalism and reciprocity (Alt and Chrystal, 1981). Universalism refers to the property of budget proposals to 'contain something for everyone', i.e., to distribute favors more generously than an individual decision maker would want. Reciprocity refers to the principle of not attacking another person's appropriation proposal in return for her not attacking one's own. Both tend to increase expenditures.

Chrystal and Alt summarize the basic argument asfollows: Consider a government where each spending minister pursues only his individual interest and the budget law requires a minimal winning coalition within the cabinet. Under such circumstances, it is always rational for a minister to vote against other ministers' proposals for increasing their budgets on cost-benefit grounds. By implication, no minister is able to push an expansion of his budget through and government settles on the cheapest possible budget, although each minister would like a larger one. One way to get around this is to engage in mutual agreements, i.e., proposals which benefit more than one minister, or to agree tacitly not to vote down each others' proposals. The result is that each spending minister obtains a larger budget. Chrystal and Alt argue that pairwise bargaining between the finance minister and the spending minister favors universalism and reciprocity. They base their view on reports that British Cabinet ministers refrain from attacking spending requests from other departments and the observation that the British system does embed pairwise bargaining. Beyond that empirical observation, however, their argument seems implausible. Tacit agreements require monitoring to be effective, which is easier in multilateral bargaining situations than in decentralized ones, because the former give all participants the opportunity to observe each others' behavior. Furthermore, universalism requires the possibility to decide over multiple budget dimensions simultaneously, which would typically not be possible in a decentralized setting. We will hypothesize, therefore, that both practices are more limited in decentralized than in centralized procedures.

Ferejohn and Krehbiel (1987) analyze the importance of the sequence of decisions in the budgeting process for the final outcome. Specifically, they compare a process in which appropriations are voted individually and the overall budget size is a residual with one in which the budget size is voted

(5)

first and the structure of the budget is determined afterwards, given the total size. Contrary to popular belief, the latter procedure does not always lead to a smaller budget than the first. When voting on the total size, decision makers anticipate the limits they create for subsequent allocations. Decision makers with strongly skewed preferences in favor of particular budget items are likely to produce larger budgets in the two-step procedure, because they do not accept the implicit need to trade off individual expenditures in the second step. In contrast, decision makers with more balanced preferences are likely to find smaller budget agreements in this way.

Mackay and Weaver (1979) show that, again contrary to popular belief, committees with the power to propose budgets for particular government services do not always propose a larger budget than the median voter would propose, even if the committee members' preference for the particular service are much stronger than the median voter's preference. Applying their argument to Europe, this means that proposals put forth by spending ministers do not necessarily aim at larger spending for their jurisdiction than proposals resulting from a general debate.

North and Weingast (1989) analyze the role of British fiscal institutions introduced after the Glorious Revolution of 1688. The new fiscal constitution resulted in a specific division of labor between the Crown, Parliament, and the Bank of England and created an effective commitment mechanism for the Crown to serve its debt obligations. Comparing public finances in Britain before and after the Revolution suggests that these changes facilitated a more stable and reliable fiscal policy. Bordo and White (1992) compare British and French public finances between 1790 and 1814 and conclude that institutional deficiencies in the French system undermined the credibility of the French government and forced France to conduct significantly less efficient and stable fiscal policies than Britain during

that period.

A Simple Model of the Budgeting Process

According to Wildavsky (1975, p. 4) the budget process is a mechanism through which political interest groups "bargain over conflicting goals, make side-payments, and try to motivate one another to accomplish their objectives". In essence, it is a device for political conflict resolution. In this section, we propose a simple model characterizing the budgeting process as it is found in the EC countries, and derive some hypotheses concerning fiscal discipline.

Our model describes the budgeting process in three stages. On the first stage, government prepares a budget draft to be presented before parliament. The government comprises spending ministers, a finance or treasury minister presiding over financial resources, and a prime minister acting as the chairman.[11] Conflicts of interest between the ministers must be resolved in the drafting process. On the second stage, the budget is submitted to parliament, which can amend the proposal and either pass or reject it. We think of this primarily as a bargaining process between government, which now represents a unified position expressed in its proposal, and the parties represented in parliament, which either support or oppose the government. On the third stage, the budget law is executed and further modifications of the law may be possible.

To characterize the process, we assume that taxes are not earmarked for special purposes. Spending ministers are interested in expanding the resources of their own ministries, but indifferent about the resources of other ministries. Their political success is measured in terms of the size of their budgets. In contrast, the prime minister and the finance minister are not bound by particular interests – or not to the same extent – and, therefore,

are more constraint by considerations of general public welfare than the spending ministers. For a given amount of total spending, increasing the general tax burden of the economy reduces public welfare.

Spending and financing government programs involve different time horizons. We assume that the benefits from spending money for the majority of government programs are obtained immediately or over a relatively short time period. In contrast, the welfare effects of higher taxes imposed on current tax payers are felt to a large extent only in the medium and long run, since they involve private sector adjustment to changes in tax incentives or net asset returns. In addition, we assume that tax payers are at least partly non-Ricardian, so that deficit financing allows to shift part of the tax burden to finance current expenditures on future tax payers.[12] Finally, we assume that politicians discount the future, so that present or near pay-offs of their actions are weighed more heavily than those in the more distant future.

Spending ministers are inherently biased to push for increased spending of their own ministries, since the resulting taxes or deficits to finance the extra expenditure fall on the general public (or, in the case of deficits, on the general public in the future), while the spending benefits their own constituency and raises their political support. A budget conflict between two spending ministers, A and B, therefore, has the structure described in fig. 9. Here, we compare two basic strategies: small and large expenditures. If both choose small expenditures, the resulting level of taxes and the deficit remain small, if both choose large expenditures, taxes and the deficit are large. Both spending ministers receive the same pay-offs - denoted by the numbers in the upper left corner for A and the lower right corner for B, when they adopt the same strategy. Each would prefer an outcome in which the other chooses the small expenditure size. However, because a minister faces a loss of political support if his colleague reaps a larger allocation within a given budget than

Figure 9:

Ministry A strategies	Ministry B strategies: small expenditures	Ministry B strategies: large expenditures
small expenditures	40 low taxes, small deficit 40	20 medium taxes, medium deficit 60
large expenditures	60 medium taxes, medium deficit 20	50 high taxes, large deficit 50

he does, the equilibrium is the large budget with high taxes and a large deficit. That is, the spending bias works against fiscal discipline.

The prime minister and the finance minister have a larger tendency to limit spending in order to restrain the level of present and future taxation.[13] From their perspective, the preferred outcome would be that both spending ministers adopt the small-expenditures strategy, especially so in times where the 'status-quo' budget has high levels of spending and taxation and a high deficit to begin with.

An important aspect of the process within government concerns the sequence of decisions determining the size of the budget. In a 'bottom-up' approach, the total size is determined residually after collecting spending requests from all ministries. Alternatively, the cabinet may agree on a general constraint, first, and decide on individual allocations or the structure of the budget given this constraint afterwards. The general constraint may fix the overall size of the budget, total expenditures or the deficit, or consist of a 'golden rule' clause, i.e., the provision that deficits cannot exceed investment or capital expenditures. Constraints fixing only the deficit or a golden rule clause would, however, be less binding for

future decisions than total expenditures or the overall size. A general constraint can be strengthened against universalism and reciprocity by giving the prime minister (or the finance minister) the authority to fix the overall size before individual budgets are determined.

Another characteristic of the process within government concerns the participation in decisions. Budget decisions may be reached by the entire cabinet collectively, or, alternatively, through bilateral discussions between the finance minister and each of the spending ministries. Finally, we can distinguish budget processes by the extent to which they connect the current budget to past and future budgets through multi-period budget plans. If multi-period budget plans exist at all, they may be regarded primarily as a general orientation or as a binding constraint.

The government's budget proposal is submitted to parliament where it becomes subject to another bargaining process..Members of parliament represent local or other constituencies and are, therefore, characterized by a similar - if not stronger - spending bias as spending ministers. On the other hand, members of parliament are bound by party discipline. European parties, which are collections of groups of constituencies, are likely to give larger weight to the general interest - as opposed to particular constituencies - in party decisions than individual members of parliament would do in the absence of party discipline. Furthermore, for the members of the party or the parties backing the government in office, party discipline entails voting to support the government, even if the outcome does not fully match the preferences of the individual member of parliament.

