The Political and Economic Determinants of Budgetary Consolidation in Europe

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Abstract

This paper explores the political and economic determinants of fiscal adjustment strategies in the European Union (EU) between 1970 and 2001.

Results confirm the hypotheses that, besides economic conditions, fragmentation of decision-making, ideology of the party in government, and closeness to elections affect fiscal policy in general and adjustment strategies in particular.

During the nineties, the ideology of the party in government has become the most powerful predictor of fiscal policies and strategies of adjustment. Evidence shows that in the new context, socialist governments prefer to use balanced budgets to finance supply-side policies of capital formation and to maintain public employment, and are reluctant to cut these expenditures even at the expense of public consumption and transfers.

Keywords: *Political Economy, European Union (EU), Fiscal Consolidation, Fiscal Adjustment*

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1.   Introduction

The 3%GDP deficit requirement to qualify for the third stage of EMU and the subsequent Stability and Growth Pact have made budget balances across Europe to converge. This, together with the process of economic globalization and the creation of the European Central Bank has served in several debates as an argument to proclaim the end of differences in economic policies in Europe, and the growing impossibility of governments to affect monetary and fiscal policies.

But convergence in budget balances toward the 3% limit does not mean convergence in the size nor in the composition and distribution of public revenues and public expenditures. Fiscal policies in general and adjustment strategies in particular can vary in three dimensions: their timing, their duration, and their composition. In a situation of strong budgetary disequilibria, governments can decide to launch a fiscal adjustment sooner or later, that lasts longer or shorter, and that is revenue-based or expenditure-based. There can be switching and mixed strategies, where governments may decide to wait before cutting politically sensitive items such as transfers and subsidies. And the macroeconomic consequences of these different types of adjustment are not equivalent.

In the last four decades, evidence of these variation in the strategies of fiscal adjustment in Europe is abundant, but in the nineties this variation has become even more relevant. While one could witness in the last decade a convergence in the timing of fiscal adjustments due to a generalized process of convergence toward the 3% boundary to comply with the Maastricht's rules before 1999, it also became evident that different countries chose different strategies (in terms of duration and composition) to achieve the common objective. Since this variation is very paradoxical in the strict framework of the Maastricht Treaty and the Stability and Growth pact, this article looks at the possible political and economic determinants that can explain it.

However, one must be careful in doing so and must take into account the following considerations. First, fiscal policy is a continuum along time where governments can implement fiscal expansions (that can lead to budget deficits), or fiscal consolidations (that can lead to budget surpluses). An strategy of fiscal adjustment can be defined as the group of measures designed and implemented by any government with the purpose of reducing the budget deficit or improving the budget surplus, that actually succeeds in approaching to each other public revenues and public expenditures as a percentage of GDP. As such, years in which a fiscal adjustment occurs are only a sub-sample of the fiscal policy implemented by any government along time. Therefore, if one is to study properly the economic and political determinants of fiscal adjustment strategies in particular, it is necessary to explore first the determinants of fiscal policy in general, in order to avoid a problem of "selection bias". Secondly, as mentioned above, whenever any government designs a strategy to consolidate is budget, it has to decide on the timing (when to launch the adjustment), on the duration of the adjustment episode, and on its composition. Since the first two dimensions of any adjustment strategy have been already studied in depth elsewhere[1], this article focuses specifically on the third dimension (the budget's composition), and it does so by answering consecutively to the two following questions:

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[1]   The factors that influence the probability of starting a fiscal adjustment in Western economies have been studied among others by Von Hagen, Hallett and Straucht (2001) and by Mulas-Granados (2003). While the determinants of the duration of fiscal adjustments have been also studied by Maroto and Mulas-Granados (2001, 2002). In those studies they found that the timing and duration of fiscal consolidations in the EU during the last forty years have been very dependent on the accumulated level of debt, the quality of the adjustment (more expenditure-based adjustments tended to last longer), the fragmentation of the cabinet, and the electoral calendar (more fragmented governments and closeness to elections were associated with shorter durations.)

-What are the political and economic determinants of the budget's composition in general, during both episodes of fiscal adjustment and episodes of fiscal expansion?

- What are the political and economic determinants that explain that during episodes of fiscal adjustment, different countries follow different strategies of adjustment in terms of budgetary composition?

Although the literature on fiscal policy has covered a wide range of issues[2]: To date the only study that has directly addressed the first question is the one by Perotti and Kantopoulus (1998). On a panel of OCDE countries from 1970-1995 they find that both cabinet's ideology and fragmentation of decision-making affect the composition of the budget, mostly with respect to transfers. Nevertheless, their article bases its conclusions on data until 1995, leaving unexplored the period of strongest fiscal consolidations in the European Union (EU) that led to EMU in 1999. And most importantly, it does not address the question of what determines the choice of a certain type of fiscal adjustment strategy, in countries attempting to balance their budgets.

Therefore, it is the purpose of this article to investigate the political and economic determinants of the strategic choice involved in the decision of the budgetary composition of any fiscal adjustment episode, with an special focus on the fiscal adjustments in the nineties in the European Union (EU).

This is done from a political economy perspective, with reference to the institutional, ideological and electoral approaches that have traditionally tackled this issue. Driven by empirical results, the article pays special attention to the role that the government's ideology has on fiscal outcomes, because if politics was already defined in the thirties as the decision over "who gets what, when, and how" (Laswell, 1936: 19), it is clear that fiscal policy and the choice of consolidation strategies are precisely so.

Once economic conditions are taken into account, results confirm the hypotheses that fragmentation of decision-making, proximity of elections and ideology affect fiscal policy.

More fragmented governments tend to spend more, to increase transfers and if forced to consolidate the budget, they prefer to follow a revenue-based adjustment strategies. For different reasons, socialist governments prefer bigger budgets in terms of the size that public revenues and expenditures represent as a share of GDP, though they cannot be necessarily associated to unbalanced budgets. They tend to increase transfers, the government wage bill and public investment. This is why during episodes of fiscal adjustment, more leftist governments also prefer revenue-based strategies. Moreover, evidence from the nineties suggest that EMU has forced socialist governments to switch their preferences on the expenditures' side. In the new context, they prefer to use revenues from direct taxes to achieve balanced budgets that allow them to finance publicly supply-side policies of capital formation and to maintain public employment. When forced to adjust they are reluctant to cut these expenditures even at the expense of public consumption and transfers.

Next section draws a general picture of fiscal outcomes in the EU during the last decades, and shows that a lot of variability in fiscal policies can be found despite of common trends. Section 3 explores the factors that explain the mentioned variation in fiscal policies and that have affected the composition of public budgets across Europe between 1960-2001. Section 4

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[2] From the works of the Italian School of Public Finance in the nineteenth century (Buchanan 1960) literature on fiscal policy is abundant. More recently, scholars have concentrated on a variety of issues related to fiscal policy such as: the effects of electoral systems and fiscal institutions on fiscal policies (Grilli, Masciandaro and Tabellini, 1991; Halleberg and Von Hagen, 1997; Milesi-Ferretti, Perotti and Rostagno, 1999); the importance of ideology to influence some components of the budget (Boix 1996; 1997; Garrett, 1998); and the level of debt (Roubini and Sachs, 1989). For a literature review on the political economy of budget deficits, see Alesina and Perotti (1995), and Persson and Tabellini (1999). Also an important strand of the literature has lately focused on the non-Keynesian effects of a certain type of fiscal consolidations (McDemott and Wescott, 1996), and the importance of the composition of fiscal adjustments for the likelihood of their success (Alesina, Perotti and Tavares, 1998).

defines different strategies of fiscal adjustment and tests whether the same variables that ex-
plain composition of the budget during adjustment and non-adjustment years, also determine
the strategy of fiscal adjustment and its composition during episodes of fiscal consolidation.
Finally, section five summarizes the main findings and presents some conclusions.

2.   Fiscal Policies in the European Union (EU), 1960-2001[3]

When one looks at the overall record of fiscal outcomes in the last decades for the fifteen EU
Member States, it is easy to draw a general picture of common fiscal policy developments in
the whole European Union (EU).
     Fiscal policy during the past thirty years has been characterized by a tremendous increase
in public expenditures that rose from 35% of European GDP in 1970 to a peak of 53% in
1993. This was basically due to expansion of public consumption and social transfers, associ-
ated to the Welfare State. In 2000 they had declined to about 46% of GDP. But this means
that the size of the European public sector is still 13 percentage points of GDP higher than in
the US and 20 percentage points of GDP higher than in Japan.

Figure 1: The Structure of Public Spending in the EU, 1970-2000 (%GDP)
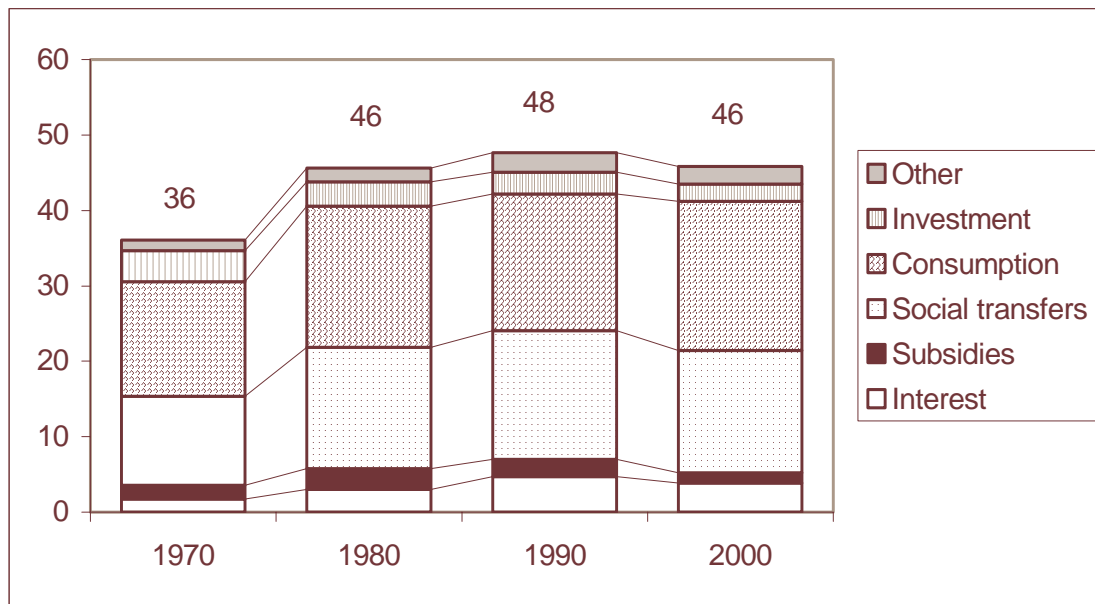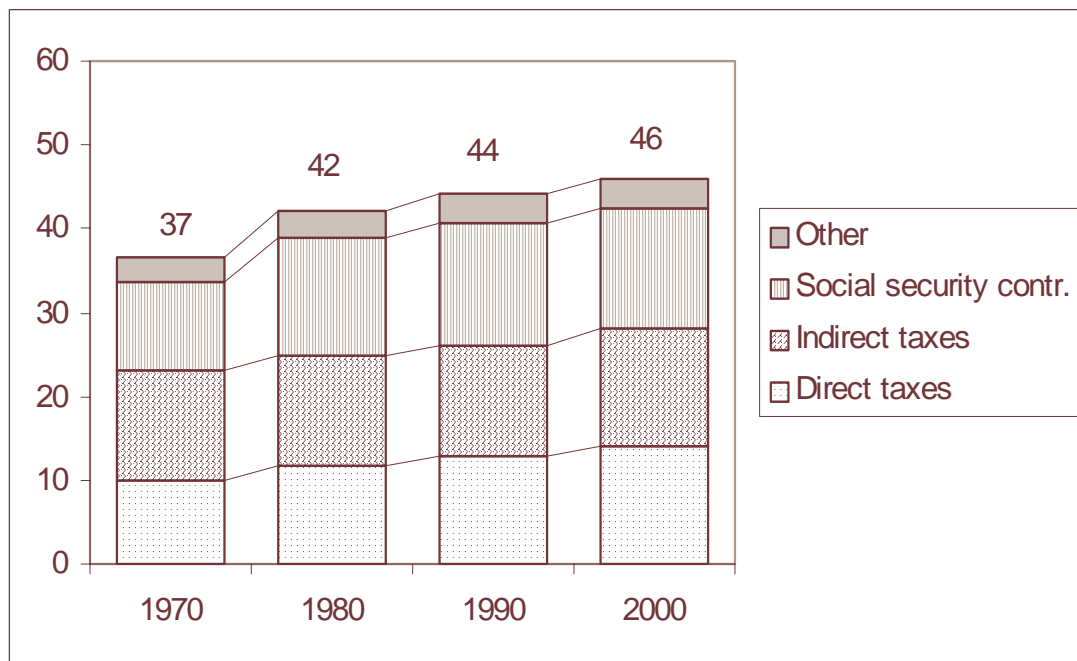