Parliament's role is to amend the budget proposal, and to pass or to reject it. While government sets the agenda for the parliamentary debate, its proposal will anticipate parliament's reaction to it. The relationship between government and parliament is characterized, first, by the scope of amendments

parliament can consider. In the simplest case, there may be no restrictions on amendments at all. Otherwise, amendments may only be permitted for certain parts of the budget, or parliament may be restricted to amendments proposing increases in expenditures only if they identify the necessary sources of additional finance, or only such amendments that do not (or only negatively) affect the overall size of the budget.

The second dimension of the relationship between parliament and government concerns the political implications of rejecting the budget favored by the government. The strategic effect of the possibility to reject the budget proposal is two-fold. On the one hand, the more likely a rejection leads to the demise of the government, the more it is in government's interest to propose a budget that can be expected to find a solid majority in parliament. This tends to weaken the position of government in the process. On the other hand, members of the parties supporting government in parliament will refrain from proposing changes to the budget proposal if doing so may entail the fall of the government, unless the changes are regarded of outmost importance. This second effect tends to strengthen government's position in the process. While the combined effect is ambiguous, we assume that the latter effect prevails.

Another dimension of the relationship between government and parliament is the quality of information the budget proposal conveys about public finances and government's intentions. A low degree of informativeness allows government to send mixed signals about its fiscal intentions, making parliament's task of monitoring the budget more difficult. At the same time, the informativeness of the budget also determines the degree to which the budget can be monitored effectively by political forces outside parliament, e.g. the media.

Voting procedures within parliament can be characterized by the order and scope of the votes. As within government, they determine the extent to

which reciprocity and universalism can prevail. Parliament may debate and then vote on the entire budget in one step. Alternatively, it may discuss and vote on the budget item by item, possibly followed by a general vote on the budget as a whole. Finally, parliament may first vote on the overall budget size and then debate and vote over the individual items. We conjecture that the latter approach is most conducive to fiscal discipline, while the first approach is most likely to result in large budgets and large deficits.

The third stage of the budget procedure contains the execution of the budget law under the control of government. During the execution new demands for spending or reduced taxation occur in response to unforeseen economic events, as well as discrepancies between planned and actual revenues and expenditures. As in the drafting process, we assume that, for their political interests, spending ministers are more likely to give in to demands for increased spending and more prone to overrunning the limits set by the budget law than the prime minister or the finance minister. Two conflicting forces become important: the degree to which the budget law binds government's actions during the fiscal year, and the degree of flexibility to respond to unforeseen events. How binding the budget law is for government depends on the possibility to propose supplementary budgets during the fiscal year, on the relative importance of open-ended appropriations in the budget, such as social security or unemployment compensation commitments, and on the power of the finance minister to impose spending limits on ministries which exceed their budget norms. The degree of flexibility in the execution of the budget depends on the possibility to transfer expenditures between budget titles, the existence of a budget reserve, and the possibility to carry unused funds forward.

The Long-term Constraint Hypothesis and the Structural Hypothesis

Our model predicts that the structure of interests among spending ministers and members of parliament, patterns of decision making and voting conducive to universalism and reciprocity, and a large degree of flexibility in the execution of the budget all generate a bias for outcomes with large expenditures, high taxes and large deficits. Conversely, institutional arrangements limiting these forces should be conducive to greater fiscal discipline. We pursue this general proposition in two versions. The first version borrows an insight from the literature on time consistency of policy making.[14] We conjecture that policy makers are more inclined to adopt fiscal discipline when they consider the general, long-run trends and consequences of their policies, than when they are engaged in bargaining over details of the budget or in the budget execution in their daily actions. Policy makers who are able to agree on and announce a long-run program of fiscal stability will be tempted to deviate from that program once its implementation is under way, because such deviations serve short-run political interests. This suggests that strong institutions enforcing long-run orientation of fiscal policies are conducive to fiscal stability. This is our

LONG-TERM CONSTRAINT HYPOTHESIS: The more budgetary decisions are tied to a multi-period fiscal program, the greater the degree of fiscal stability achieved.

The second hypothesis focuses on the structure of negotiations and decision making procedures during the budgeting process and the execution of the budget law. We call it the

STRUCTURAL HYPOTHESIS: Budgeting procedures lead to greater fiscal discipline if they give a strong prerogative to the prime minister or the finance minister, if they limit universalism, reciprocity, and parliamentary amendments, and facilitate strict execution of the budget law.

In the next section, we develop empirical tests of these hypotheses using data for the European Community.

4. Budgeting Procedures in the EC: A Characterization

The data for the following characterization of the national budgeting procedures in the EC are based on an assessment of information on national procedures provided by the European Commission.[15] This information was available for all member governments, although in varying degrees of detail. No indication of the ranks of the experts within their ministries was made. The advantage of this data base over the alternative of studying each country's relevant legal code is that the information reflect current practices, not simply legal norms. This is particularly important for a country like the U.K., where many of the procedures depend on a common understanding of the actors rather than codified law (Wildavsky, 1975). Of course, this advantage is achieved at the expense of subjectivity in the assessment. Our data base does not generally indicate changes in the national procedures in the past.

Tables A1 – A8 summarize the assessments.[16] Table A1 begins with a general characterization of the levels of government in each country. Levels of government vary between two and four. Social security systems are treated as a separate entity within the general government in most countries. The third column of this table characterizes the budgetary status of lower-level governments. Only Denmark and France have regional governments subject to a binding balanced-budget constraint; in Belgium, Luxembourg, and Greece such constraints exist but are not considered to be binding. Lower-level governments in Germany, the Netherlands and the U.K. are subject to a 'golden rule' . In four countries, Belgium, Denmark, Greece, and Italy, regional governments are required to obtain authorization for borrowing from the

general government. In four countries, Ireland, Luxembourg, Portugal, and Spain, lower-level governments are autonomous in their budget plans, in all other countries this autonomy is limited, or lower-level governments can be placed under the surveillance of higher-level governments. The final column shows that the central government's budget is drafted, in most member states, by a single ministry, the exceptions being Denmark, Greece, Italy, and Portugal.

Table A2 reviews the existence and strength of multi-annual budget plans. Belgium, France, Greece, Luxembourg, Spain, and Portugal do not specify any multi-annual budget targets at all. However, with the exception of Belgium, these countries do use some form of multi-annual projections as intertemporal guidelines of their budget plans. Germany, Ireland, Italy, and the Netherlands use the overall size of the budget as a multi-period target. The commitment to these targets is political, i.e., it is not binding, but expresses political preferences and the willingness to make significant efforts to come close to these targets. Only in the Netherlands is the multi-annual target part of the coalition agreement of the government. Denmark and the U.K. have more specific multi-annual targets, such as total government revenue or expenditures. In Denmark, these targets are only indicative, i.e., they carry less weight than a political commitment. The same is true for revenue and public sector borrowing targets in the U.K., there, however, the spending target is a political commitment.

Table A3 characterizes the rules for preparing the budget draft. Here, the existence of a 'general constraint' indicates that the draft begins with the statement of overall parameters such as total spending, revenues, deficits, or government debt. Belgium, Greece and Portugal operate under no effective general constraint, the Netherlands and Portugal introduced their constraints only recently. Of the remaining countries, Denmark, France,

Germany, Luxembourg, and the U.K. observe spending targets in the draft; the same countries except Luxembourg plus Ireland observe a deficit target; France, Ireland and Italy also have constraints on government debt outstanding. Government guarantees to non-government entities are generally not included in the budget; if they are, they enter as a total (France), an estimated spending amount (Italy), or a maximum (Portugal). Seven of the twelve government budgets do not include reserve funds; the French reserve fund is of very limited size. In contrast, Greece, Italy, Portugal, and the U.K. carry reserve funds on the budget. Special funds exist in all member countries, they are usually included in the budget at least to some extent or annexed to it. Finally, the budget is proposed in one comprehensive document in most countries. Exceptions are the U.K. and Ireland, where revenues and expenditures are presented in different documents, while in Italy and Greece separate documents are drafted for different policy domains.