Source: Commission Services (EC, 2000b)

     In order to finance the strong growth of public expenditures, public revenues in the EU
grew from 35% in 1970 to a peak of 46% in 1999. They were expected to decrease only from
2000 onward. The increase was based on higher taxes on labour. Both direct taxes and social
contributions, increased by 3% of GDP. On the contrary, indirect taxes fell by six percentage
points during this period.
     Nevertheless, the increase in public revenues did not run parallel to the increase in public
expenditures, and then it was not sufficient to balance the budget. As a consequence, large
and persistent deficits arose, that had to be financed issuing debt.

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[3]   Note that the time interval of analysis in this paper covers from 1960 to 2001. However, some tables and fig-
      ures in different sections are restricted to the period from 1970 to 2000 due to a lack of detailed data on the
      budget composition for a significant number of countries during the sixties, and/or the presence of provi-
      sional data for 2001 in some cases.

Figure 2: The Structure of Government Resources in the EU, 1970-2000 (%GDP)
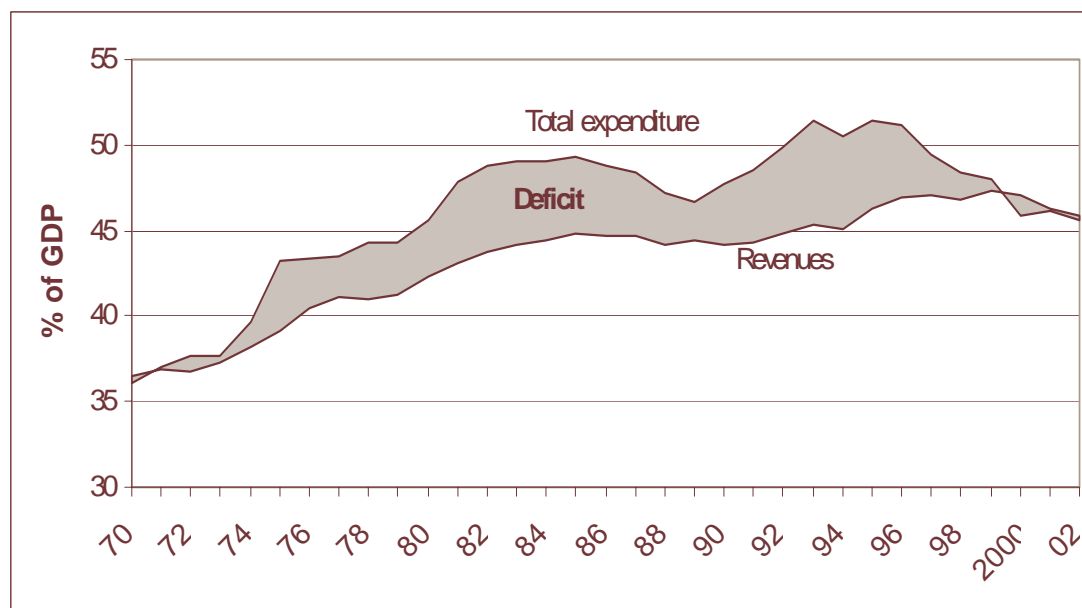

Source: Commission services. EC(2000 b)

This general development of fiscal policies around Europe made public deficit in the EU to remain above 3% from 1975 on. Public deficit reached its maximum in 1993 after the 1992-93 recession, recording 6% of GDP. These persistent deficits led to a rapidly increasing government debt, which jumped from 30% of GDP in the 1970s to a maximum of 72% in 1996. Public debt in the EU still remains at an average of 64% of GDP (with Belgium, Greece and Italy over 100%). Under such unsustainable path, the Maastricht convergence criteria forced a strong fiscal consolidation in the European Union (EU), which achieved a deficit reduction of 5 percentage points between 1993 and 1999.

Despite the previous general picture of aggregate convergence on budget balances, the structure of those budgets have significantly varied among different Member States. In the last decades, some countries decided to dedicate very large shares of their GDP to public provision of goods and services and the welfare state, while others preferred to limit the presence of the public sector in the economy. Table 1 illustrates very clearly this variation in the structure of fiscal policies and fiscal outcomes in Europe.

The previous variation in fiscal developments among different European countries, has been also translated into remarkable variation in the timing, the duration, and composition of fiscal adjustment episodes. At different moments in time, countries have found that their fiscal imbalances were unsustainable in the medium and long-run, and have decided to correct those imbalances and approximate public revenues and public expenditures. When they have done so, some have chosen to reduce their budget deficit gradually through successive short fiscal consolidations (like Finland or the Netherlands), while others preferred to pursue fewer but longer adjustments (like Greece or Ireland).

Figure 3: General Government Expenditures, Revenues, and Borrowing in the EU, 1970-2002

Source: Commission Services (EC, 2000b)

Table 1: Average Public Revenues, Expenditures, Deficit and Debt, 1970-2000 (%GDP)

	Public Revenues	Public Expen-ditures	Public Defi-cit/Surplus	Public Debt
Austria	45.7	48.3	-2.17	45.24
Belgium	47.3	53.0	-2.55	100.14
Denmark	52.6	52.9	-0.50	46.85
Finland	46.1	44.7	1.90	23.84
France	45.8	48.0	-1.98	37.16
Germany	44.5	46.6	-2.05	39.37
Greece	30.3	37.3	-6.26	61.74
Ireland	35.7	44.4	-5.26	74.39
Italy	38.5	46.7	-8.10	82.40
Luxembourg	45.5	44.6	2.43	9.04
Netherlands	48.1	47.9	-2.76	62.50
Portugal	32.3	36.6	-4.33	50.83
Spain	32.7	35.4	-2.90	35.95
Sweden	56.5	58.0	-0.75	49.98
UK	39.0	41.6	-2.40	53.94
EU-15	42.7	45.7	-2.53	51.67

Source: Own elaboration, based on AMECO database (2001)

In Table 2, it is possible to observe a considerable concentration of adjustment episodes during the second half of the nineties that by 1997 had already produced a certain convergence in aggregate budget balances toward the 3% limit. However, despite this moderate convergence in the timing of adjustment episodes, fiscal adjustment strategies continued to vary in terms of duration and composition of the consolidation strategy. Some countries such as Germany only experienced 4 years of fiscal adjustment during the last three decades, while others like the Netherlands, Finland, the UK, or Greece maintained their adjustment efforts at least during 15 years of the last 30 years.

Table 2:   Timing, Duration and Composition of Fiscal Adjustments in the EU, 1970-2000[4]

Episodes of Fiscal Adjustment in the EU, 1970-2000		Episo-des	Total Years	PDef 1994	PDef 1997	PDef 2000
Austria	1992-93; 1995-98	2	5	-4.9	-1.7	-1.1
Belgium	1977-78; 1982-85; **1987-88**; 1993-98	4	13	-4.8	-1.9	0.0
Denmark	**1983-87**; 1992-93; 1996-97; **1999-00**	4	10	-2.6	0.4	2.4
Finland	**1971-72**; 1975-77; 1981-82; 1984-85; 1988-89; 1995-96; **1998-99**	7	15	-6.0	-1.5	6.7
France	1976-77; **1980-8**1; 1996-98	3	7	-5.6	-3.0	-1.3
Germany	**1982-83**; 1989-90	2	4	-2.6	-2.7	1.5
Greece	1974-75; 1982-83, 1986-88; 1991-92; **1994-00**	4	16	-9.9	-4.7	-0.9
Ireland	1976-77; **1983-85; 1991-95; 1996-99**	4	13	-1.6	0.7	4.5
Italy	**1976-78**; 1983-84; 1991-94; **1997-00**	4	13	-9.1	-2.7	-0.3
Luxembg.	1977-78; **1982-86**; 1996-97	3	9	2.6	3.6	5.3
Netherld.	1972-73; 1977-78; **1985-86**; 1988-89; 1991-94; **1996-97**; 1999-00	7	16	-3.6	-1.1	2.0
Portugal	1969-70; **1982-84; 1986-87**; 1992-93; 1995-98	5	12	-5.9	-2.7	-1.4
Spain	1992-93; **1996-00**	2	7	-6.1	-3.0	-0.3
Sweden	1976-77; **1983-84**; 1986-90; **1996-99**	4	12	-9.9	-1.5	4.0
UK	**1969-70**; 1976-78; 1980-82; 1988-89; **1996-00**	5	15	-6.7	-2.0	4.3

Source: Own elaboration, based on AMECO database (2001)
Note: Pdef refers to Public Deficit/Surplus. Dates in bold refer to expenditure-based adjustments

As shown also in Table 2, almost half of these consolidation episodes were revenue-based, while the other half were expenditure-based. This variation is even more pronounced when one looks at the disaggregate structure of the public revenues and public expenditures. Table 3 shows for example the composition of the different adjustment strategies implemented by all EU Member States during the nineties to qualify for the third stage of EMU. While countries like France, Greece, Italy, and Portugal decided to follow revenue-based strategies, some others like Denmark, Finland, Sweden, and the UK decided to follow expenditure-based consolidation strategies, which also varied in the degree of current and capital expenditures that were diminished. Finally, a group of countries (Austria, Belgium, Spain, and the Netherlands) switched their strategies in the middle of the fiscal consolidation episode. More concretely, in the process of deficit reduction to fulfill the Maastricht criteria, Austria, Denmark, Finland, Ireland, Spain and United Kingdom decided to cut transfers, while the rest preferred to freeze them. Public Consumption was reduced in France, Ireland, Spain and United Kingdom, increased in the Netherlands and Belgium and maintained in the rest of the countries. Public wages were reduced in Belgium, Finland, Sweden and United Kingdom, while frozen in the rest of the EU. (EC, 2000)

It is this variation of the adjustment strategies implemented by EU Member States (in terms of duration and composition) what constitutes the paradox that serves as the point of departure of this article. Since the determinants of duration have been already studied in depth in previous works[5], the rest of this paper will explore what political and economic factors explain the mentioned variation in the composition of the budget, both under general conditions and during fiscal adjustment episodes in particular.