Table A4 reviews the informativeness of the budget. It begins with an overall judgement, ranging from transparent (France, Germany, Greece and the U.K.) to 'hardly transparent' (Italy). Expenditures are generally broken down by function and administrative responsibility; Ireland, Italy, and the Netherlands being the exceptions. Revenues are presented in a breakdown by source in all countries. Only in Germany, the U.K., the Netherlands, and France (though in a separate statement) can expenditure and revenue categories be linked directly to national accounting statistics to facilitate the assessment of their macro-economic effects. Loans extended by the government are generally reported, although in some cases (Germany, Ireland and Greece) only in separate statements. Most countries use a consistent accounting base in their budget documents (either cash or transactions); only Italy and Belgium use mixed accounting bases. Table A5 considers the importance of off-budget activities by looking at the budgetary treatment of special funds at

the government. Greece, Italy, and, until recently, Portugal and Belgium appear to use special funds and off-budget activities extensively. In all other countries, off-budget operations are very limited and special funds are either included in the budget, or reported as part of it.

Table A6 characterizes the voting procedures within government and the legislature as well as the scope of actions the latter has available. An 'agenda', i.e. initial budget guidelines, is set either by the prime minister or the finance (or treasury) minister (Belgium, France, Germany, Greece, Italy) or by the entire cabinet. The agenda may specify overall limits on the budget size (Belgium, France, Germany, Spain, U.K.), limits on spending or deficits (Denmark, Greece, Ireland), or determine specific budget targets together with one of the former. Subsequent negotiations are bilateral between the spending ministries and the finance ministry in Denmark, France, Germany, the Netherlands, Portugal, and the U.K., multilateral in Italy and involve the entire cabinet in Belgium, Greece, Ireland, and Spain.

Parliaments generally do not have the power to make budget proposals. The only exceptions are Germany and Luxembourg, even there, this possibility is of no practical importance. Amendments are subject to various restrictions. Unlimited amendments are possible in Belgium, Denmark, Germany, Greece, the Netherlands and Portugal. In Denmark and Spain amendments must be offsetting in the sense that proposals to increase expenditures in one budget title must be accompanied by proposals to reduce expenditure in other titles, or that a proposed tax reduction must be matched with an increase in another tax. The French rule is even stricter, prohibiting proposals to raise expenditures in one title and to reduce expenditures under another title. Only in Greece, Italy, and Spain amendments are not perceived to be a potential cause for the government to fall.

Parliaments in Belgium, Luxembourg and Spain vote on expenditures and

taxes simultaneously. In France, existing entitlements are voted upon in a first, general vote, the subsequent discussion on new authorizations proceeds chapter by chapter. In most EC countries, the parliamentary debate ends with a final, global vote on the budget. Only in France and the U.K. such a vote is taken before the parliamentary debate begins. In the Netherlands, a general discussion on the revenue and expenditure sides of the budget opens the parliamentary process, but no vote is taken. Most parliaments are subject to explicit time limits by which the budget must have been passed. Exceptions are only Ireland, the Netherlands, and Spain. Provisional budgets are implemented if the time limit is not met. In most cases, the provisional budget is a prolongation of the previous budget on a monthly or four-months basis.

Table A7 reports the budget monitoring rules during the execution process. Supervision is generally the task of the finance ministry; only in Denmark and Germany are the spending ministers responsible for monitoring their budgets. The French case is an intermediate one, where the finance ministry places supervisors in the spending ministries. Parliaments are generally informed about the execution on a monthly or quarterly basis, but have no further role in the process. In all countries except Belgium, the final closure of the budget occurs during the year following the execution.

Table A8 summarizes the provisions governing the execution of the budget law and, in particular, the degree of flexibility governments have at that stage to react to unforeseen events or deviate from earlier plans. Finance ministers in France, Germany, Greece and Luxembourg can block expenditures if budget overruns are foreseen. In these countries and Denmark, Portugal and the U.K. spending ministries are subject to cash limits during the year, imposing constraints on the timing of expenditures. Only in Belgium, France and Germany, spending ministers generally have to obtain authorization for actual disbursements; in the Netherlands and Portugal, this may be the case

occasionally.

There are various degrees of limitations to transfering expenditures between chapters of the budget during the execution. Transfers often require authorization by the finance minister or the parliament. The German and the Greek finance minister, and the Dutch government with some limitations, may authorize larger budget changes; in all other countries, a new budget law is required and must be passed under the same rules as the original one. In Belgium and Italy, the submission of supplementary budgets during the fiscal year is a standard practice (in March or in June and before October, respectively). Carrying-over unused spending authorizations to the next fiscal year is generally allowed in Italy, impossible in Greece and Ireland, and subject to limitations in the other countries.

Construction of the Long-term Constraint and the Structural Indexes

To test our hypotheses about the effect of institutional arrangements on fiscal outcomes, we need numerical representations of the institutional characteristics of the 12 countries. Such representations can be derived by constructing indexes ranking the budgeting procedures according to the relevant institutional properties. For this purpose, we select those characteristics from tables A1 - A8, which generate the largest differences between institutional arrangements. Considering the remaining ones would not add more discriminating information to our indexes, but simply increase the index value for all countries. We group these characteristics under five larger items: the structure of negotiations within government, the structure of the parliamentary process, the informativeness of the budget draft, the flexibility of the budget execution, and the longterm planning constraint. For each characteristic, we use numbers ranging from zero to four to describe its quality, with a low number indicating a quality conducive to a small degree of

fiscal discipline. This assures that each characteristic will contribute equally to the overall indexes.[17] Where the available information was not explicit about the relevant sub-item for a country, we assign a number equal to the average of the available numbers for the other characteristics of the same item. See the appendix for more details.

Next, we construct two sets of indexes. The structural indexes, SI1 - SI3 pertain to the structural hypothesis formulated above. A large structural index SI1 signals the following properties of a country's budgeting procedure: A strong position of the prime minister or finance minister in government and government negotiations evolving under a firm general constraint on the size of the budget; a parliamentary process with strong limits on amendments, votes proceeding item-by-item on expenditures and a global vote on the total size of the budget preceding the parliamentary debate; a large degree of transparency of the budget; and an execution process with limited flexibility and a strong position of the finance minister vis-a-vis the spending ministers. Our structural hypothesis says that countries with a large structural index should be expected to exhibit a relatively large degree of fiscal discipline.

Computing the index SI1 by summing up the sub-indexes for the individual characteristics presumes that these characteristics are substitutes for each other in achieving the same degree of fiscal discipline. To see how important this substitutability assumption is, we compute two more structural indexes by leaving out components from the overall index SI1. Specifically, index SI2 drops the informativeness characteristics. Index SI3 drops these and the flexibility characteristics of the budget execution. Thus, the finding that SI1 is strongly related to fiscal discipline while SI2 is not would indicate that the informativeness aspect is very important relative to the other aspects. If SI1 and SI2 relate equally to fiscal discipline, the informativeness aspect would be less important than the remaining

Fig. 10: Structural Indexes

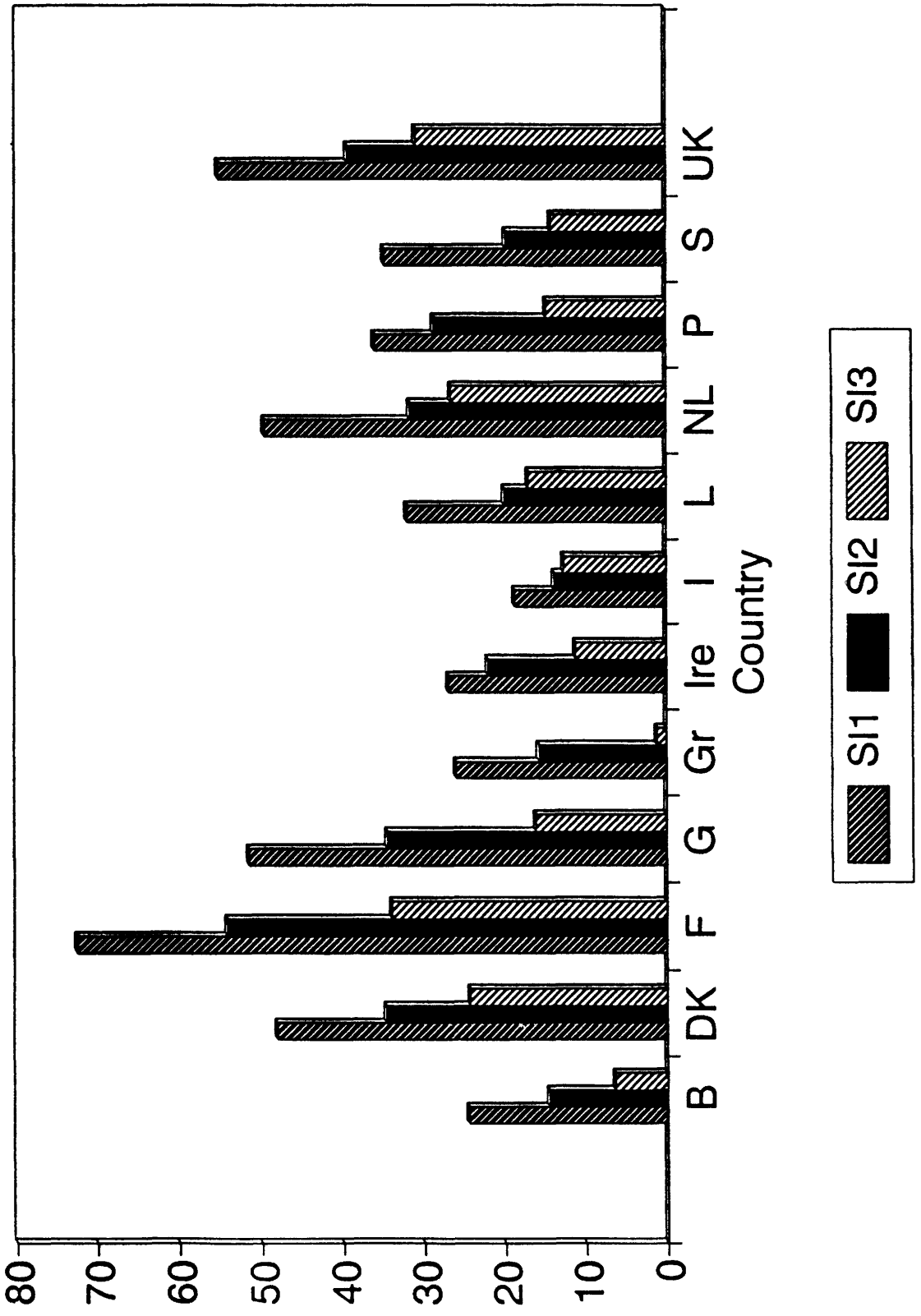
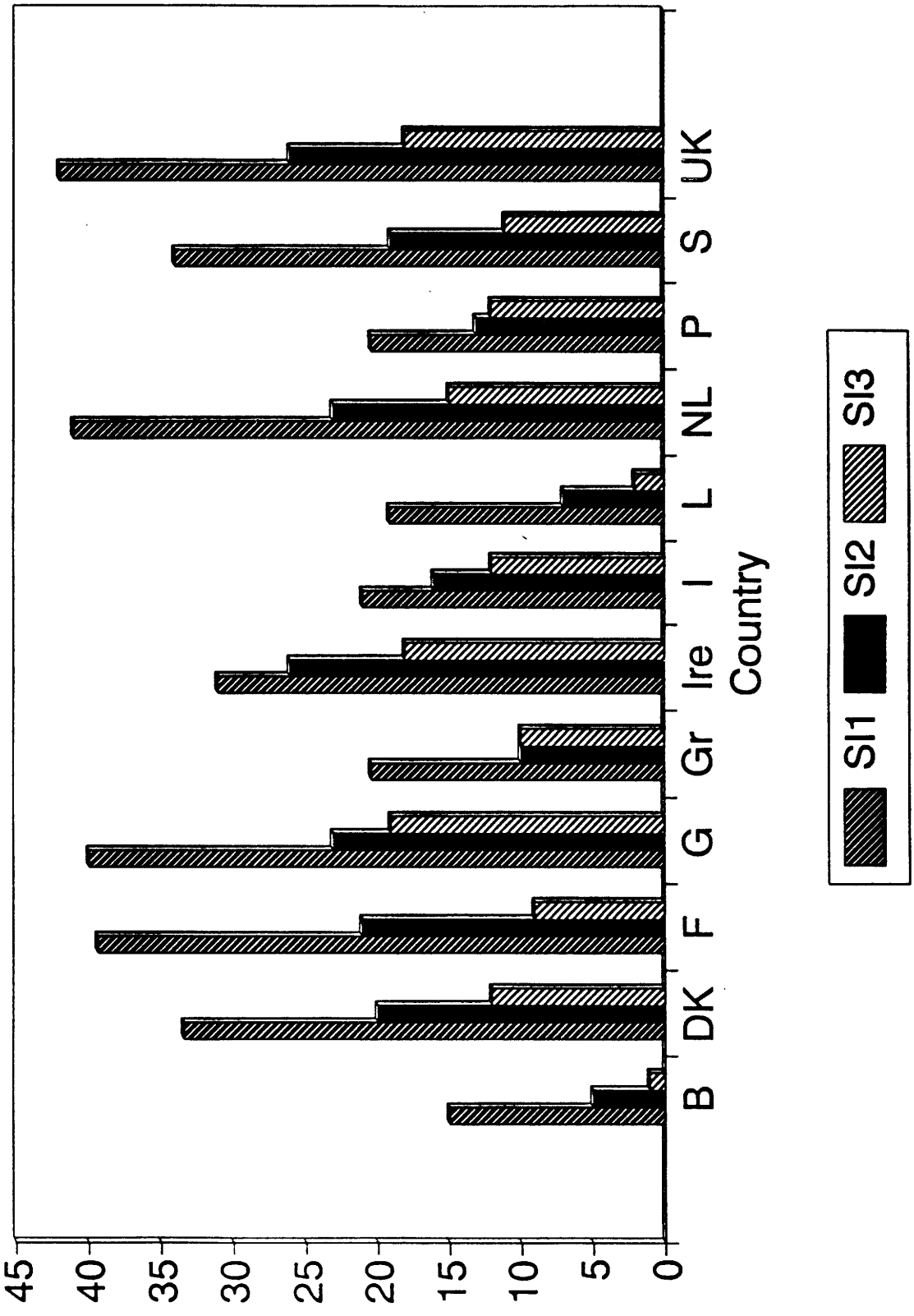


Fig. 11: Indexes of Longterm Constraint



characteristics.

To test the importance of the long-term constraint, we construct the indexes CON1 - CON3 in a similar matter. We conjecture that, apart from the existence of a multi-annual fiscal program, a high degree of informativeness of the budget facilitating its monitoring, limited amendment power of parliament and limited flexibility in the budget execution are important to make the long-term constraint effective. Thus, a large value of CON1 indicates the existence of a multi-annual fiscal target which is seen as a strong political commitment and is embedded in a consistent economic forecasting framework; a large degree of transparency of the budget; limited amendment power of parliament and limited flexibility of the budget execution. A large value of the index should signal a relatively high degree of fiscal discipline. As before, we construct alternative indexes to assess the implied substitutability assumptions. CON2 leaves out the transparency characteristics, while CON3 leaves out transparency and amendment limits. Graphical representations of all six indexes are shown in figures 10 and 11.

5. Budgeting Procedures and Fiscal Performance: Empirical Tests

We now turn to testing our two main hypotheses using nonparametric tests and regression analysis. While linear regression analysis is more familiar and easier to interpret, nonparametric tests have the advantage of not requiring the explicit specification of a functional form of the relationship between fiscal outcomes and our indexes characterizing budgeting procedures, which is necessarily largely arbitrary. Furthermore, the nonparametric tests have more power in the small sample size we are confronted with.

Table 7 presents the Spearman rank correlation coefficients between our indexes and gross debt ratios, net lending ratios and primary lending ratios for the first and the second half of the 1980s. Rankings for the debt and net

lending ratios assign high ranks to relatively small debt ratios and small deficits; ranks for the indexes are high for relatively large indexes. Table 7 shows that there are strong positive rank correlations between the structural indexes and net lending ratios throughout the 1980s. The rank correlations between the structural indexes and the primary net lending ratio are strongly positive in the first half of the 1980s; they maintain the anticipated negative sign in the later 1980s, but are not large enough to be significant. The rank correlations between the structural indexes and the gross debt ratio have the anticipated positive sign in both subsamples, but they are significant only in the second one. Over all, these results indicate that countries ranking high on the structural index – countries which, under the structural hypothesis should exhibit relatively strong fiscal discipline – rank high in debt ratios and net lending ratios. This is a first empirical support for our structural hypothesis.

Table 7 does not, however, support the long-term constraint hypothesis. No rank correlation between the longterm constraint indexes and the debt and net lending ratios are significant; some even have the wrong sign.