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[4]   For the purpose of this table, fiscal adjustment years are those in which the cyclically adjusted budget balance increased by more than 1% of cyclically adjusted GDP from the previous year. Any episode of adjustment is classified as a an expenditure-based adjustment if at least half of the improvement in the budget balance achieved during the consolidation experience comes from cuts in total public spending.

[5]   See footnote number 1.

Table 3: Composition of Fiscal Adjustments in the EU, 1990-2000

**Composition of budgetary consolidation the 1990s
(percentage points of GDP)**

	Consolidation period	Change in structural balance	Change in structural revenue	Total	Change in structural primary expenditure		Change in interest payments
					Change in capital spending	Change in current primary expenditure	
Revenue -based retrenchment							
FR	1995 - 97	3.3	2.6	-0.9	-0.1	-0.8	0.2
GR	1990 - 98	11.8	11.1	-1.0	0.8	-1.8	0.3
IRL	1990 - 94	2.3	3.0	2.5	0.6	1.9	-1.8
I	1991 - 97	9.4	6.4	-3.1	-1.0	-2.1	0.0
P	1992 - 96	3.6	7.4	6.1	0.9	5.2	-2.3
Expenditure -base retrenchment							
DK	1996 - 99	5.2	0.6	-2.9	-0.3	-2.6	-1.7
FIN	1993 - 99	4.0	-4.6	-9.5	-0.7	-8.8	1.0
SW	1994 - 98	10.9	3.0	-7.5	-0.1	-7.4	-0.4
UK	1994 - 98	6.6	4.2	-2.8	-0.5	-2.3	0.5
'Switching strategy'							
A - 1st phase	1995 - 96	1.3	2.3	0.8	-0.4	1.2	0.2
- 2nd phase	1997	2.2	-0.4	-2.3	-0.9	-1.4	-0.4
B - 1st phase	1992 - 93	1.7	2.9	0.5	0.2	0.3	0.7
- 2nd phase	1994 - 96	3.6	1.4	-0.2	0.1	-0.2	-1.9
DK - 1st phase	1992 - 93	1.4	3.3	1.3	0.1	1.1	0.6
- 2nd phase	1994 - 97	1.7	1.5	-0.7	-0.8	0.0	0.4
NL - 1st phase	1991 - 93	4.3	4.2	-0.4	0.0	-0.4	0.2
- 2nd phase	1994 - 97	1.7	-4.5	-5.4	0.9	-6.4	-0.8
SP - 1st phase	1992 - 93	-0.3	3.9	2.8	-0.6	3.5	1.3
P - 2nd phase	1994 - 97	3.5	-1.4	-4.6	-1.0	-3.6	-0.2
EU-11 - 1st phase	1992 - 93	0.7	3.1	1.8	-0.2	2.0	0.6
- 2nd phase	1994 - 97	3.1	0.7	-2.0	-0.4	-1.6	-0.4

Source: Commission Services (EC, 2000b)

The first aspect is related to the distribution of income and the reallocation of resources, while the second aspect is related to the generation of this income and those resources at a certain growth rate.

The decision over who gets what in a country and who pays to finance the public sector's activity, immediately implies a reallocation of resources. This reallocation effect can be the unintended outcome of public policies not directly conceived to affect the distribution of income, or in many occasions it is the direct result of a carefully designed policy aimed at increasing the degree of equality in the economy[6]. The ways in which a more equal distribution of income can be promoted through fiscal policy are almost uncountable. Some countries have, for example, promoted very actively direct transfers of income from public resources to improve the situation of the bottom tier of the income distribution. While others have focused on the top percentiles with highly progressive taxes.

These different approaches do not also reallocate resources, but can also have important growth effects. In a Keynesian framework, economists have traditionally expected fiscal adjustments to have a negative impact on aggregate demand, and thus to induce a contraction of the total level of output. Nevertheless, according to McDermott and Wescott (1996), Alesina and Perotti (1995; 1996; 1997; 1998), Buti and Sapir (1998) and Von Hagen, Hallett and

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[6] "Fiscal policy-taxation and spending is a government's most direct tool for redistributing income, both in the short and the long-run" (Tanzi, Chu, and Gupta, 1999, 23)

Straucht (2001), fiscal adjustments that rely primarily on spending cuts in transfers and the government wage bill can be expansionary (anti-Keynesian effect) and have a better chance of success than do fiscal adjustments that rely primarily on tax increases and cuts in public investment (which tend not to last and are contractionary).

One explanation for this evidence is a demand side explanation: a serious fiscal tightening increases demand. When public deficits disappear, future tax burden decreases, disposable income rises, interest rates decline due to lower public debt, and altogether make both consumption and investment to rise. An alternative supply side explanation affirms that cuts in wage government consumption and in transfers can start a virtuous cycle that makes the economy more competitive. Particularly in highly unionized and very open countries, the combination of a reduction in public employment (which decreases the demand for labor), and a cut in transfers (which reduces the alternative income available to the unemployed) reduce the bargaining power of unions. This is supposed to increase the competitiveness of the tradable sector, thus increasing exports and expanding growth.

Given such remarkable economic and political consequences, the decision regarding the budget's composition is probably the most important decision that any government takes every year. And this relevance of fiscal policy has been augmented in the last decade in Europe, once the introduction of fixed exchange rates and full capital mobility has made fiscal policy the most effective economic policy instrument in the hands of national governments.

Governments choose every year the composition of the budget surrounded by certain economic and political conditions and embedded in a particular institutional framework. While the latter tend to remain constant over time, the former vary almost constantly. These dynamic components that vary every year are of economic and political nature and can become crucial factors for any government willing to consolidate the budget.

3.1 Economic factors

Budget deficits are the result of different economic and political decisions. However, if a government is to consolidate the budget successfully, it has to take into account the previous level of structural deficit, and the cyclical surrounding economic conditions in terms of prices and employment.

The most important constraint that governments face when deciding about the composition of the budget and the strategy of fiscal adjustment, is the accumulated level of debt. The higher it is, the higher the share of public expenditures that has to be dedicated to interest payments generated by that debt. This is known as the "snow-ball effect", and it can seriously diminish the alternatives available to governments.

In this respect, if the effect of interest payments on the budget is discounted (because they lay out of the government's immediate control), the remaining structural balance is also very important to predict the likelihood of fiscal adjustments to start and survive. The higher and the more persistent the structural deficit in a country, the more difficult will be for that country to change this tendency and to generate structural surpluses to avoid defaulting on the debt.

The economic cycle also affects the public budget very strongly through automatic stabilizers: when there is a recession, tax revenues decrease, and unemployment benefits push up public expenditures. In very generous welfare systems, the effect of the unemployment rate on the budget is very strong: when the unemployment rate is growing, the increase in the amount of public resources devoted to unemployment benefits makes it more difficult to launch a fiscal adjustment based on spending cuts. In fact, the group of countries that met the Maastricht deficit criteria would have been considerably smaller, if the second half of the nineties would not witnessed a period of remarkable economic growth

Growing prices can be the result of different disequilibria, from excess of demand and wage rigidities in the labor market to malpractice in the way of financing public deficits by printing money. In all cases, tight monetary policy in the form of higher interest rates is the immediate tool that is generally used to control inflation. But fiscal policy is also used with this purpose, since taxes increase prices and public outlays tend to boost economic activity creating temporary excesses of demand. Therefore, when prices are high, the probability of starting a fiscal consolidation increases. But when prices are under control as a result of a tight monetary policy the probability of starting a fiscal consolidation the following year diminishes.

3.2 Political factors

Cabinets are responsible for both the design and the implementation of fiscal policies and adjustment strategies. These cabinets are made of politicians that belong to different (or the same) political parties; they have different ideologies; and they all depend on electoral results to continue in office.

Traditionally, scholars working on the problem of public deficit reduction have focused on different barriers to successful consolidation. All these studies are related to the idea that fragmentation in decision-making is negative for expenditure control, because each group in a majority can push for an expenditure but it only internalizes a part of the costs and distortions associated to the increase in revenues that is necessary to equilibrate the budget (Weingast, Shepsle and Johnson, 1981; Hallerberg and Von Hagen, 1997; Von Hagen, Hallett and Straucht, 2001). According to these theories, one can expect larger coalitions and larger cabinets to be positively associated to higher expenditures and deficits.

In addition, governments are in hands of politicians affiliated to political parties, and different parties usually have different ideologies regarding the relative roles they assign to the state and the market in the economy.

Following the socialist preference for equality, redistribution, social benefits to the unemployed, and interventionist supply side policies in the form of public provision of human and physical capital, left-wing governments have traditionally promoted a higher degree of public intervention in the economy. To finance all these redistributive expenditures, left-wing governments have tended to tax more and more progressively. Higher public expenditures financed by higher public revenues does not mean that one should expect left-wing governments to run deficits more often than right-wing governments. Stronger presence of the State in the economy does not initially have to be associated with unbalanced budgets. Moreover, according to Keynesianism, demand management of the economy, requires that surpluses are built during periods of economic growth, to be used for consumption smoothing during periods of recession. Also, in order to intervene on the supply side of the economy through public investment in physical and human capital socialist governments have usually preferred to maintain close to balance budgets (Boix, 1996).

By contrast, right-wing governments have traditionally preferred to run balanced and small budgets, because this means lower presence of the State in the economy and more room of maneuver for the market forces to generate economic growth. As a result, right-wing governments have tended to tax less and spend less than socialist governments. Lower levels of expenditures to GDP require lower levels of public revenues, and ideally less distortionary taxes that harm market mechanisms and private incentives.