Table 8 presents the results of two nonparametric tests for the structural index. To perform these tests, we divided our sample into the group of four countries with the largest values of the structural index, another group of four countries with the four smallest values, and the group of the remaining countries. The Null-hypothesis for these tests is that the distribution of debt and net lending ratios is the same in all three groups, hence the same as in the combined group, indicating that classification according to the indexes does not matter. To alleviate the degrees-of-freedom problem, we perform these tests not only for the two subsamples of the 1980s, but also for a combined sample, assuming that the effect of the budgeting procedures is the same in both subsamples. Thus, the tests under the column

'81–90' use 24 observations of the debt and net lending ratios, two for each country.

Table 7: Rank Correlation Coefficients

	Gross Debt/GDP		Net Lending/GDP		Net Lending Excl. Interest/GDP	
	period		period		period	
	81–85	86–90	81–85	86–90	81–85	86–90
Structural Hypothesis						
SI1	.42	.60**	.68**	.61**	.57**	.15
SI2	.26	.50*	.56*	.58**	.63**	.32
SI3	.37	.60**	.67**	.71***	.71***	.26
Long-term Constraint Hypothesis						
CON1	.15	.38	.39	.37	.31	-.19
CON2	-.11	06	11	24	25	-.01
CON3	-.26	-.10	-.03	.12	.12	-.02

Note: Table entries are Spearman rank correlation coefficients between the structural indeces and the fiscal performance variables and the longterm constraint index and the fiscal performance variables, respectively. *, **, and *** indicate that the correlation coefficient is significantly different from zero at the ten, five, and one percent significance level.

Table 8 strengthens the evidence shown in table 7. We find that the structural index has a significant impact on the debt ratio, the net lending ratio, and the ratio of net lending excluding interest payments to GDP. As in table 7, the results are less strong when the two subsamples are considered separately for the debt ratio and the ratio of net lending excluding interest payments, however, in the combined sample, the tests are strongly significant for both. The implied relationship – not visible in the table – is as anticipated under the structural hypothesis: Countries with high index values have debt ratios (net lending ratios) significantly more concentrated around

Table 8: Hypothesis Tests for Structural Index

	Gross Debt/GDP			Net Lending/GDP			Net Lending Excl. Interest/GDP		
	period			period			period		
	81–85	86–90	81–90	81–85	86–90	81–90	81–85	86–90	81–90
Kruskal – Wallis Test									
SI1	.12	.02	.00	.03	.02	.00	.12	.53	.01
SI2	.74	.17	.16	.15	.05	.01	.05	.26	.00
SI3	.06	.02	.00	.03	.02	.00	.09	.70	.01
van der Waerden Test									
SI1	.11	.03	.00	.03	.03	.00	.12	.45	.01
SI2	.69	.20	.17	.20	.06	.01	.06	.24	.00
SI3	.06	.02	.00	.03	.03	.00	.10	.60	.09

Note: Both tests are Chi-square distributed under the Null-hypothesis of no effect from bargaining and voting structure. Table entries are the marginal probabilities of a larger than estimated test statistic under the Null.

Table 9: Hypothesis Tests for Long-Term Planning Constraint

	Gross Debt/GDP			Net Lending/GDP			Net Lending Excl. Interest/GDP		
	period			period			period		
	81–85	86–90	81–90	81–85	86–90	81–90	81–85	86–90	81–90
Kruskal – Wallis Test									
con1	.47	.39	.20	.20	.47	.11	.40	.87	.15
con2	.79	.78	.72	.94	.69	.69	.67	.78	.43
con3	.66	.44	.25	.16	.35	.04	.11	.46	.01
van der Waerden Test									
con1	.52	.44	.26	.21	.57	.19	.50	.94	.26
con2	.80	.81	.72	.99	.75	.83	.73	.90	.54
con3	.68	.49	.28	.15	.35	.04	.13	.49	.01

Note: Both tests are Chi-square distributed under the Null-hypothesis of no effect from longterm planning contraint. Table entries are the marginal probabilities of a larger than estimated test statistic under the Null.

lower values (around zero) than countries with high low index values. The results for the gross debt ratio, where SI1 and SI3 are significant, while SI2 is not, suggest that the characteristics pertaining to the bargaining and voting structures in government and parliament and the flexibility of execution are more important to determine debt ratios than the informativeness of the budget. In contrast, the table indicates that all three indexes are important for the net lending ratios.

Table 9 presents the corresponding test results for the indexes of long-term constraint. Here, we find only weak evidence that the constraint is effective: Only for the net lending ratios and the index CON3, which comprises the characteristics of the longterm planning constraint and the flexibility of execution, and only in the combined sample do the tests indicate a significant role of the longterm constraint in shaping fiscal outcomes.

Table 10 presents the results of estimating the linear regression equation:

$$y_i = a_0 + a_i x_i + u_i, \tag{4}$$

where y_i is country i's debt ratio, net lending ratio, or primary net lending ratio, x_i is country i's structural index $SI1_i$ or longterm constrain index $CON1_i$, and u_i is a regression error. Table 10 presents the results of regressions for the combined subsamples. Additional regressions testing for differences in the coefficients between these two subsamples indicated no parameter change and are not reported. The results for all three fiscal variables and the structural index corroborate our earlier findings. The structural index has a significant positive impact on the net lending ratios and a significantly negative impact on the debt ratio. These results can be interpreted as follows: Implementing a structural reform of the budgetary process in a country which increases the structural index by 25 points

(approximately the difference between Belgium and the Netherlands, would result, in the long run, in an increase in the net lending ratio by about 4.75

Table 10: Regression Estimates

Dependent Variable	Const. (t-ratio)	SI1 (t-ratio)	CON1 (t-ratio)	R^2	RMSE	F
			Net Lending/GDP			
NL_i	-12.72	0.19		0.34	3.94	0.003
	(-5.64**)	(3.39**)				
NL_i	-11.88		0.21	0.19	4.38	0.034
	(-4.06**)		(2.26)			
NL_i	-12.26	0.20	-0.05	0.35	2.52	0.04
	(-4.56**)	(2.25*)	(-0.33)			
			Net Lending Excl. Interest / GDP			
NLX_i	-5.33	0.10		0.33	2.28	0.004
	(-4.09**)	(3.28**)				
NLX_i	-4.81		0.12	0.18	2.52	0.04
	(-2.86**)		(2.17)			
NLX_i	-5.04	0.12	-0.03	0.33	2.32	0.01
	(-3.24**)	(2.22*)	(-0.37)			
			Gross Debt / GDP			
B_i	98.97	-0.93		0.24	26.6	0.02
	(6.50**)	(-2.60**)				
B_i	89.86		-0.94	0.09	28.94	0.14
	(4.65**)		(1.51)			
B_i	92.27	-1.28	0.69	0.25	26.90	0.04
	(5.12**)	(2.11*)	(0.72)			

Note: * and ** indicate significance of the t-ratio at the five and one-percent levels, respectively. F is the marginal probability of a larger estimate of the F-ratio under the Null-hypothesis that the model has no explanatory power. RMSE is the root mean squared error.

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percent, and the primary net lending ratio by about 2.5 percent, while reducing the debt ratio by about 23 percent. Additional regressions for the

structural indexes SI2 and SI3 yield similar results and are not reported. They did not indicate major differences in the importance of the subindexes.

The regression results for the longterm constraint index are very different. Here, the only significant coefficient is found in the model for the net lending ratio. The index does not, in contrast, explain variation in the gross debt ratio nor the ratio of net lending excluding interest payments. Furthermore, the third regression for the net lending ratio, which combines both the structural index and the longterm constraint index, suggests that the structural index has more explanatory power, since the longterm constraint index is not significant in this regression.

6. Conclusions

This paper investigates the role of budgeting procedures in determining a country's fiscal performance. Recent theoretical literature has developed models showing that the institutional framework in which budgeting takes places can have important consequences for the degree of fiscal discipline achieved by a country. We analyze this basic proposition in two versions, one focusing on structural characteristics of the budgeting procedures and the other focusing on the importance of a longterm fiscal constraint. The empirical analysis uses data for the European Community countries during the 1980s and characterizations of their budgeting procedures focusing on current practices rather than simply on legal norms.