Finally, politicians depend on the popularity of their policies to remain in office.

Under the assumption of fiscal illusion, policy-makers assume that voters overestimate the benefits of current expenditures and underestimate the future tax burden that will be

needed to finance current expenditure[7]. In addition, it will be difficult for misinformed voters to fully understand the details of public budget's composition and its long-term impact. Thus politicians will be willing to cut taxes and increase public consumption and transfers before elections. Apart from the immediate effects that these policies may have on voters, these policies will also launch a fiscal expansion that is likely to increase the rate of growth of GDP and the employment level[8]. Note that these electorally-driven policies are not supposed to affect only the government that takes these decisions, but also the newly elected government. Moreover, in democracies were alternation is common, fiscal policy can be strategically managed by an outgoing government to return to office in the next election, immediately after the electorate has punished the incoming government for medium-term undesirable fiscal outcomes that were really induced by the outgoing government and not by the incoming one.[9]

3.3 Empirical evidence of the effect of economic and political factors during adjustment and non-adjustment years

To test the effect that these political and economic factors have on the composition of the public budget during both adjustment and non-adjustment years, I run the following regression of time-series cross-national data for the period from 1970 to 2001 in the fifteen European Union (EU) Member States.

$$\Delta Y_{i,t} = \alpha_0 + \alpha_1 BBAL_{i,t-1} + \delta_1 \Delta U_{i,t} + \delta_2 \Delta P_{i,t} + \beta_K X_{i,t} + T_t + C_i + \varepsilon_{i,t} \quad (1)$$

Where $Y_{i,t}$ is any item of the budget cyclically adjusted (to partial out the evolution of the cycle and the interest payments which are out of the control of politicians) in country i during year t; BBAL is the cyclically adjusted budget balance minus interests (a positive balance is a primary surplus and a negative balance is a primary deficit); ΔU is the change in the unemployment rate; ΔP is the rate of inflation of the consumer price index; X is a vector of four political independent variables (percentage of total cabinet posts held by social-democratic and other left parties; number of parties in government; number of spending ministers in the cabinet; and number of months before next election)[10]; T is a vector of time effects; C is a vector of country dummy variables or fixed effects. The use of fixed effects is particularly important in this model since most variables vary more across units than over time.

The specification is identical to the one used by Perotti and Kontopoulus (1998) to explore the same question, though in a different sample. As they explain: "the use of variables representing the economic environment- ΔU and ΔP - has two basic justifications: first, to capture the effects of, say, unemployment on expenditure via unemployment-related subsidies

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[7] See Buchanan and Wagner (1977) on fiscal illusion.

[8] See Alesina, Cohen and Roubini (1992 , 1993) on budget electoral cycles.

[9] See Alesina and Perotti (1995) for comments on distributional conflicts, war of attrition models and the strategic role of debt. An example may serve to illustrate this point more clearly. For example, a conservative government that dislikes the provision of public goods, if it is certain that it is going to be substituted by a leftist spending government willing to expand the provision of public services, it may find strategically optimal to leave less money to spend to the incoming new cabinet. By leaving an important amount of debt, the conservative government would have tied the hands of the leftist government, and would have obliged it to raise new taxes (which is unpopular) and/or not to comply with its electoral program of expansion of public services (which will cause strong disappointment in its electorate). With this strategic use of the debt, the incumbent conservative government would have dramatically increased its probabilities of defeating the new leftist government in the next round of elections, and coming back into government

[10] See the Statistical Appendix for further specification of all variables used in this article.

and similar types of expenditures[11]; second, to capture the reaction function of policymakers implementing countercyclical policies." (p. 15).

By introducing as independent variables coalition size and cabinet size, I also follow Perotti and Kontopoulus (1998) in abandoning the classical "Type of Government" variable[12]. The inclusion of these variables is incompatible with the inclusion of any independent variable related to the electoral system (as some others studies have done), because this is a variable that correlates strongly with coalition size, since more proportional systems tend to produce coalition governments[13].

In addition, any variable that accounts for procedural fragmentation (such as the existence of spending limits, the nature of the budget negotiations or the existence of strong finance ministers) is also excluded, because they are time invariant and cannot be distinguished from country dummies, and because empirical evidence from related studies (Perotti and Kontopoulus, 1998; Mulas-Granados, 2003) have lastly demonstrated that contrary to previous findings, the impact of those variables on fiscal outcomes is rather insignificant.

Finally, note that although the ideological orientation of the various political parties that have been in government across Europe during the last forty years presents important domestic particularities, for the sake of higher parsimony one can always polarize the ideological distribution according to the number of cabinet seats held by center-left parties versus those occupied by center-right parties. In doing so, the results that one obtain for center-left governments are by definition the opposite of those to be obtained for center-right ones. In addition, to focus specifically on the effect that center-left cabinets have on the budget's composition is particularly relevant if one takes into account that according to a growing number of scholars the combination of increased electoral competition, globalization, and European integration have progressively reduced since the mid-eighties the traditional tendency of left-wing parties to intervene in the economy.

In order to study the effect of all the independent variables mentioned above on the different components of the budget, the same regression has been run several times with the following dependent variables: (1) the government's budget balance cyclically adjusted; 2) revenues of general government cyclically adjusted; (3) expenditures of general government excluding interest payments cyclically adjusted; (4) taxes on income and wealth (direct taxes); (5) taxes on production and imports (indirect taxes); (6) social contributions; (7) final government consumption (public consumption); (8) collective consumption; (9) social benefits in kind; (10) social transfers other than in kind (social transfers); (11) compensation of employees (public wages); and (12) gross fixed capital formation (public investment).

All equations have been estimated the whole 1970-2001 period, and two sub-periods, 1970-1994 and 1996-2001, to avoid the inconsistencies that the change from ESA-79 to ESA-95 generate in the AMECO Database of the European Commission[14].

The estimation technique applied to all regressions has been the one suggested by Beck and Katz (1995, 1996), using Ordinary Least Squares with panel-corrected standard errors to deal with panel heteroskedasticity, spatial correlation and serial correlation[15]. Table 4 presents

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[11]   This type of control is especially important for some sub-items of the budget, where the EU Commission does not perform cyclical adjustments.

[12]   That variable was first used in this context by Roubini and Sachs (1989a) to study the relationship between "type of governments" and deficit, which they found positively associated. This variable is a multinomial variable with six levels that decrease from single party government to caretaker government.

[13]   See Hallerberg and Von Hagen (1997).

[14]   To test the importance of the Maastricht Treaty, as a possible better criterion to split up periods, all regressions have been run also for periods 1970-1992 and 1993-2001 (excluding 1995), and results are basically the same than those for periods 1970-1994 and 1996-2001.

[15]   According to Kaufman and Segura-Ubiergo (2001: 18), "the use of panel-corrected standard errors usually produces rather conservative results, since it tends to increase the standard errors of the estimates. Moreover, the inclusion of dummy variables tends to deflate the statistical significance of the other regressors (Sayrs

the estimated coefficients for all regressions on main aggregates (that is Revenues, Expenditures and Budget Balance).

Regarding the effect of economic factors on the main aggregates of the budget, those results show that the better the budget balance in *t-1*, the higher the worsening of the budget balance in the current year. Meaning that governments tended to run deficits more often when their budgetary position in previous years was not in stress.

The effect of unemployment on public revenues and public expenditures was very cyclical. A worsening of the unemployment rate reduced public revenues and increased public expenditures. Similarly, an increase in the level of prices, increased both public revenues and expenditures. The positive effect that prices had on the change in the budget balance confirms the hypothesized impact that monetary easing (normally conducive to price increases) drives the budget balance in the direction of tightening.

Also, results in table 4 show that between 1970-2001 left-wing governments were not associated with budget deficits, and that they tended to be positively associated with higher revenues and expenditures. The positive impact in revenues was stronger in the nineties, while in that period the positive impact in expenditures became negative, associated with the process of fiscal adjustment in the run-up to EMU.

Table 4: Composition of the Budget. Main Aggregates, 1970-2001[16]

	1970-2001	1970-2001	1970-2001	1970-1994	1970-1994	1970-1994	1996-2001	1996-2001	1996-2001
	Var.Budg	Var. Rev	Var.Exp	Var.Budg	Var.Rev	Var.Exp	Var.Budg	Var. Rev	Var.Exp
Budget balance t-1	-0.182***	-2.805	1.907	-0.177***	-3.917*	1.125	-0.725***	-4.723**	-1.798
	(4.18)	(1.52)	(0.96)	(3.21)	(1.81)	(0.46)	(10.47)	(2.60)	(0.32)
Var.Unemploymt	-0.003	-4.114***	3.751**	-0.024	-3.672*	2.086	0.019	-2.381	3.011
	(0.03)	(2.91)	(2.27)	(0.23)	(1.87)	(1.64)	(0.11)	(0.14)	(0.27)
Var.Prices	0.080***	2.963***	0.207	0.083***	3.217***	0.240	0.058*	3.913**	-0.316
	(3.02)	(3.11)	(0.17)	(2.61)	(3.21)	(0.18)	(1.80)	(2.07)	(0.13)
Government-Left	-0.002	0.197*	0.114*	-0.003	0.070	0.134*	0.017***	1.305***	-0.460
	(0.79)	(1.80)	(1.90)	(1.06)	(0.57)	(1.86)	(3.63)	(2.97)	(1.47)
Coalition Size	-0.107	1.515	2.166	-0.110	3.143	2.588*	-0.354***	2.364**	-1.147
	(1.19)	(0.30)	(0.42)	(1.01)	(0.53)	(1.75)	(2.83)	(2.22)	(0.76)
Cabinet Size	-0.168**	1.568**	2.712*	-0.159*	2.705	3.433***	0.214	2.021	-2.626
	(2.41)	(2.03)	(1.88)	(1.79)	(1.17)	(2.80)	(1.32)	(0.38)	(1.60)
Months - Election	0.014***	0.384	-0.433*	0.017***	0.201	-0.700**	0.008	0.947	0.228
	(2.91)	(1.37)	(1.73)	(2.93)	(0.60)	(2.36)	(1.36)	(1.60)	(0.45)
Constant	1.773**	84.758**	12.491	1.387	92.954**	-35.223	-0.216	13.766	37.593**
	(2.30)	(2.10)	(0.29)	(1.48)	(2.03)	(0.78)	(0.12)	(0.07)	(2.13)
Observations	412	413	413	339	340	340	73	73	73
Number of groups	15	15	15	15	15	15			
R-Squared	0.30	0.36	0.37	0.29	0.33	0.36	0.75	0.63	0.55
Wald-Chi2	2002.77	1892.16	4628.05	5952.09	5952.97	20423.28	11.16	7.40	7.76
Prob>Chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Panel-corrected z-statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
Regressions for 1996-2001 were OLS with robust standard errors, because panel corrected standard errors cannot be used when number of years is smaller than the number of countries in the panel .

Also, as expected, a growing number of parties in the coalition and a growing number of ministers in the cabinet were positively associated with higher expenditures, though these positive correlations were only statistically significant in the period 1970-94. In the second half of the nineties, as happened with ideology, they changed their signs. The impact of the number of months before next election is surprising: the longer the time before next election,

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1989) (…) this carries some risk that causal hypotheses will be rejected prematurely. On the other hand, it also increases our confidence that results which do emerge as significant are not the consequence of unsound statistical assumptions or inappropriate econometric methods."

[16] For presentation purposes, I have not included in this table the 14 Country and the 31 Time dummy variables.

the higher the adjusted deficits, and in the period from 1970 to 1994, the closer the election, the higher the adjusted expenditures, what confirms the electoral business cycle hypothesis.

Looking more in depth at the different components of public revenues and public expenditures between 1970-1994, just before the stronger fiscal efforts to qualify for EMU took place, gives a better perspective on the influence that each economic and political factor had on the budget's composition.[17]

Table 5: Composition of the Budget. Individual Items, 1970-1994

	Vindtax	Vdirtax	Vpwages	Vfconsu	Vcolcons	Vsbenef	Vstransfer	Vpinvest
Budget Balance t-1	-3.115***	-2.835**	0.807	1.061	0.531	0.543	0.541	0.267
	(2.70)	(1.96)	(0.66)	(0.78)	(1.02)	(0.72)	(0.40)	(0.26)
Var.Unemploymt	1.287	-4.647*	3.292*	2.400	2.510**	2.975*	1.379***	-1.524
	(0.30)	(1.72)	(1.86)	(1.16)	(2.39)	(1.68)	(3.28)	(0.57)
Var.Prices	1.755**	1.014*	0.080	0.529	0.004	-0.168	-1.052	-0.456
	(2.23)	(1.81)	(0.15)	(0.77)	(0.02)	(0.70)	(1.33)	(0.83)
Government-Left	-0.003	-0.059	0.123*	0.026	0.126***	0.161***	0.231**	0.042*
	(0.03)	(0.61)	(1.71)	(0.30)	(3.58)	(3.32)	(2.11)	(1.92)
Coalition Size	2.812	-2.278	-1.940	0.880	2.748*	2.394	2.041*	0.012
	(1.63)	(0.52)	(0.65)	(0.28)	(1.96)	(1.34)	(1.81)	(0.00)
Cabinet Size	-2.882*	2.823*	3.000	1.225	2.644**	2.787***	3.365***	0.540*
	(1.65)	(1.68)	(1.38)	(0.48)	(2.28)	(3.09)	(2.62)	(1.71)
Months - Election	0.473**	0.577**	0.198	-0.115	-0.089	-0.076*	-0.207*	0.153
	(2.27)	(2.23)	(1.15)	(0.54)	(1.16)	(1.76)	(1.93)	(1.05)
Constant	10.547***	42.941	8.182	18.043	18.271	8.387	-43.905	24.392
	(3.10)	(1.33)	(0.34)	(0.63)	(1.34)	(0.43)	(1.22)	(1.00)
Observations	340	340	340	340	322	322	340	340
Number of groups	15	15	15	15			15	15
R-Squared	0.28	0.15	0.34	0.38	0.62	0.57	0.39	0.20
Wald-Chi2	4723.64	4673.66	24960.10	20038.3	11.17	9.00	52799.74	814.73
Prob>Chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Panel-corrected z-statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Results in table 5 show that between 1970-94 the budget balance in *t-1* had a negative effect on public revenues coming from direct and indirect taxes, showing that governments tended to lower taxes when the budget balance had improved in the previous year. In addition, a positive change in the unemployment rate diminished the amount of revenues coming from direct taxation and increased collective consumption, social benefits, and social transfers, while a positive change in the level of prices increased the level of revenues coming from both direct and indirect taxes. Both results confirm the cyclical effect that unemployment and prices have on the different components of the budget.

On the other hand, results from table 5 also show that leftist governments, coalition size and number of spending ministers were positively and very significantly correlated with higher social transfers[18]. In addition, leftist governments and big cabinets were associated with higher collective consumption and higher social benefits. Finally, by looking at the effect of individual items of public revenues, the effect that closeness to elections had on certain aspects of the budget is even clearer. The longer the period before elections, the higher the revenues from direct and indirect taxes, or in other words, the closer the elections, the lower the revenues from taxes. Also, although they are not statistically significant, the negative coefficient of Months to next Election in the social transfers regression, and the positive coeffi-

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[17] Regressions for variation of Collective Consumption and variation of Social Benefits were OLS with robust standard errors, not panel corrected standard errors, since due to the important number of missing cases, the number of observations per panel used to compute the disturbance covariance matrix in the panel corrected standard errors technique, is less than half of the average number of observations.

[18] These results are consistent with those obtained by Perotti and Kontopoulus (1998) for the same period but with a larger sample of OECD countries.

cient in the public investment one, are consistent with Rogoff's model predictions (Rogoff, 1990), where opportunistic policy-makers cut public investment before elections because they are less visible to voters than transfers.

Nevertheless, evidence from the second half of the nineties shows that the process of fiscal consolidation required to qualify for the third stage of EMU have reversed the effects that political variables had on fiscal outcomes.

Table 6: Composition of the Budget. Individual Items, 1996-2001

	Vindtax	Vdirtax	Vpwages	Vfconsu	Vcolcon	Vsbenef	Vstransfer	Vpinvest
Budget Balance t-1	3.165	-4.443*	-2.208	1.765	3.112	2.538***	-0.082	2.981**
	(0.56)	(1.82)	(1.15)	(0.26)	(1.38)	(4.58)	(0.02)	(2.34)
Var.Unemploymt	0.465	-1.412	2.483	1.587*	1.767	3.057	1.970*	-1.869
	(0.04)	(1.33)	(0.95)	(1.88)	(0.56)	(1.19)	(1.82)	(0.28)
Var.Prices	1.520	1.068**	0.383	2.316	1.070	-1.656	-1.300	-0.770*
	(0.93)	(2.43)	(0.12)	(0.68)	(0.72)	(0.59)	(0.85)	(1.94)
Government-Left	0.202	1.045**	0.143	-0.213	-0.037	-0.307	-0.547*	0.523**
	(0.62)	(2.60)	(0.59)	(0.56)	(0.29)	(1.54)	(1.80)	(2.44)
Coalition Size	-1.761	2.490*	-1.935*	-1.933	-2.102	-3.531	-3.179	-3.732
	(0.98)	(1.89)	(1.73)	(1.30)	(0.70)	(0.74)	(0.80)	(0.51)
Cabinet Size	4.054	1.751*	-1.586	-2.023**	-4.281	-1.809**	-2.033	-1.653
	(0.23)	(1.76)	(1.64)	(2.13)	(1.10)	(2.66)	(0.56)	(1.24)
Months - Election	-0.104	0.756	-0.166	0.005	-0.050	-0.027	0.137	-0.449
	(0.20)	(1.54)	(0.55)	(0.01)	(0.28)	(0.14)	(0.52)	(1.40)
Constant	135.353	184.155	226.85**	285.80**	66.542	168.610**	125.552	136.928
	(0.74)	(1.01)	(2.40)	(2.35)	(1.23)	(2.45)	(1.24)	(1.46)
Observations	73	73	73	73	73	73	73	73
R-squared	0.38	0.49	0.41	0.48	0.48	0.58	0.50	0.46
F (25, 47)	4.56	5.39	3.57	3.81	3.89	5.29	9.43	7.23
Prob>F	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000

Panel-corrected z-statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
All these regressions are OLS with robust standard errors, because panel corrected standard errors cannot be used when number of years is smaller than the number of countries in the panel .

As can be seen in table 6, the main finding for the second half of the nineties is that leftist governments, larger coalitions, larger cabinets and closeness to elections are not associated anymore with higher expenditures and higher transfers. The most important result is, however, the one related to ideology of the cabinet. As can be seen in that table, during the second half of the nineties leftist governments increased their revenues (mainly from direct taxes) to finance increases in the government wage bill and in public investment. These two items of the expenditures side of the budget were positively associated with left-wing governments before 1995, but they were not statistically significant and they were less important than social transfers. It looks like, in the run towards EMU, left-wing governments have readapted their preferences, and when forced to cut expenditures they preferred to maintain public wages and public investment, even at the expense of social transfers.

These results are very important because they support the argument that when demand policies have proved to have only temporary effects in the long-run and its short-term success depends on certain conditions of the labor market, the state and the international economy, leftist governments have been only left with the possibility to affect economic policies on the supply side. Boix (1996; 1997) has recently demonstrated that left-wing governments are likely to implement interventionist supply-side policies, through the public provision of human and physical capital, to increase growth and the competitiveness of the economy, and make better the worse-off. According to this new approach to economic policy management, capitals will not fly out of the country to avoid higher taxation if public investment is expected to increase overall productivity in the economy (Boix, 1997; Garrett, 1998). Results

from the determinants of the budget composition during the second half of the nineties seem to corroborate their findings.

4.   Economic and political determinants of the budget's composition (Adjustment episodes)

Once the political and economic determinants that affect the composition of the budget during adjustment and non-adjustment years have been found, the paper turns now to answer the second question: i.e. What are the political and economic determinants that explain that during episodes of fiscal adjustment, different countries follow different strategies of adjustment in terms of budgetary composition?

The first thing that needs to be done before answering to this second question is to select a sub-sample of fiscal adjustment episodes from the general sample of fiscal data used in previous sections of the article. And in order to do this, a criterion for this selection must be also specified.

4.1 A criterion for the selection of adjustment episodes

As was mentioned in the introduction to this article, a public deficit exists when total public revenues are insufficient to pay for total public expenditures. This difference is covered annually by borrowing money, and this constitutes the public debt. Therefore, public deficits can be increased or reduced every year. A fiscal adjustment takes place when in any given year the public deficit is reduced.

However, because this section focuses on fiscal adjustment episodes that are politically driven, episodes of fiscal adjustment should be identified attending to annual positive variations of the cyclically adjusted primary deficit. As has been also stated in previous sections, this allows one to focus on discretionary measures taken by politicians, once the economic cycle and debt interest payments have been discounted.