Our main result is that we find strong empirical support for our structural hypothesis. Specifically, our results suggest that a budgeting process that gives the prime or finance (or treasury) minister a position of strategic dominance over the spending ministers, that limits the amendment power of parliament, and that leaves little room for changes in the budget during the execution process is strongly conducive to fiscal discipline, i.e.,

relatively small deficits and public debt. This result can be interpreted as pointing to the importance of a commitment mechanism in the budgeting process. Spending ministers are exposed to political pressures from interest groups and, since taxes fall on the general public while expenditures benefit particular groups, are biased in their decisions towards large expenditures and large deficits. The prime minister and the finance or treasury minister, in contrast, do not depend on particular interest groups to the same extent; their decisions are more strongly guided by general economic considerations. A strong position of the prime minister or the finance (or treasury) minister and limited parliamentary power enable the government to commit fiscal strategies limiting expenditures and deficits and to defend these strategies against the political pressures for more profligate policies which spending ministers and members of parliament are exposed to in the day-to-day political process.

In contrast, the role of long-term fiscal constraints in achieving fiscal discipline, while in most cases positive, is not found to be significant. While we do not conclude from this that long-term constraints lack importance, our conclusion is that a long-term constraint will only be effective if governments have an effective commitment mechanism in the budgetary process. That is, a long-term constraint may improve the fiscal performance of a country with budgeting procedures which rank high on our structural index, but the long-term constraint alone is insufficient to overcome the problems of fiscal discipline for a country that ranks low on the structural index.

Our results suggest that institutional reform of the budgeting process is a promising avenue to achieve a larger degree of fiscal discipline. Of course, this is not to say that institutional reform can discipline political actors who are largely unwilling to accept less spending, higher taxes, or

smaller deficits. Our view is, however, that appropriate institutional reforms can help governments and parliaments to materialize a newly reached consensus for greater fiscal discipline. Such reforms may be required in some countries to achieve the fiscal targets spelled out recently in the Maastricht Accord, which can be regarded as a special form of longterm constraints on fiscal policies. What is more, institutional reforms meeting the requirements and particularities of individual member countries may be a promising route to maintain fiscal stability in the third stage of European Monetary Union as a complement to the imposition of uniform fiscal criteria under the current institutional arrangements.

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NOTES

1. For review of this discussion see von Hagen and Fratianni (1991), Fratianni and von Hagen (1992).

2. Art. 3 of the Protocol on the Excessive Deficit Procedure requires that 'the Member States shall ensure that national procedures in the budgetary area enable them to meet their obligatins in this area deriving from this Treaty'.

3. Net government lending corresponds to the negative of the general government deficit.

4. Net lending excluding interest corresponds to the negative of the 'primary government deficit'.

5. More specifically, we can calculate the transition probabilities from 1971 to 1990 as follows:

position in 1971	position in 1990			
	high	middle	low	total
high	3	1	1	5
low	0	3	4	7
total	3	4	5	12

Thus, the probability of being in the high-debt group in 1990 for a country being in the high-debt group in 1971 is 60 percent, the probability of being a low-debt country in 1990 for a low-debt country in 1971 is 4/7.

6. Note that the Greek and Portuguese data start only in the 1980s. These countries could therefore not be included in the estimation of the common factors without severe losses of degrees of freedom.

7. A variable x is said to Granger-cause a variable y, if including past values of x together with past values of y in a forecast model for y reduces the variance of the prediction error compared to a forecast model that uses past values of y alone.

8. In addition, there is some weak evidence for Granger-causality for the Netherlands, Ireland, and Portugal.

9. see Larkey at al. (1981). Among these are the 'Displacement Effect Hypothesis' claiming that the relative expansion of government expenditures is driven by the development of government revenues, which increase relative to GNP in times of social turmoil and are rigid downwards, afterwards, and hypotheses about the uncontrollability or stickiness of government expenditures following severe macro economic shocks.

10. Here and subsequently we use the term government in the narrow sense of the cabinet of ministers.

11. Subsequently, we use the term finance minister exclusively to describe this role.

12. Tax-payers are said to be Ricardian if they do not regard public debt as part of their net wealth and, hence, reduce current consumption one-for-one with an increase in government deficits. Ricardian tax-payers would carry the full tax burden of a given amount of government expenditure regardless of whether it is tax-financed currently or deficit-financed and the taxes (plus interest) are collected later. see e.g. Barro (1974).

13. To the extent that a large budget conveys a powerful government, they may have a preference for enlarging the budget size. We assume that this incentive is weaker than their concern for general interests.

14. see Kydland and Prescott (1977) for a classical exposition of the time consistency problem in economic policy. In the monetary policy context, the time consistency problem - generally expressed as the problem of central bank credibility - has been shown to be an important source of persistent inflation and is an important justification for central bank independence. see Neumann (1991) or Fratianni and von Hagen (1992).

15. This data was partly obtained from Member States concerning their situation in 1991.

16. The following tables compress and summarize the assessment of information on national budgeting procedures and are prepared by the present author. They do not reflect the judgement nor the interpretation of the European Commission.

17. Note that this normalization implies that some index values are not integers.

Appendix: Budgeting Rules in the European Community Countries

Characterizations and Index Construction

Abbreviations:

B: public debt

D: Deficit

Depts: Departments

G: Government spending

lim: limited

MF: Ministry of Finance (or Ministry of Treasury where appropriate)

Parl: Parliament

T: Tax revenues

Y: nominal GDP

ΔB: net borrowing

"Golden rule" refers to the provision that the budget defict must not exceed investment or capital expenditure.

Sources: Assessment of information on national procedures obtained from the European Commission in 1991, OECD (1987), and European Commission (1983).

Table A1: Structure of General Government

Country	Levels of Government	Budgetary Status of Regional Authorities			Ministries involved in draft of overall balance
		Balanced Budget Required[1]	Borrowing Authorized[2]	Planning Autonomy[3]	
Belgium	3 + Social Security	y	y	s	Finance, Budget
Denmark	3 + Social Security	b	y	s	Finance, Economic Affairs, Revenues
France	4 + Social Security	b		lim	Finance
Germany	3 + Social Security	g[4]	n	s	Finance
Greece	2 + Public Entities	y	y	n	Finance, National Economy for investment
Ireland	2	n	n	y	Finance
Italy	3	n	y	lim	Finance, Treasury, Budget
Luxembg.	2 + Social Security	y	n	y	Budget
Netherlands	3 + Social Security	g	n	s	Finance
Portugal	2 + Social Security	n	n	y	Budget, Fiscal Affairs, Treasury
Spain	4 + Autonomous Regions	n	n	y	Finance
United Kingdom	2	g	n	lim	Treasury

[1] n: no requirement; y: requirement exists but is not considered binding; b: requirement is binding; g: 'golden rule' requirement exists, i.e., deficits must not exceed investment expenditures.

[2] y: Authorization from higher level government is required; n: no requirement.

[3] y: lower-level governments are autonomous; s: they may be placed under surveillance of higher-level government; lim: they have limited autonomy; n: they have no autonomy.

[4] 'Golden Rule' applies, i.e., deficits must not exceed investment expenditures.

Table A2: Multi-Annual Budget Plans or Targets

Country	Target	Nature	Period	Degree of Commitment
Belgium	none			
Denmark	G, T	Estimates in current prices reflect long-term policies as framework for planning. Targets change with political priorities, demographic changes.	t+3	indicative, base for spending limits
France	none	Three-year projections of main items serves to clarify budget decisions. Based on macro-economic scenarios revised several times a year.	t+2	unpublished, for internal use only
Germany	total budget size	Framework for orientation of all interested parties. Annually adapted to current economic situation on the basis of macroeconomic projection.	t+4	political
Greece	none	Starting in 1990, budget is seen as part of 5-year economic plan approved by Parliament. For 91 - 93, budget is part of 3-year stabilization program.		indicative, though in context with EC loan
Ireland	total budget size	Estimates of fiscal developments assuming no changes in policies. Baseline for decisions. Projections are based on macroeconomic forecasts and 'known' factors. Spending departments must provide annual forecast of resource requirements with demands for funds.	t+4	unpublished, but political
Italy	total budget size	2 versions: one on a no-change-in-policies basis and one based on revisions of medium-term fiscal program. The latter contains macroeconomic projections and deficit targets.	t+3	political
Luxembg.	none	multi-annual plan in preparation		
Netherlands	total budget size	Based on macroeconomic forecast updated bi-annually. Interpolations are made in between updates in light of new commitments and policies.	t-1 to t+4	strong political, part of coalition agreement
Spain	none	ad hoc macroeconomic and budgetary scenarios.	5 years	unpublished internal orientation
Portugal	none	Budget includes indicative projections for programs and projects. For 1991-95, there is a reference framework for medium-term fiscal stabilization and adjustment to the EC average.	t+4	indicative, currently political for D/Y
U.K.	G, T, ΔB	Medium term fiscal policy objectives for the year ahead are based on macroeconomic forecast. Following years are based on consistent assumptions and Government's inflation objective.	t+4	indicative for budget balance, political for G