The existing literature on fiscal consolidations follows the trend started by Alesina and Perotti (1995), and define episodes of fiscal consolidations as those in which the cyclically adjusted primary budget balance increased by at least 1.25% of GDP in two consecutive years, or if the change in the cyclically adjusted budget balance exceeded 1.5% of GDP in one year and was less than 1.25% of GDP in the following or the precedent year. To be consistent with this literature and to make the findings of this section comparable to other studies, the same criteria is adopted here to select all fiscal adjustment episodes from the general sample. The only innovation that has been introduced is that if for example an episode of fiscal adjustment lasts for 4 years and there is a change in the government's ideology in the middle, the case is separated into two cases. This facilitates the comparison between leftist and rightist strategies of adjustment; a comparison that deserves in this restricted analysis of adjustment episodes an special attention, in order to test if ideology maintains the predictive power that it showed in the analysis for both adjustment and non-adjustment years

4.2 Partisan strategies of fiscal adjustment and the composition of the budget

In cases of unbalanced budgets, the public budget deficit can be reduced by increasing revenues in order to allow the government to pay for the same level of public expenditures (revenue-based strategy), or by reducing public expenditures while public revenues are maintained or even reduced (expenditure-based strategy). More specifically, the range of possible strategies that are available to any government willing to start a fiscal consolidation are:

-Type 1 Strategy (S1): To increase revenues more than what it increases expenditures; ($\Delta\Delta R; \Delta E$)

-Type 2 Strategy (S2): To increase revenues and freeze expenditures; ($\Delta R; = E$)

-Type 3 Strategy (S3): To increase revenues and reduce expenditures; ($\Delta R; \nabla E$)

-Type 4 Strategy (S4): To freeze revenues and reduce expenditures; ($= R; \nabla E$)

-Type 5 Strategy (S5): To reduce revenues less than what it reduces expenditures. ($\nabla R; \nabla\nabla E$).

Following the main hypotheses presented in section 3.2, left-wing governments should be associated to revenue-based strategies of fiscal adjustment (S1>S2>S3>S4>S5), because their preference for equality and for bigger presence of the public sector in the economy increases public expenditures, and this calls for higher revenues in order to keep the budget balanced. Deepening in leftist preferences with respect to the composition of the budget during fiscal adjustment periods, one should expect those preferences to be the same than their preferences during non-adjustment years: if forced to freeze or reduce expenditures leftist governments are expected to maintain the government wage bill, transfers payments and public investment.

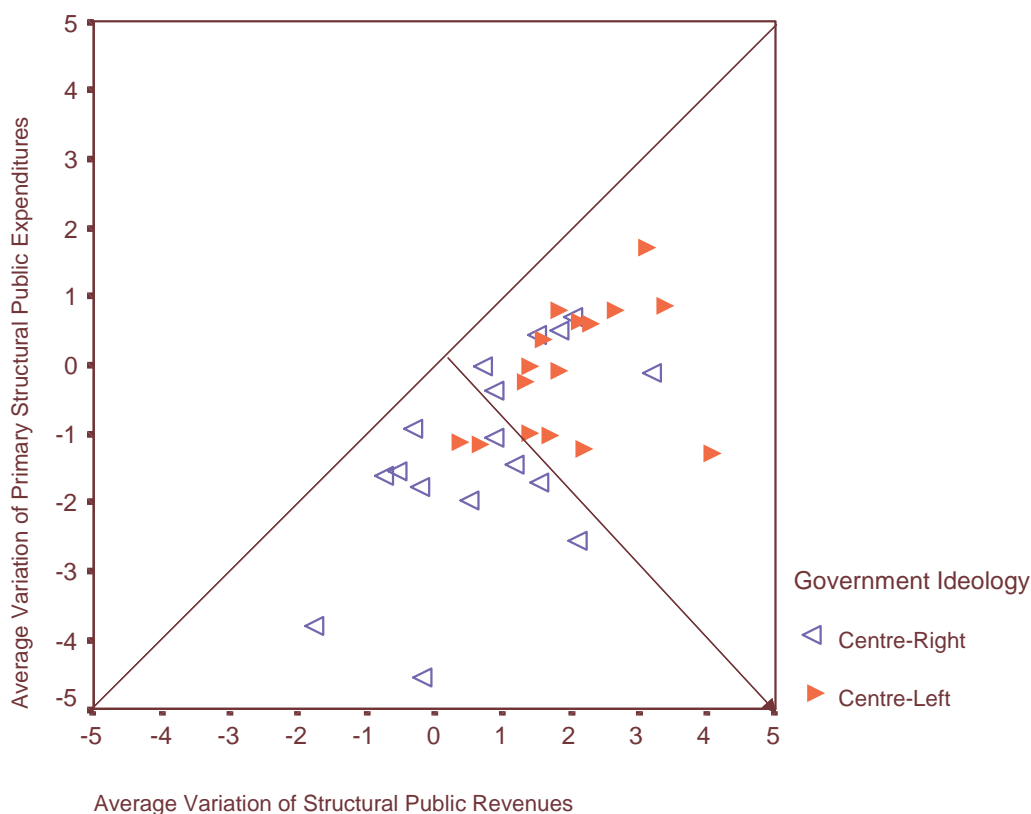*Figure 4: Strategies of Fiscal Adjustment. Ideal Types*
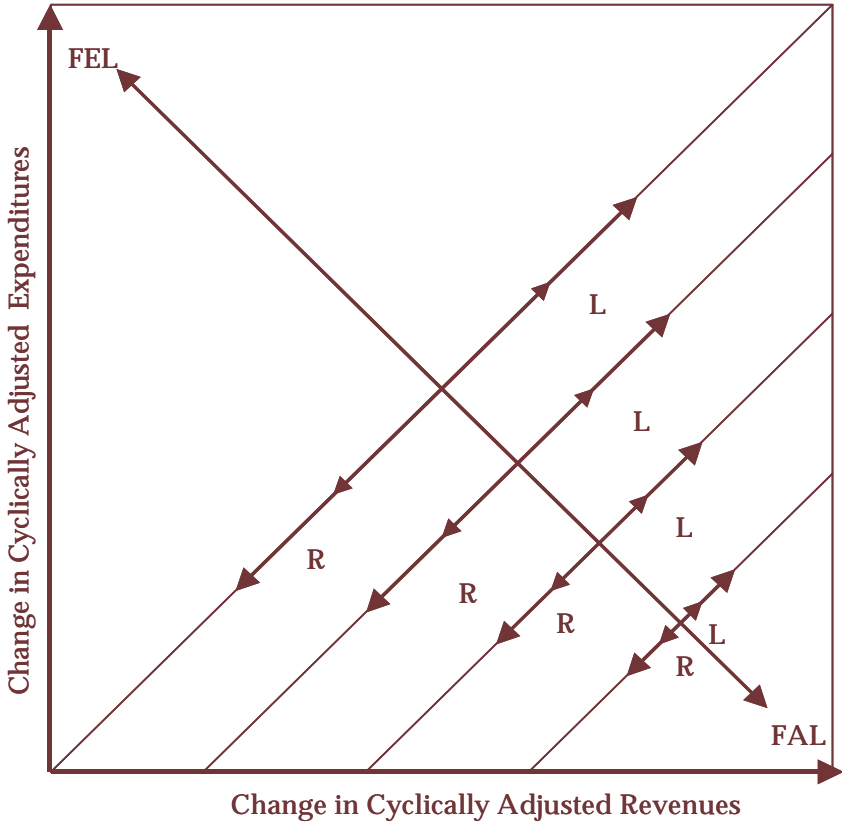
Thus, all left-wing governments undertaking a fiscal adjustment should place themselves to the right of the 45° line (see figure 4 above), when the FEL (Fiscal Expansion Line) becomes the FAL (Fiscal Adjustment Line). And at each level (levels defined by the degree of the adjustment), leftist governments should be expected to choose those strategies that imply both higher levels of public revenues and public expenditures (to the right of FAL). Similarly, preference for a weaker public sector should place right-wing governments making a fiscal adjustment below the Fiscal Adjustment Line (FAL).

4.3 Empirical evidence for the effect of economic and political factors during adjustment episodes

In order to test the previous hypotheses, 53 episodes of fiscal adjustment are selected in the European Union (EU) from 1960-2000, according to the definition provided in section 4.1.

Simple plotting of these 53 episodes of adjustment, labeled by the ideology of the party in government that undertook the adjustment, gives an idea of how well the data fits the partisanship hypothesis presented in section 4.2.

Figure 5: Strategies of Fiscal Adjustment, 1960-1991

Basically, both left-wing and right-wing governments followed the predicted consolidation strategies. Nevertheless, it looks like between 1960-91 some rightist governments followed leftist strategies of fiscal adjustment, increasing revenues substantially to finance increases in expenditures. This basically reflects the Welfare State consensus of the 60s and 70s in Europe, that developed the Welfare State in all European countries independently of the party in government.

The picture is less clear during the fiscal adjustment episodes that preceded EMU, even though the partisanship hypothesis still fits very well.

As can be seen in figure 6, in the nineties the strongest fiscal adjustments were taken by leftist governments. This makes the comparison more difficult, since the number of adjustments held by leftist governments doubles the number of adjustments held by rightist ones[19].

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[19] If a different definition of fiscal adjustment was used, for example considering episodes of fiscal adjustment as every case in which the variation of the cyclically adjusted primary budget balance was greater than 0, the total number of cases of adjustment would have increased from 12 to 34, out of which 17 were held under leftist governments and 17 under rightist governments.

More confusion of strategies appear in the nineties, with some rightist governments following revenue-based strategies of adjustment like France in 1995-96 or Portugal 1992-93, and some leftist governments following expenditure-based adjustment such as Denmark 1996-99 and Sweden 1995-98.

Figure 6: Strategies of Fiscal Adjustment, 1992-2001
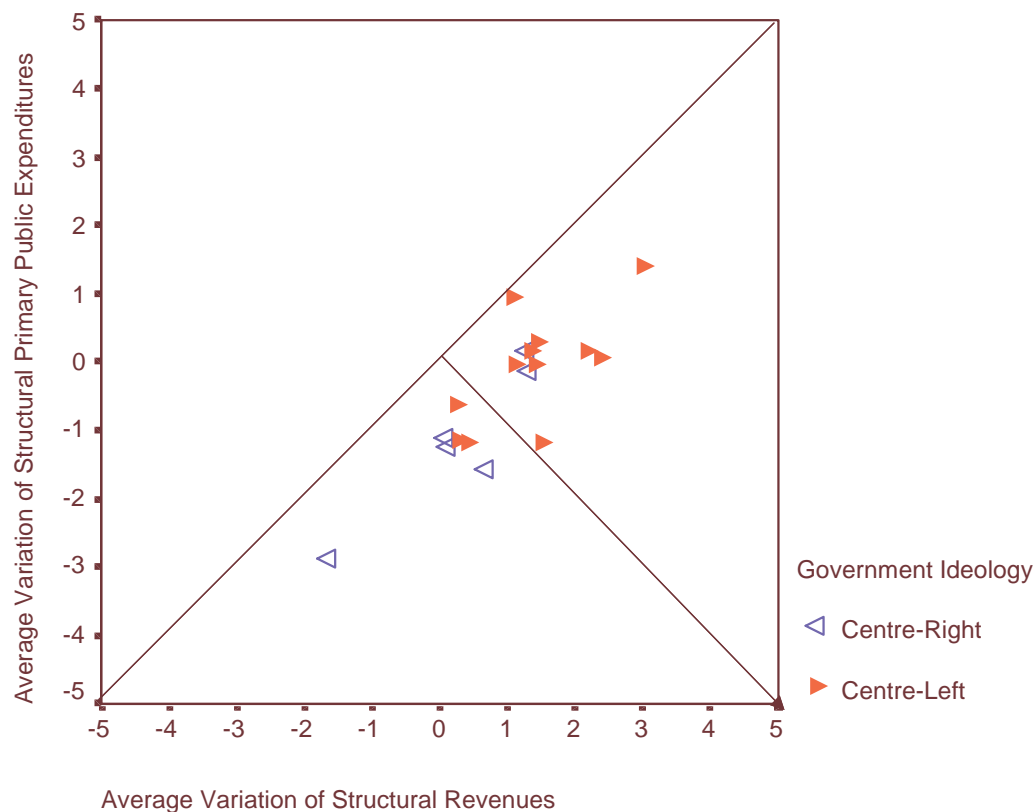
These illustrative results stress the importance of looking at the composition of the adjustment strategies. That is, when the effect of politics fades away in aggregate magnitudes, it is necessary to look at minor components before arriving at definitive conclusions.

To study the effect that political and economic factors have had on strategies of fiscal adjustments and the composition of the budget during episodes of fiscal consolidation, I run the same regressions than in section 3.3., but now only for the 53 cases selected as fiscal adjustment episodes.

$$\Delta Y_{i,t} = \alpha_0 + \alpha_1 BBAL_{i,t-1} + \delta_1 \Delta U_{i,t} + \delta_2 \Delta P_{i,t} + \beta_K X_{i,t} + C_i + \varepsilon_{i,t} \qquad (2)$$

The technique used now is OLS with robust standard errors, with country dummies and no year dummies, because the panel is markedly unbalanced, and the environment was assumed to be common for every EU country in the nineties[20].

Given the fact that now observations are episodes of fiscal adjustment that normally last longer than one year, the values in levels and in first differences of the dependent and independent variables are averages of the levels and variations of the whole period of adjustment. A new dependent variable is created, "Strategy Type", which is the sum of the average varia-

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[20] Also if time dummies had been included, the estimations would have encountered a problem of insufficient degrees of freedom, since the sample is small (N=53).

tion of cyclically adjusted revenues and cyclically adjusted primary expenditures. The higher the value of "Strategy Type" in a fiscal adjustment episode, the more expansionary of the public sector was the strategy followed by the corresponding government.

Results for the aggregate measures of the adjustment composition are presented in the table below.

Table 7: Strategies of Fiscal Adjustment. Main Aggregates, 1960-2001

	Var. Revenues	Var. Expenditures	Strategy Type
Budget Balance t-1	-0.092**	0.023	-0.068
	(2.32)	(0.67)	(1.13)
Var.Unemploymt	-0.349**	0.442***	0.791***
	(2.42)	(2.89)	(2.89)
Var.Prices	-0.008	-0.016	-0.024
	(0.61)	(0.95)	(0.91)
Government-Left	0.012***	0.015***	0.027***
	(3.26)	(3.05)	(3.37)
Coalition Size	0.241**	0.193*	0.434**
	(2.46)	(1.69)	(2.13)
Cabinet Size	0.023	0.062	0.085
	(0.40)	(1.06)	(0.84)
Months - Election	-0.441	0.215	-0.227
	(1.65)	(0.70)	(0.45)
Constant	0.150	-2.363***	-2.217**
	(0.26)	(3.36)	(2.05)
Observations	53	53	53
R-squared	0.40	0.40	0.43
F(7,45)	4.09	3.56	4.14
Prob>F	0.0015	0.0040	0.0014

Robust t-statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

As table 7 shows, results confirm the initial hypotheses. During periods of fiscal adjustment between 1960-2000, bigger coalitions, bigger cabinets, and more leftist governments were associated to growing revenues and expenditures, and thus followed revenue-based strategies of adjustment. The effect of ideology was the only statistically significant. Though not statistically significant, the effect of closeness to elections was contrary to what could be expected (revenues increased and expenditures decreased as the election was closer). This is probably the result of the overlapping of the "electoral calendar" in some of the countries that needed stronger adjustments between 1995-1998 and the "Maastricht calendar"[21].

The analysis of the effect that the political variables had on the individual components of the budget during episodes of fiscal adjustment (see table below), confirms again the hypotheses. Coalition size and cabinet size were positively associated with increases in transfers, though these effects were not statistically significant.

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[21] Only the effect of elections can be somewhat different, since it is unlikely that we observe many elections during fiscal adjustment episodes, because when elections are close politicians postpone their consolidation plans.[21]. Consolidations only will take place during elections in cases where the fiscal adjustment is "unavoidable", and has to comply with an inalterable calendar. This was the case in the run-up to EMU in the nineties, and the strong influence of this event in the whole sample of fiscal adjustments in Europe, contributes to this different effect of elections on fiscal policies than the one we saw in the section were the whole sample was analyzed. (See the already mentioned article by *New York* Times, March 25, 1997 for a description of this calendars' overlapping).

Table 8: Strategies of Fiscal Adjustment. Individual Items, 1960-2001

	Vindtax	Vdirtax	Vfincon	Vpwages	Vstransf	Vpinvest
Budget Balance t-1	-0.032	-0.023	0.024	0.018	-0.010	0.025**
	(1.47)	(1.20)	(1.22)	(1.43)	(0.44)	(2.24)
Var.Unemploymt	0.045**	-0.031*	0.064	0.083	0.372***	0.007
	(2.06)	(1.72)	(0.60)	(1.43)	(3.12)	(0.22)
Var.Prices	0.011	0.007	-0.001	-0.003	-0.004	0.010
	(1.40)	(0.67)	(0.20)	(0.44)	(0.33)	(1.41)
Government-Left	0.003	0.006**	0.007***	0.005***	0.001	0.012**
	(1.42)	(2.39)	(2.99)	(3.18)	(0.30)	(2.06)
Coalition Size	0.025	0.109	0.079	0.030	0.001	0.020
	(0.49)	(1.48)	(0.86)	(0.66)	(0.30)	(0.86)
Cabinet Size	0.016	-0.010	-0.004	-0.010	0.035	0.027*
	(0.60)	(0.21)	(0.10)	(0.43)	(0.75)	(1.85)
Months - Election	-0.214	0.040	-0.082	0.011	-0.056	-0.023
	(1.61)	(0.22)	(0.40)	(0.11)	(0.23)	(0.32)
Constant	0.050	0.024	-0.383	-0.237	-0.468	-0.659*
	(0.18)	(0.05)	(1.09)	(1.41)	(0.98)	(2.01)
Observations	53	53	51	53	53	53
R-squared	0.18	0.12	0.12	0.32	0.19	0.28
F(7,45)	3.83	1.28	2.89	3.84	2.92	2.81
Prob>F	0.0024	0.2799	0.0145	0.0024	0.0132	0.0163

Robust t-statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Most importantly, results show that ideology of the party in government is the most important political variable affecting the evolution of different items of the budget during episodes of fiscal consolidation. Leftist governments followed strategies of adjustment that increased revenues (mostly from direct taxes) to finance maintenance or even increase of expenditures, especially, public consumption, the government wage bill and public investments. The rest of public expenditures were also positively affected by leftist governments, though they were not statistically significant.

These results are very important, since according to prominent studies mentioned in previous sections, consolidations that rely on increases in revenues and do not cut the government wage bill and public transfers are unlikely to be successful[22]. Nevertheless, in relation to the EMU process, it should be recalled at this point that evidence from section 3.3 showed already that since 1995 all governments started to reduce slowly social transfers, and that the effect of a more vigilant and stronger European Commission could slowly change leftist strategies at the aggregate level.

Nevertheless, these results present very clear evidence that, even under the strongest pressures for further convergence on general budget balances, European governments have still found ways to formulate differentiated fiscal policies at the level of the individual items of the budget's composition.

Very important in this respect is the evidence that leftist governments still tried to affect the supply-side of the economy investing relatively more than rightist governments. This preference is so strong that was maintained even during episodes of fiscal adjustment, when typically public investment is either frozen or reduced. The fact is that under a general trend of decreasing public provision of physical capital since the 1970s, in the last decade socialist governments seem to have been successful in maintaining or even increasing the share of the GDP dedicated to public investment.

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[22]   See for example Alesina, Perotti and Tavares (1998).

Table 9: Average Public Investment by Cabinet´s Ideology in the EU, 1970-2001

Average public investment (%GDP) by government (EU-15):	1970-1989	1990-2001	1993-97 (Maastricht Effort)
Right-wing governments	3.30 (n=145)	2.68 (n=59)	2.61 (n=28)
Center governments	3.75 (n=60)	2.75 (n=62)	2.73 (n=31)
Left-wing governments	3.78 (n=78)	2.88 (n=43)	3.06 (n=16)

Source: Own elaboration, based on AMECO database (2001)

5. Conclusion

This article has answered the following two questions: what determines the composition of the budget in general, and what explains that different countries follow different strategies of adjustment during episodes of fiscal consolidation.

Results have confirmed that even under the strict provisions of the Maastricht criteria and the Stability and Growth Pact, domestic economic and political variables are still very important determinants of the budget's composition in general, but also during adjustment episodes in particular.

With respect to the impact of political variables, and once economic conditions are taken into account, bigger coalitions, bigger cabinets, more leftist governments and closeness of elections affected positively the increase in public expenditures, specially social transfers, between 1970-94. Nevertheless, this influence was reversed during the second half of the nineties. Interestingly, evidence shows that ideology was the strongest determinant of the composition of the budget during this period, when leftist governments reoriented their policies, and decided to use increasing revenues from direct taxes to balance the budget and to maintain or increase the government wage bill (public employment and wages) and public investment (to affect the economy in the supply side), even at the expense of reductions in subsidies, consumption and social transfers. The importance of these political variables, and specially the role of the cabinet's ideology, is confirmed when adjustment episodes are studied in isolation.

Because the composition of fiscal adjustment is related to its likelihood of success, apparently decisions such as those taken by some European countries in the nineties that followed a revenue-based adjustment to quickly qualify for EMU, should have never been adopted because they were not economically optimal in the medium run. In fact, some of these countries are showing difficulties to keep their budgets balanced during the current economic slowdown.

By pointing out the influence that political factors have of fiscal policy, this article is important to understand why those decisions were made, and why those adjustment strategies were chosen.