Table A3: Rules for Preparation of Budget Draft

Country	general constraint	government guarantees included	reserve funds included	special funds included	budget in one document
Belgium	double norm on expenditure and deficit (avoidable)	only borrowing of parastatal and government funds	none	since recently most included	recently yes
Denmark	G, D	no, only survey of existing	none	most included	yes
France	D/Y, G, B/Y	as total without specified limits	yes, but very limited	included	yes
Germany	Golden rule,targets from multi-annual plan, sometimes more specific	guarantees to sectors outside general government not included	none	no, but some Sondervermögen annexed to budget	yes
Greece	D/Y, but not observed	not all	yes, at Finance Ministry	annexed	no[1]
Ireland	B/Y, D/Y	no	no	several	no
Italy	B/Y, D/Y	yes, as estimated spending	general and specific	at Interior and Defense Min.	no[2]
Luxembg.	G/Y		no[3]		yes
Netherlands	recently D/Y, B/Y	guarantees to sectors outside general government not included	none	included	yes
Portugal	recently	only annual maximum	several	no[4]	yes
Spain	none		none	most included	yes
U.K.	G/Y, D from multi-annual plan	no	yes	yes	no

[1] Public investment budget is prepared by the Minister of the Economy alone, Finance Minister has no say in it.

[2] Budget law reflects current legislature and cannot introduce new taxes nor expenditure. New legislation affecting the budget is introduced in the Finance Bill.

[3] There exists a rederve fund, which, however, is not available for contingences. The reserve fund receives annual budget surpluses and is used to finance investment in the following year.

[4] Special and autonomous funds are reported in the budget, but not voted on by Parliament.

Table A4: Transparency of the Budget

Country	Overall assessment	Exp. Funct.	Exp. Admin.	Rev. Source	Nat. Acc.	Capital	Loans	Acct. Base
Belgium	not always transparent	y	y	y	n[1]	y	y	m
Denmark	incomplete, but transparent	y	y	y	p	y	y	t
France	transparent	y	y	y	o	y		t
Germany	fully transparent	y	y	y	y	y	o	
Greece	transparent	y	y	y	g	y	o	
Ireland	incomplete, not fully transparent	n	y	y	n	y	o	c
Italy	hardly transparent	n[2]	n[3]	y	n	y	y	m
Luxembg.	not fully transparent	y	y	y	p			
Nether-lands	incomplete, not fully transparent	y	n	y	y	y	y	c
Portugal	not fully transparent	y	y	y	p	y	n[4]	c
Spain	partially transparent	y	y					c
U.K.	transparent	y	y	y	y	y	y	c

Notes: Exp. Funct.: breakdown of expenditures by functions; Exp. Admin. : breakdown of expenditures by administrative responsibility; Rev. Source: Breakdown of revenues by source; National Acc.: link to national accounts established; Capital: capital expenditures identified; Loans: Loans of government reported; Acct. Base: Accounting base; c: cash basis; g: National account codes provided; m: mixed accounting base; o: provided separately p: not provided, but possible; s: t: transactions basis

[1] National account classifications are published with one-year delay; publication is planned to be suppressed.

[2] The Appropriation Bill contains a breakdown according to administrative function, however, this classification often does not identify the department acually in charge.

[3] A breakdown is provided into 12 functions, leaving, however, a large amount of unallocated items.

[4] Some information is provided.

Table A5: Treatment of Special Funds

Country	Procedures
Belgium	all but a few of approx. 100 special funds are now in the budget. Off-budget operations exist but are not published
Denmark	There are 17 special funds whose assets are used for earmarked purposes. Their expenditures are included under the government spending limit.
France	special funds for temporary operations are included in the budget.
Germany	Sondervermögen des Bundes are included with their overall revenue or expenditure implications.
Greece	Budgets of independent government bodies are annexed to budget and voted by Parliament. They belong to specialzed development or research oriented bodies and services relieved from rigidities of Public Accounting and subject to special financial regulations. If for any reason administration of revenue or expenditure is impossible on the basis of the budget, it can be made on the basis of a specific law for each time.
Ireland	Occasionally established funds to enable State to administer monies on behalf of private citizens or bodies (for example, if most funds come from sources other than general fund). plus: Social Insurance Fund, Post Office Bank, Sinking Fund and Lotterie Fund
Italy	Special funds exist for pending legislation with global expenditure estimates. Off-budget funds exist for certain ministries.
Luxembg.	n.a.
Netherlands	Off-budget operations exist at 0.4% of NNI. They are included in deficit data. Other special funds are included in budget.
Spain	
Portugal	Numerous off-budget operations existed until 1990 and were associated with fiscal indiscipline. There is a large number of autonomous funds and departments whose budgets are presented separately to Parliament, or whose budgets are only subject to government authorization.
U.K.	Little use of special funds, no use of off-budget operations.

Table A6: Voting Procedures

Country	Negotiations within Government			Parliament can		Amendments			joint vote on all G	global vote on budget	time limit	prov. if not met
	agenda set by	type	budget negotiations	prop.	amend	are ltd.	are off-setting	can cause fall of government				
Belgium	MB,MF	b	C	n	y	n	n	y	y	A	y	12s
Denmark	C	s,G	bilat.	n	y	n	y	y	n	A	y	12s
France	PM	b	bilat.	n	y	y	y	y[1]	n[2]	B	y	TE[3]
Germany	MF	b	bilat.	y	y	n	n	y	n	A	y	
Greece	MF	G	C	n	y	n	n	n	y	A	y	O
Ireland	C	D	C	n	y	y[4]	n	y	n	n	n	P
Italy	MF	b,s	multi-lat.	n	y	y	n	n	n	A[5]	y	max. 4/12
Luxembg.				y	y	y[6]	n		y	A	y	12s
Nether-lands	C	b,s	bilat.	n	y	n	p	y	n[7]	B[8]	n	4/12
Portugal	C	b,s	bilat.	n	y	n	n		n	A	y	O
Spain	C	b	C	n	y	y	y[9]	n	y	A	n	O
U.K.	MF[10]	b	bilat.	n	y	y[11]	n	y	n	B[12]	y	TE

Note: A: after general debate; b: general budget guidelines; B: before general debate; bilat: bilateral negotiations between MF and resort ministries; C: Cabinet; O: previous budget continued; PM: Prime Minister; s: specific budget targets determined; TE: temporary budget adopted.

[1] MPs may propose to reduce a receipt accompanied with an increase in another receipt, but not an increase in spending accompanied with a decrease in another spending item.

[2] Global vote on existing entitlements, vote chapter by chapter on new authorizations.

[3] By decree of government.

[4] Parliament can only amend tax provisions, while expenditure proposals can only be refused or approved.

[5] Parliament first votes on the Finance Bill which sets the overall ceiling for government borrowing. However, this ceiling being only in commitment terms, it is not a binding constraint.

[6] Legally unrestricted, but very limited in practice.

[7] Expenditures are voted by chapters, revenues separately.

[8] Before discussing the individual chapters, there is a political discussion on the global content of the budget.

[9] Unless authorized otherwise by government.

[10] MF submits proposal to be voted by C.

[11] Amendments to the Finance Bill may normally only reduce, but not increase taxes. See also fn. 11.

[12] The House of Commons first votes on the Budget resolutions which cannot be amended. The resolutions determine what goes into the Finance Bill and how that Bill might be amended. The result is that Government cannot be confronted with a budget completely different from its proposal and, provided it has a majority in the Commons, it can limit Parliament's amendments to what it deems acceptable.

Table A7: Budget Monitoring Rules

Country	Expenditure Control by	Finance Ministry records spending	Role of Parliament	Final Report Due After
Belgium	MF	monthly	informed Oct., March of t+1	up to five years
Denmark	Ministries	yes	informed quarterly	12 months
France	MF	monthly	informed monthly, debate in December	March t+1
Germany	Ministries and MF	monthly	no role[1], informed quarterly	4 months
Greece	MF	monthly	informed in November or at request	3 months
Ireland	MF	monthly	informed quarterly	12 months
Italy	M of Budget, MF	monthly	informed quarterly about D	6 months
Luxembg.	M of Budget	quarterly	no role	
Netherlands	MF	monthly	informed quarterly	9 months
Portugal	Auditors only for State sector	monthly with delay	no role, regularly informed	9 months
Spain	MF and M of Economy	monthly	quarterly	
U.K.	MF	monthly	no role, bi-annually informed	3 months

[1] Parliamentary Committee (Haushaltsausschuss) monitores execution.