Acknowledgements

Appendix: Definition of Variables and Sources of Data

The set of variables used in all regressions of this article are defined as follows:

1. Economic variables:

- Annual variation of cyclically Adjusted primary budget balance; Lagged budget balance; and all Budget components.

Data for primary budget balance, total revenues, and total primary expenditures, was cyclically adjusted according to the European Commsission´s method. The DG ECFIN method involves three main steps. In the first step, the output gap is computed as the difference between the actual output and an estimated output trend, applying the Hodrick-Prescott (HP) filter. In the second step, the budget sensitivity to the output gap is computed. This allows to compute the cyclical component of the budget. Finally, the cyclically adjusted budget balance is obtained by deducting the cyclical component from the actual government budget balance.

Budget components at more disaggregate levels were not cyclically adjusted.

- Annual variation of the Unemployment rate (Var. Unemployment).

- Annual variation of Consumer Price Index (Var. Prices)

SOURCE: AMECO-Macroeconomic database of the European Commission. DGECFIN. Brussels. Update January 2001.

2. Political Variables:

- Socialist Control of the Cabinet (Government-Left).

Social-democratic and other left parties in percentage of total cabinet posts, weighted by days. This variable runs continuously from 0 to 100.

SOURCE: Armingeon, Beyele and Menegale (2000).

- Number of Parties in the Coalition (Coalition Size)

Borrowed from Prof. Roberto Perotti.

SOURCE: Woldendorp, Keman and Budge (1993) and *Europa Yearbook* for Greece, Portugal and Spain (the whole period), and all countries from 1995-2000.

- Number of Spending Ministers (Cabinet Size)

Borrowed from Prof. Roberto Perotti.

This variable is the sum of the following ministers: 1) Industry or Trade and/or ministers with related and/or subdivided competences like Foreign Trade, Commerce, and State Industries (if not attributed to Public Works-see next); 2) Public Works and/or Infrastructure and/or ministers with related and/or subdivided competences like (Public) Transportation, Energy, Post, Telecommunications, Merchant Marine, Civil Aviation, National Resources, Construction (if not specifically attributed to Housing-see below), Urban Development, etc; 3) Defense, 4)Justice; 5) Labour; 6) Education; 7) Health; 8) Housing; 9) Agriculture. Also all ministers with economic portfolio are added to this group: 10) Finance and/or ministers with related and/or subdivided competences like First Lord of the Treasury, Budget, Taxation, etc.; 11) Economic Affairs and/or ministers with related and/or subdivided competences like (Regional) Economic Planning or Development, Small Businesses.

SOURCE: Woldendorp, Keman and Budge (1993) and *Europa Yearbook* for Greece, Portugal and Spain (the whole period), and all countries from 1995-2000.

- Months to Next Election (Months-Election).

This variable takes values: 0, 12, 24, 36 and 48 depending on the distance between the current year, and the year in which the next general election will be celebrated.

SOURCE: Election dates are from Armingeon, K. et al. 2000. "Comparative Political Data Set". University of Berne.

References

ALESINA Alberto (1989), "Politics and Business Cycles in Industrial democracies", *Economic Policy*, 8, pp. 57-98.

ALESINA Alberto and ARDAGNA Silvia (1998) "Tales of Fiscal Contractions: Fiscal Adjustments. Why They Can be Expansionary", *Economic Policy*, 27, pp. 489-543.

ALESINA Alberto, COHEN Gerald D. and ROUBINI Nuriel (1992), "Macroeconomic Policies and Elections in OECD Democracies", *Economics and Politics*, 4, pp. 1-30.

ALESINA Alberto and ROUBINI Nuriel (1992), "Political Cycles: Evidence from OECD Economies", *Review of Economic Studies*, 59, pp. 663-688.

ALESINA Alberto and PEROTTI Roberto (1995), "The Political Economy of Budget Deficits", *IMF Staff Papers*, 42 (1), pp.1-31

ALESINA Alberto and PEROTTI Roberto (1995), "Fiscal Expansion and Fiscal Adjustments in OECD Countries". *Economic Policy*, 21, pp. 205-248.

ALESINA Alberto and PEROTTI Roberto (1996a), "Budget Deficits and Budget Institutions". *NBER Working Papers*, No. 5556.

ALESINA Alberto and PEROTTI Roberto (1996b), "Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects", *IMF Working Paper*, WP/96/70.

ALESINA Alberto, PEROTTI Roberto and TAVARES José (1998), "The Political Economy of Fiscal Adjustments", *The Brookings Papers on Economic Activity*, 0 (1), pp.197-248.

ARMINGEON K., BEYELER M. and MENEGALE I. (2000), "Comparative Political Data Set 1960-1998", Institute of Political Science, University of Berne.

BECK Nathaniel and KATZ Jonathan (1995), "What to do (and not to do) with Time-Series Cross-Section Data", *American Political Science Review* 89 (3), pp. 634-647.

BECK Nathaniel and KATZ Jonathan (1996) "Nuisance versus Substance: Specifying and Estimating Time-Series Cross-Section Models", *Political Analysis*, 6, pp. 1-37.

BOIX Carles (1996), *Partidos Políticos: Crecimiento e Igualdad. Estrategias Económicas Conservadoras y Socialdemócratas en la Economía Mundial*. Madrid, Alianza Universidad.

BOIX Carles (1997), "Political Parties and the Supply Side of the Economy: The Provision of Physical and Human Capital in Advance Economies, 1960-90". *American Journal of Political Science*, 41(3), pp. 814-845.

BUCHANAN James M. (1960), *Fiscal Theory and Political Economy*, Chapel Hill, North Carolina, University of North Carolina Press.

BUCHANAN James M. and WAGNER, R.E. (1976), "Revenue Structure, Fiscal illusion and Budgetary Choice", *Public Choice*, 25, pp. 45-61.

BUTI Marco, FRANCO Daniele and ONGENA H. (1998), "Fiscal discipline and Flexibility in EMU: The Implementation of the Stability and Growth Pact", *Oxford Review of Economic Policy*, 14, pp. 81-97.

BUTI Marco and SAPIR André (1998), *Economic Policy in EMU*, Oxford: Oxford University Press.

CARLSEN F. (1997), "Counterfiscal Policies and Partisan Politics: Evidence form Industrialized Countries", *Applied Economics*, 29, PP. 145-151.

EUROPEAN COMMISSION (1998), *Convergence Report*, Brussels.

EUROPEAN COMMISSION (2000a), DG ECFIN, AMECO-Macroeconomic Database: 1960-2001, Brussels.

EUROPEAN COMMISSION (2000b), "Public Finances in EMU-2000", *European Economy-Report and Studies*, 3, Luxembourg, Office for Official Publications of the EC.

EUROPEAN COMMISSION (2001), "The Contribution of Public Finances to Growth and Employment: Improving Quality and Sustainability", Commission's Communication to the Council. COM (2000) 846 final, Partially published in *European Economy*, 1, Supplement A, Luxembourg, Office for Official Publications of the EC.

GARRETT Geoffrey (1993), "Economic Internationalization and Economic Policy in the Advanced Industrial Democracies", Stanford University, Mimeo.

GARRETT Geoffrey and LANGE Peter (1991), "Political Responses to Interdependence: What is "Left" for the Left?", *International Organization*, 45, pp. 539-564.

GARRETT Geoffrey (1998), *Partisan Politics in the Global Economy*, Cambridge, Massachussets, Cambridge University Press

HALLERBERG Marc and VON HAGEN Jurgen (1997), "Electoral Institutions, Cabinet Negotiations and Budget Deficits in the European Union (EU)", *CEPR Working Paper*, 1555.

KAUFMAN Robert and SEGURA-UBIERGO Alex (2000), "Globalization, Domestic Politics and Welfare Spending in Latin America. A Time-Series Cross-Section Analysis, 1973-1997", *World Politics*, 53 (4), pp. 553-587.

LASWELL H. (1936), *Politics: Who Gets What, When and How*, New York, McGraw-Hill.

MAROTO Reyes and MULAS-GRANADOS Carlos (2001), "Duration of Fiscal Consolidations in the European Union", *FEDEA Documento de Trabajo*, 19-01.

MAROTO Reyes and MULAS-GRANADOS Carlos (2002), "Duration of Budgetary Consolidations in the European Union", *European Economy Group*, 18/2002.

MILESI-FERRETTI Gian Mari, PEROTTI Roberto and ROSTAGNO M. (1999), "Electoral Systems and the Composition of Government Spending", *CEPR Discussion Papers*, 2742, pp. 1-49.

MC DERMOTT C. and WESCOTT John (1996), "An Empirical Analysis of Fiscal Adjustments", *IMF Staff Papers*, 43, pp. 725-753.

MULAS-GRANADOS Carlos (2003), *The Political Economy of Fiscal Adjustments in the European Union*, Madrid, Instituto Juan March, Doctoral Dissertations Series (forthcoming, May 2003)

THE NEW YORK TIMES (1997), "Insecure or Jobless. Europeans Renew Protests", March 25, 1997, p.4.

PEROTTI Roberto (1998), "The Political Economy of Fiscal Consolidations", *Scandinavian Journal of Economics*, 100 (1), pp. 367-394.

PEROTTI Roberto and KONTOPOULUS Yannis (1998), "Fragmented Fiscal Policy". *Quarterly Journal of Economics* (under revision). Available Electronic Version from www.columbia.edu/economics/faculty/perotti/research

REES A. (2000), "One Fits All in EMU? One Monetary Policy for Eleven Countries", *Intereconomics,* 35(4), pp. 162-169.

ROGOFF Kenneth (1990), "Equilibrium Political Budget Cycles", *American Economic Review*, 80 (1), pp. 21-36.

ROUBINI Nouriel and SACHS Jeffrey (1989a), "Fiscal Policy: Government Spending and Budget Deficits in the Industrial Countries", *Economic Policy*, 8, pp. 99-132.

ROUBINI Nouriel and SACHS Jeffrey (1989b),"Political and Economic Determinants of Budget Deficits in the Industrial Democracies", *European Economic Review*, 33, pp. 903-938.

TANZI Vito, CHU Kee-Young and GUPTA Sanjeev (Eds.) (1999), *Economic Policy and Equity*, Washington, DC, International Monetary Fund.

THE EUROPA WORLD YEARBOOK, London. Europa Publications.

VON HAGEN Jurgen, HALLETT Andrew H. and STRAUCHT Rolf (2001), "Budgetary Consolidation in EMU", *Economics Papers*, 148, Brussels, European Commission.

WOLDENDORP Jan, KEMAN Hans and BUDGE Ian (1998), "Party Government in 20 democracies since 1945: an update (1990-1995)", *European Journal of Political Research*, 33 (1), pp. 1-16.

WEINGAST B., SHEPSLE K. and JOHNSON, C (1981), "The Political Economy of Benefits and Costs: A Neoclassical Approach to Redistributive Politics", *Journal of Political Economy*, 89, pp. 642-664.