Table A8: Budget Flexibility

Country	MF can block expenditure	Cash Limits on Departments	Disbursement approval[1]	Transfers between Chapters	Budget changes authorized by	Carry-over to next year
Belgium			yes	within Depts[2]	new law (March)	yes[3]
Denmark		yes		yes[4]	new law	yes[5]
France	G[6]	yes	yes	lim, by decree	new law[7]	limited
Germany	yes	yes	yes	within Depts.[8]	MF[9]	possible[10]
Greece	yes	yes		approved by MF	MF[11]	no
Ireland				within 'Votes' approved by MF	new law	no
Italy				yes	new law[12]	yes
Luxembg.	yes			possible		
Nether-lands			rarely	yes[13]	Govt.[14]	limited
Portugal		yes	often	within Depts. approv. by Parl.	new law	limited[15]
Spain				limited	new law	limited
U.K.		yes		approved by MF[16]	new law	limited[17]

[1] By authority other than executive of ressort ministries, e.g. MF or financial controller.

[2] Transfers between Departments require rare political consensus.

[3] Undifferentiated appropriations carried over by Royal Decree only; differentiated appropriations carried over automatically.

[4] Only with approval by Finance Committee of Parliament.

[5] But of little relevance in practice.

[6] Government can block expenditure by decree.

[7] In special cases, additional expenditure can be authorized by government decree which must be endorsed in the next budget law.

[8] Between departments, consent of MF is required.

[9] Upon initiative from government parties.

[10] Requires consent of Parliament.

[11] MF can seek budget amendment during the discussion of the law closing the account or authorize spending over ceiling.

[12] To be submitted on June 30 or before October 31.

[13] Cannot be used to finance new expenditure.

[14] Additional spending must be compensated within the same chapter, save fore exceptions with approval by Cabinet. In such cases, general compensation is sought or emergency spending authorized.

[15] May be authorized for investment plans and autonomous or social security funds by the Budget Law.

[16] With approval by Parliament only for transfers between 'votes'.

[17] Five percent of capital expenditures and defense expenditures.

Index Construction for the Empirical Analysis

Item 1. Structure of negotiations within government

a) general constraint:
none (0), B/Y (1), B/Y and D/Y (2), G/Y or Golden Rule (3), G/Y, D/Y (4).

b) agenda setting for budget negotiations:
MF or cabinet collects bids from spending ministers (0); MF or cabinet collects bids subject to preagreed guidelines (1), cabinet decides on budget norms first (2), MF proposes budget norms to be voted on by cabinet (3), MF or MP determines budget parameters to be observed by spending ministers (4).

c) scope of budget norms in the setting of agenda:
expenditure or deficit (0), 'specific' (1.33), 'broad' and 'specific' (2.66), 'broad' (4).

d) structure of negotiations:
all cabinet members involved together (0), multilateral (2), bilateral between spending ministers and MF (4).

	General constraint	agenda setting	scope of budget norms	structure of negotiations
Belgium	0	1	1.33	0
Denmark	4	3	1.33	4
France	4	4	4	4
Germany	3	1	4	4
Greece	0	1	0	0
Ireland	2	1	0	0
Italy	2	1	2.66	2
Luxembourg	3	-	-	-
Netherlands	1	3	2.66	4
Portugal	1	2	2.66	4
Spain	0	2	4	0
U.K.	4	3	4	4

Item 2. Structure of parliamentary process

a) amendments: unlimited (0), limited (4)

b) required to be offsetting: no (0), yes (4)

c) can cause fall of government: no (0), yes (4)

d) all expenditures passed in one vote:
yes (0), mixed (2), votes are chapter by chapter (4)

e) global vote on total budget size: final only (0), initial (4)

	amendments limited	amendments offsetting	amendments cause fall	one vote on expenditure	global vote
Belgium	0	0	4	0	0
Denmark	0	4	4	4	0
France	4	4	4	2	4
Germany	0	0	4	0	0
Greece	0	0	0	0	0
Ireland	4	0	4	0	0
Italy	4	0	0	2	0
Luxembourg	4	0	-	0	0
Netherlands	4	0	4	4	4
Portugal	0	0	-	0	1
Spain	4	0	0	0	0
U.K.	4	0	4	4	4

Item 3. Informativeness of the budget draft

a) special funds included:
no (0), some (1), most (2), yes, but annexed to budget draft (3), yes (4).

b) budget submitted in one document: no (0), recently yes (2), yes (4).

c) assessment of budget transparency by respondents:
hardly transparent (0), not fully transparent (2), fully transparent (4)

d) link to national accounts:
not provided (0), possible (1.33), provided in separate documents (2.66), direct link provided (4)

e) government loans to non-government entities included in budget draft:
no (0), reported in separate document (2), yes (4)

	special funds	one document	transparency	national accounts	government loans
Belgium	2	2	2	0	4
Denmark	2	4	2	1.33	4
France	4	4	4	2.66	-
Germany	3	4	4	4	2
Greece	3	0	4	1.33	2
Ireland	1	0	2	0	2
Italy	1	0	0	0	4
Luxembourg	-	4	2	1.33	-
Netherlands	4	4	2	4	4
Portugal	0	4	2	1.33	0
Spain	3	4	2	-	-
U.K.	4	0	4	4	4

Item 4. Flexibility of Budget Execution

a) MF can block expenditures: no (0), yes (4)

b) spending ministries subject to cash limits: no (0), yes (4)

c) disbursement approval required from MF or controller: no (0), yes (4)

d) transfers of expenditures between chapters:
unrestricted (0), limited (0.8), require consent of MF (1.6), require consent of parliament (2.4), only within departments possible (4), only within departments and with consent of MF (5).

e) changes in budget law during execution:
at discretion of government (0), by new law which is regularly submitted during fiscal year (1), at discretion of MF (2), require consent of MF and parliament (3), only by new budgetary law to be passed under the same regulations as the ordinary budget (4).

f) carry-over of unused funds to next year:
unrestricted (0), limited (1.33), limited and requires authorization by MF or parliament (2.66), not possible (4)

	MF can block	cash limits	disburse-ment approval	transfers	budget changes	carry-over
Belgium	0	0	4	3.2	4	0
Denmark	0	4	0	2.4	4	0
France	4	4	4	3.2	4	1
Germany	4	4	4	1.6	3	2
Greece	4	4	0	1.6	2	3
Ireland	0	0	0	4	4	3
Italy	0	0	0	0	1	0
Luxembourg	4	0	0	0	-	-
Netherlands	0	0	4	0	0	1
Portugal	0	4	4	0	4	2
Spain	0	0	0	0.8	4	1
U.K.	0	4	0	2.4	4	1

Item 5. Longterm Planning Constraint

a) multiannual target: none (0), G or T (2), total budget size (4)

b) planning horizon (years): two (1) three (2), four (3), five (4)

c) nature:
ad hoc forecast (1), fixed forecast (2), updated forecast, but not based on consistent macromodel (3), updated on basis of consistent macromodel (4)

d) degree of commitment:
internal orientation (1), indicative (2), weak political (3), strong political (4)

	target	horizon	nature	commitment
Belgium	0	0	0	0
Denmark	2	2	2	2
France	0	1	1	1
Germany	4	3	4	3
Greece	0	2	1	2
Ireland	4	4	1	3
Italy	4	3	1	3
Luxembourg	0	0	0	0
Netherlands	4	4	2	4
Portugal	0	3	1	2
Spain	0	4	1	1
U.K.	2	4	4	3

Definition of Indices:

1. Structural index:

SI1 = sum of row entries of itens 1. - 4.

SI2 = sum of row entries of items 1., 2. and 4.

SI3 = sum of row entries of items 1. and 2.

2. Index of longterm planning constraint:

CON1 = sum of row entries of items 5., 3., plus ammendment index plus flex

CON2 = sum of row entries of item 5. plus ammendment index plus flex

CON3 = sum of row entries of item 5 plus flex

where: amendment index is the sum of the first three row entries of item 2. and flex is the sum of the first, second, fourth and last rows of item 4.

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